## THERESA G. ROJAS, ESQ. Legal Counsel Guam Waterworks Authority Gloria B. Nelson Public Service

Gloria B. Nelson Public Service Building 688 Route 15, Suite 304

Mangilao, Guam 96913 Telephone No: (671) 300-6848

Email: tgrojas@guamwaterworks.org



#### BEFORE THE GUAM PUBLIC UTILITIES COMMISSION

COMES NOW, the Guam Waterworks Authority ("GWA"), by and through its counsel

BACKGROUND

Pursuant to Section 3 of Public Law (P.L.) 37-103, GWA is authorized to issue up to Five

of record, THERESA G. ROJAS, ESQ., and hereby files this petition seeking the Public Utilities

Commission (PUC") approval for GWA to issue and sale Guam Waterworks Authority Series

Hundred Sixty Million Dollars (\$560M) in revenue bonds with maturity dates not to exceed forty

(40) years and to bear interest and to be sold for such price or prices that may result in a net yield

to the bondholders not to exceed seven percent (7.00%) per annum. Under P.L. 37-103 such

bonds are to be issued for the purpose of: (1) financing capital improvement projects necessary

for compliance with regulatory enforcement actions, including any Consent Decree entered into

T.

IN THE MATTER OF:

GUAM WATERWORKS AUTHORITY'S SERIES 2025 WATER AND WASTWATER SYSTEM REVENUE BONDS

2025A Water and Wastewater Revenue Bonds.

**GWA DOCKET NO. 25-08** 

PETITION TO APPROVE THE ISSUANCE AND SALE OF THE GUAM WATERWORKS AUTHORITY WATER & WASTEWATER SERIES 2025A REVENUE BONDS

12 13

1

2

3

4

5

6

7

8

9

10

11

14

15 16

17

18

19 20

21

22

23

25

26 27

28

29

<sup>1</sup> P.L. 37-103, p. 8, June 5, 2024

GWA Docket 25-08

Petition to Approve Issuance and sale of GWA Series 2025A Water and Wastewater Revenue Bonds Page 1 of 6

17

18

19 20

21

2223

2425

26

2728

29

<sup>2</sup> P.L. 37-103, p.8-9, June 5, 2024

come due within the first 5 years from the date of issuance.

support this issuance under GWA's present five-year rate plan, ending in FY 2029.

between GWA and the U.S. Environmental Protection Agency (USEPA) and U.S. Department of

Justice; (2) financing capital improvement projects referenced in the GWA's twenty (20)-year

master plan, five (5)-year Financial Plan and/or capital improvement program or other studies

contemplating additional capital improvement projects; (3) financing capitalized interest with

respect to the bonds; (4) funding a reserve fund deposit with respect to the bonds; and for (5)

Consolidated Commission on Utilities (CCU) seeking the CCU's approval and initial

authorization to issue and sell up to Three Hundred Fifty Million Dollars (\$350,000,000) in Water

and Wastewater System Revenue Bonds as authorized by P.L. 37-103. GWA Management

reported that the \$350,000,000 amount is within GWA's current financing plan and rate structure,

as approved by the PUC in GWA's FY 2024-2029 five-year plan,<sup>3</sup> which will cover both interest

and principal payments on the borrowing once they begin. Notwithstanding, GWA Management

confirmed that for the structure of the Bonds being considered, the principal on the bonds will not

below the \$550,000,000 authorized by P.L. 37-103 and has been set to reflect "worst case"

conditions and uncertainty in the financial markets and that interest rates may increase (200 bps).

GWA Management further stated that it anticipated that no new rate increases will be required to

the proposed bond issuance, including updated estimates on the par amounts of the bonds to be

In its presentation, GWA Management further confirmed the \$350,000,000 amount is

During the June 3 meeting, GWA Management also provided additional details regarding

On June 3, 2025, GWA Management presented GWA Resolution 27-FY2025 to the

paying expenses relating to the authorization, sale and issuance of such new bonds.<sup>2</sup>

<sup>&</sup>lt;sup>3</sup> PUC Rate Decision, GWA Docket 24-05, dated September 24, 2024

28

29

Two Hundred Sixty-Seven Million Eight Hundred Twenty-Five Thousand Dollars (\$267,825,000) with approximately Two Hundred Fifty Million (\$250,000,000) in construction fund proceeds expected to be received. This estimated par value is based on current market conditions and projected interest rates as of the June 3 presentation. However, the government's financial consultants have advised that the final par amount may increase if market interest rates move unfavorably, and specifically if basis points between 25 and 100 basis points, shift against GWA. These oral reports from management were obtained from internal correspondence and a "Financing Consideration" report provided to the CCU -- the details of which were not made public. The "Financing Consideration" report is included herein as Exhibit A for the PUC's review, is labeled as "strictly private and confidential" and is proprietary to the government of Guam's and GWA's financial advisors. Therefore, and for the purpose of the PUC's public filing and/or web posting **Exhibit A** will be excluded and removed unless otherwise ordered by the PUC to be made public.

issued and the expected proceeds. As of June 3, 2025, the par value of the bonds was estimated at

On June 3, GWA received authorization from the CCU to issue up to \$350,000,000 in Water and Wastewater Bonds via GWA Resolution 27-FY2025 attached hereto as Exhibit B. As permitted under P.L. 37-103, the CCU's authorization confirms that the proceeds from the bond issuance will be used to fund capital improvements to GWA's water and wastewater systems. These improvements include, but are not limited to, projects related to water production, treatment, storage, and distribution; wastewater collection and treatment; and electrical monitoring, and control systems. Additionally, the CCU's approval confirmed that the bond proceeds may be used to finance other critical and necessary projects authorized under P.L. 37-103. These include expenditures required to comply with the 2024 Partial Consent Decree between GWA and USEPA, efforts to address GWA's water loss, and projects needed to meet regulatory requirements imposed

 by USEPA and the Guam Environmental Protection Agency (GEPA) which includes compliance and treatment costs to address emerging contaminants, such as per- and polyfluoroalkyl substances (i.e. PFAS) and Dieldrin.

#### II. REQUEST FOR APPROVAL

The enabling laws of Guam and the Public Utilities Commission (PUC) establish and require a role for the PUC in approving GWA's bond issuance. Specifically, under Public Law 37-103, the PUC must approve the issuance, terms, and conditions of any bonds. In addition, the sale of the bonds must be approved by both the Board of Directors of the Guam Economic Development Authority (GEDA) and the Consolidated Commission on Utilities (CCU). Furthermore, Title 12 GCA §12004 prohibits any utility, including GWA, from entering into contractual agreements or obligations that could impact customer rates or charges without first obtaining written approval from the PUC.

In accordance with these statutory requirements, GWA respectfully submits the proposed terms and conditions of its Series 2025A Water and Wastewater Revenue Bond issuance for the PUC's review and approval. GWA seeks authorization to issue up to Three Hundred Fifty Million Dollars (\$350,000,000) in bonds, as authorized by and subject to the conditions set forth in P.L. 37-103.

As previously stated, the proceeds from this bond issuance will fund critical infrastructure projects necessary to construct, improve, maintain, and repair GWA's water and wastewater systems. These investments will also support the planned and required additions, upgrades, and treatment systems mandated by court orders, federal regulations, and local environmental laws and GWA's current five-year rate plan contemplates and supports this issuance. The \$350 million amount is also well within the \$550 million bond limit authorized under P.L. 37-103. The public law then provides GWA the flexibility to issue an additional bond series in the future, subject to

new approvals by the CCU, the PUC, and GEDA when market conditions are more favorable and when GWA is operationally prepared to manage the additional workload associated with additional project procurements and execution.

Attached as **Exhibits A** and **B** are the most current bond summary statistics, rates and terms associated with this issuance and **Exhibit B** includes the following documentation and Orders for the PUC's review:

- (1) CCU Resolution No. 27-FY2025 authorizing the issuance and sale of GWA Water and Wastewater Revenue Bonds, adopted on June 3, 2025;
- (2) Draft of the Eleventh Supplemental Indenture, as of May 31, 2025, by and between the Guam Waterworks Authority, the Bank of Guam (as Trustee), and the U.S. Bank Trust Company, National Association, (as Co-Trustee);
- (3) Draft of the Twelfth Supplemental Indenture, drafted as of May 31, 2025, by and between the Guam Waterworks Authority, the Bank of Guam (as Trustee), and the U.S. Bank Trust Company, National Association, (as Co-Trustee);
- (4) Continuing Disclosure Agreement;
- (5) The Bond Purchase Agreement;
- (6) Preliminary Official Statement, draft issued May 31, 2025;
- (7) Consultant's Feasibility Study; issued June 1, 2025; and a
- (8) Proposed Order and Proposed Order Approving Long-Term Debt

The proposed terms and conditions as detailed within attached confirm that such issuance is favorable to GWA and its ratepayers and is issued under commercially favorable terms within the scope of authority granted under Public Law 37-103 and 12 G.C.A. Chapter 12 and Chapter 14.

### **EXHIBIT A**

# RESTRICTED TO PUC VIEW ONLY TO PROTECT NON-PUBLIC CONFIDENTIAL AND PROPRIETARY INFORMATION

#### CONSOLIDATED COMMISSION ON UTILITIES

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

#### **GWA RESOLUTION NO. 27-FY2025**

RESOLUTION AUTHORIZING THE ISSUANCE AND SALE OF GUAM WATERWORKS AUTHORITY WATER AND WASTEWATER SYSTEM REVENUE BONDS, APPROVING FORMS OF RELATED DOCUMENTS, AGREEMENTS AND ACTIONS, AND AUTHORIZING THE EXECUTION AND DELIVERY THEREOF

WHEREAS, Article 2, Chapter 14, Title 12 of the Guam Code Annotated, as amended (the "Act") authorizes Guam Waterworks Authority (the "Authority") to issue revenue bonds to raise funds for the purpose of acquiring, constructing, improving, equipping, maintaining, repairing, renewing, replacing, reconstructing or insuring the System (as that term is defined in the Act), or any part thereof, or for the purpose of redeeming or retiring any such bonds or any other prior obligations of the Authority, or for any combination of such purposes, in accordance with and subject to the requirements and limitations set forth in the Act; and

WHEREAS, this Consolidated Commission on Utilities (the "Commission") has determined that there exists a need for certain additions and improvements to the System, including but not limited to certain water production, treatment, storage and distribution projects; certain wastewater collection and treatment projects; certain electrical, monitoring and control projects; and/or such projects authorized to be financed pursuant to the Act and by Public Law No. 37-103 (the "Legislation") (collectively, the "Projects"), and has determined that it is in the public interest for the Authority to issue bonds pursuant to the Act and the Legislation for such purposes; and

WHEREAS, the Authority has determined it is necessary and desirable to issue one or more series of Guam Waterworks Authority Water and Wastewater System Revenue Bonds (the "Bonds") to finance the Projects and to pay for certain costs and make such other deposits related to the issuance of the Bonds; and

WHEREAS, the Authority has previously made and entered into an Indenture dated as of December 1, 2005 (as previously supplemented and amended, the "General Indenture"), by and among the Authority, Bank of Guam, as trustee (the "Trustee") and U.S. Bank Trust Company, National Association, as successor co-trustee (the "Co-Trustee"), which authorized one or more series of Guam Waterworks Authority Water and Wastewater System Revenue Bonds; and

WHEREAS, there has been presented to this meeting the form of an eleventh supplemental indenture, by and among the Authority, the Trustee and the Co-Trustee (the "Eleventh Supplemental Indenture") (Exhibit A), pursuant to which the Authority proposes to issue the Bonds in one or more series; and

WHEREAS, there has been presented to this meeting the form of a twelfth supplemental indenture, by and among the Authority, the Trustee and the Co-Trustee (the "Twelfth Supplemental Indenture") (Exhibit B), pursuant to which the Authority proposes to make certain springing amendments to the General Indenture, to become effective after the requisite percentage of owners of Bonds, in accordance with the terms of the General Indenture, have purchased Bonds subject to such amendments or otherwise consented thereto;

WHEREAS, there has been presented to this meeting the form of a continuing disclosure agreement (the "Continuing Disclosure Agreement") (Exhibit C), by and between the Authority and Digital Assurance Certification, L.L.C., as dissemination agent, in connection with the Bonds; and

WHEREAS, there has been presented to this meeting the form of a bond purchase agreement (the "Bond Purchase Agreement") (Exhibit D), between the Authority and RBC Capital Markets, LLC and Raymond James & Associates, Inc., as underwriters (the "Underwriters"), relating to the sale of the Bonds; and

WHEREAS, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Continuing Disclosure Agreement and the Bond Purchase Agreement are collectively referred to herein as the "Bond Documents"; and

WHEREAS, there has been presented to this meeting the form of preliminary official statement of the Authority (the "Preliminary Official Statement") (Exhibit E) relating to the Bonds; and

WHEREAS, the approval of Guam Economic Development Authority ("GEDA") is required to be obtained prior to the issuance and sale of the Bonds pursuant to the Act and Section 50103(k) of Title 12, Guam Code Annotated; and

WHEREAS, the Authority is authorized to request that the Public Utilities Commission of Guam (the "PUC") approve the issuance of the Bonds pursuant to the Act; and

WHEREAS, in accordance with the Act, the authorization provided by this resolution to sell and issue the Bonds has been approved by I Liheslaturan Guahan (the "Legislature") pursuant to the terms and conditions set forth in the Legislation;

NOW, THEREFORE, BE IT RESOLVED, by the Consolidated Commission on Utilities as follows:

Section 1. The foregoing recitals are true and correct.

Section 2. Issuance of one or more series of additional Bonds from time to time pursuant to the Act and the General Indenture, as supplemented by the Eleventh Supplemental Indenture (together hereinafter referred to as the "Indenture") is hereby authorized in an aggregate principal amount not to exceed \$350,000,000 to finance the Projects, to pay costs of issuance of the Bonds, to pay for credit enhancement, if any, to pay for capitalized interest, and to fund a deposit to a debt service reserve fund. Such Bonds shall be issued in such series and amounts and at such times as the Chair of the Commission, the Vice-Chair of the Commission, the General Manager of the Authority or the Chief Financial Officer of the Authority (the "Designated Officers") deem

appropriate, provided that such Bonds have a final maturity not later than 40 years from their date of issuance, bear interest at such rate or rates and are sold for such price or prices as shall result in a net yield to the bondholders not exceeding seven percent (7.00%) and otherwise as provided in the Legislation, and are issued and sold pursuant to the Indenture and otherwise in compliance with the provisions of the Act.

The Bonds shall be limited obligations of the Authority payable solely from revenues and other assets of the Authority pledged for such purpose and shall not be a debt or liability of the Government of Guam.

The Chair of the Commission, the other Designated Officers and the appropriate officials of the Authority are hereby authorized and directed to execute and countersign, for and on behalf and in the name of the Authority and under its seal, the Bonds, in an aggregate principal amount not to exceed the amount authorized hereby, in the form set forth in and otherwise in accordance with the Indenture.

The form of Preliminary Official Statement presented to this meeting is Section 3. hereby approved, with such additions, changes and modifications as the Designated Officers may approve upon consultation with legal counsel, such approval to be conclusively evidenced by the execution thereof or of a certificate deeming final the Preliminary Official Statement for purposes of Rule 15c2-12 of the Securities and Exchange Commission by one or more of the Designated Officers, who are each hereby authorized and directed to execute the same and to authorize the Underwriters to distribute such Preliminary Official Statement to potential purchasers of the Bonds and other interested parties. The Designated Officers are also hereby authorized to execute and cause to be delivered a final Official Statement to purchasers of the Bonds and other interested parties, with such additions, changes and modifications from the Preliminary Official Statement as the Designated Officers may approve upon consultation with staff and legal counsel, such approval to be conclusively evidenced by the execution and delivery of the final Official Statement by one or more of the Designated Officers. The Underwriters are hereby authorized to cause the Official Statement to be delivered to the purchasers of the Bonds and to be distributed in preliminary form in connection with the marketing and sale of the Bonds.

Section 4. The Bond Documents presented to this meeting are hereby approved, with such additions, changes and modifications as the Designated Officers may approve upon

consultation with legal counsel, such approval to be conclusively evidenced by the Bond Documents executed by such Designated Officers, who are each hereby severally authorized and directed to execute the same.

Section 5. The Designated Officers are hereby authorized to approve such bond insurance or other supplemental security arrangements for the Bonds as are approved by the Designated Officers, and to approve any other similar agreements deemed by the Designated Officers to be necessary or appropriate in connection therewith.

Section 6. The Designated Officers or other appropriate officials of the Authority are hereby authorized and directed to do any and all things and to execute and deliver any and all documents, certificates, notices, directions, consents and agreements which they may deem necessary or advisable in order to effectuate the purposes of this resolution, including, without limitation, closing documents and certificates, a tax certificate, amendments to the Bond Documents or any existing agreements and any documents or agreements necessary in order to obtain credit enhancement for the Bonds or the obligations of the Authority with respect thereto.

Section 7. All actions heretofore taken by the officers, representatives or agents of the Authority in connection with the issuance and sale of the Bonds are hereby ratified, confirmed and approved.

Section 8. The Bonds shall not be issued without the approval of the PUC in accordance with the Act and Chapter 12 of Title 12, Guam Code Annotated, and of GEDA, and shall be in all respects subject to the terms and conditions of such approvals, and to the terms and conditions of the Legislation.

<u>Section 9.</u> This resolution shall take effect from and after its adoption.

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

DULY AND REGULARLY ADOPTED AND APPROVED this 3rd day of June, 2025.

Certified by:

Attested by:

FRANCIS E. SANTOS

Chairperson

MELVIN F. DUENAS

Secretary

#### SECRETARY'S CERTIFICATE

I, MELVIN F. DUENAS, Secretary for the Consolidated Commission on Utilities do hereby certify as follows:

The foregoing is a full, true and correct copy of a resolution duly adopted at a regular meeting of the members of the Consolidated Commission on Utilities duly and legally held at the regular meeting place thereof on June 3, 2025, of which meeting all of said members had due notice and at least a majority thereof were present.

At said meeting said resolution was adopted by a majority of all the members of said Commission by the following vote:

AYES:

NAYS:

0\_\_\_

ABSENT:

O

ABSTAIN:

SO CERTIFIED this 3<sup>rd</sup> day of June, 2025.



**MELVIN F. DUENAS** 

Secretary, Consolidated Commission on Utilities

#### **GUAM WATERWORKS AUTHORITY**

and

BANK OF GUAM, as Trustee,

and

U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION, as Co-Trustee

#### ELEVENTH SUPPLEMENTAL INDENTURE

Dated as of [July] 1, 2025

Relating to

\$[PAR AMOUNT]
Guam Waterworks Authority
Water and Wastewater System Revenue Bonds
Series 2025A

#### TABLE OF CONTENTS

		Page
ARTICLE LIII DEFINITIO	NS	2
SECTION 53.01	Definitions	2
ARTICLE LIV AUTHORIZ	ATION AND TERMS OF THE SERIES 2020A BONDS	3
SECTION 54.01	Authorization of Series 2025A Bonds	3
SECTION 54.02	Terms of Series 2025A Bonds; Appointments; Designations	4
SECTION 54.03	Terms of Redemption of the Series 2025A Bonds	5
SECTION 54.04	Special Covenants as to Book-Entry Only System for Series 2025A Bonds	6
SECTION 54.05	Waiver of Brokerage Confirmations	7
	OF SERIES 2025A BONDS; APPLICATION OF PROCEEDS; OS AND ACCOUNTS	8
SECTION 55.01	Issuance of Series 2025A Bonds	8
SECTION 55.02	Application of Proceeds of Series 2025A Bonds and Other Moneys	8
SECTION 55.03	Establishment of Funds and Accounts for Series 2025A Bonds; Debt Service Fund; Bond Reserve Fund	8
ARTICLE LVI TAX COVE	NANTS	10
SECTION 56.01	Series 2025A Rebate Account	10
SECTION 56.02	Tax Covenants for Series 2025A Bonds	10
SECTION 56.03	Continuing Disclosure	11
SECTION 56.04	Consent to Amendment of Indenture	11
EXHIBIT A FORM OF BO	ND	1

THIS ELEVENTH SUPPLEMENTAL INDENTURE, made and entered into and dated as of [July] 1, 2025, by and among the GUAM WATERWORKS AUTHORITY, a duly organized public corporation of the government of Guam (the "Authority"), BANK OF GUAM, a domestic banking corporation duly organized and existing under and by virtue of the laws of Guam, having a corporate trust office in Guam, and being qualified to accept and administer the trusts hereby created and to do business within Guam, as trustee (the "Trustee"), and U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION, a national banking association organized under the laws of the United States of America and qualified to accept and administer the trusts hereby created, as co-trustee (the "Co-Trustee"),

#### WITNESSETH:

WHEREAS, pursuant to Article 2, Chapter 14 of Title 12 of the Guam Code Annotated (the "Act"), the Authority is authorized to issue and sell revenue bonds to raise funds for the purpose of acquiring, constructing, improving, equipping, maintaining, repairing, renewing, replacing, reconstructing or insuring the System (as defined in the Indenture), or any part thereof, or for the purpose of refunding any such bonds or any other prior obligations of the Authority, or for any combination of such purposes;

WHEREAS, the Authority has determined to issue revenue bonds for such purposes and to that end has duly entered into that certain Indenture, dated as of December 1, 2005 (the "Indenture"), between the Authority and the Trustee, to secure the payment of the principal thereof and the interest and premium, if any, thereon, and the observance of the covenants and conditions therein contained;

WHEREAS, revenue bonds may be issued pursuant to the Indenture and one or more indentures supplemental thereto ("Supplemental Indentures"), from time to time, in an aggregate principal amount not limited except as therein provided, and said revenue bonds are to be designated as the "Guam Waterworks Authority Water and Wastewater System Revenue Bonds" (the "Bonds");

WHEREAS, the Authority, the Trustee and the Co-Trustee have heretofore entered into a Supplemental Indenture, dated as of December 1, 2005, pursuant to which \$101,175,000 aggregate principal amount of Bonds further designated as "Series 2005 Bonds" were issued, a Supplemental Indenture, dated as of November 1, 2010, pursuant to which \$118,825,000 of Bonds further designated as "Series 2010 Bonds" were issued, a Third Supplemental Indenture, dated as of December 1, 2013, pursuant to which \$172,630,000 of Bonds further designated as "Series 2013 Bonds" were issued, a Fourth Supplemental Indenture, dated as of August 1, 2014, pursuant to which \$85,600,000 of Bonds further designated as "Series 2014 Bonds" were issued, a Fifth Supplemental Indenture, dated as of February 1, 2016, pursuant to which \$143,310,000 aggregate principal amount of Bonds further designated as "Series 2016 Bonds" were issued, a Sixth Supplemental Indenture, dated as of December 1, 2017, pursuant to which \$107,660,000 aggregate principal amount of Bonds further designated as "Series 2017 Bonds" were issued, a Seventh Supplemental Indenture, dated as of June 1, 2020, pursuant to which \$134,000,000 aggregate principal amount of Bonds further designated as "Series 2020A Bonds" were issued, an Eighth Supplemental Indenture, dated as of August 1, 2020, pursuant to which \$166,075,000 aggregate principal amount of Bonds further designated as "Series 2020B Bonds" were issued, a Ninth Supplemental Indenture, dated as of March 1, 2024, pursuant to which \$133,575,000 aggregate principal amount of Bonds further designated as "Series 2024A Bonds" were issued, and a Tenth Supplemental Indenture, dated as of March 1, 2024, pursuant to which \$51,275,000 aggregate principal amount of Bonds further designated as "Series 2024B Bonds" were issued;

WHEREAS, it is now desirable and necessary and in the best interests of the Authority to authorize the issuance of \$[PAR AMOUNT] aggregate principal amount of Bonds further designated as "Series 2025A Bonds" (the "Series 2025A Bonds") to raise funds for the purposes of financing the

Series 2025A Project (as defined herein), funding capitalized interest on the Series 2025A Bonds, making a deposit into the Bond Reserve Fund, and paying costs of issuance;

WHEREAS, pursuant to and subject to the terms and conditions set forth in Public Law No. 37-103, the Legislature of Guam, as required by the GEDA Law (as defined herein) approved the terms and conditions of the issuance of the Series 2025A Bonds, so long as the Series 2025A Bonds meet the requirements set forth in the Act;

WHEREAS, the Guam Economic Development Authority has approved the issuance and sale of the Series 2025A Bonds as required by the GEDA Law;

WHEREAS, all acts, conditions and things required by the laws of the United States of America and the laws of Guam to exist, to have happened and to have been performed precedent to and in connection with the issuance of the Series 2025A Bonds exist, have happened, and have been performed in regular and due time, form and manner as required by law, and the Authority is now duly authorized and empowered, pursuant to each and every requirement of law, to issue said Bonds for the purpose, in the manner and upon the terms herein provided;

WHEREAS, no Event of Default (as defined in the Indenture) has occurred or is now occurring;

NOW, THEREFORE, THIS ELEVENTH SUPPLEMENTAL INDENTURE WITNESSETH, in consideration of the premises and of the mutual covenants herein contained and of the purchase and acceptance of the Series 2025A Bonds by the owners thereof, and for other valuable considerations, the receipt of which is hereby acknowledged, the Authority does hereby covenant and agree with the Trustee and the Co-Trustee as follows:

#### ARTICLE LIII

#### **DEFINITIONS**

SECTION 53.01 <u>Definitions</u>. Unless the context otherwise requires, the terms defined in the Indenture shall, for all purposes of this Supplemental Indenture and of any certificate, opinion or other document herein mentioned, have the meanings specified in the Indenture.

In addition, unless the context otherwise requires, the terms defined in this Section shall for all purposes of the Indenture and this Supplemental Indenture and of any certificate, opinion or other document herein mentioned, have the meanings herein specified.

"Bond Year" means, with respect to the Series 2025A Bonds, the period of twelve consecutive months ending on [CLOSING DATE ANNIVERSARY] of each year if Series 2025A Bonds are or will be Outstanding in such twelve-month period; provided that the first Bond Year shall commence on the date of delivery of the Series 2025A Bonds and end on [CLOSING DATE ANNIVERSARY], 2026.

"DTC" means The Depository Trust Company, New York, New York, and its successors and assigns.

"GEDA Law" means Section 50103(k) of Title 12, Guam Code Annotated, as in effect as of the dated date hereof and as may be amended from time to time.

"Series 2025A Bonds" means the \$[PAR AMOUNT] aggregate principal amount of Guam Waterworks Authority Water and Wastewater System Revenue Bonds, Series 2025A.

"Series 2025A Capitalized Interest Account" means the account by such name as established by Section 55.03(b) hereof.

"Series 2025A Construction Account" means the account by such name as established by Section 55.03(a) hereof.

"Series 2025A Costs of Issuance Account" means the account by such name as established by Section 55.03(a) hereof.

"Series 2025A Project" means, with respect to the Series 2025A Bonds, the acquisition, construction, improvement, equipping, maintenance, repair, renewal, replacement and reconstruction of those certain parts of the System to be funded with proceeds of the Series 2025A Bonds.

"Series 2025A Rebate Account" means the account by such name as established by Section 56.01 hereof.

"Series 2025A Serial Bonds" means the Series 2025A Bonds designated as Serial Bonds by Section 54.02, and for which no Mandatory Sinking Account Payments are provided.

"Series 2025A Term Bonds" means the Series 2025A Bonds designated as Term Bonds by Section 54.02, and for which Mandatory Sinking Account Payments are provided.

"Twelfth Supplemental Indenture" means the Twelfth Supplemental Indenture, dated as of [July 1], 2025, among the Authority, the Trustee and the Co-Trustee, which Twelfth Supplemental Indenture amends [and restates] the Indenture from and after the Transition Date.

"Transition Date" means the date designated in a Certificate of the Authority delivered to the Trustee and the Co-Trustee to the effect that the Owners of at least sixty percent (60%) in Accreted Value of the Bonds then Outstanding (calculated in accordance with Section 9.01 of the Indenture) have consented to the terms of the Twelfth Supplemental Indenture, and from and after such date, the amendments to the Indenture made by the Twelfth Supplemental Indenture shall be effective subject to and in accordance with the terms thereof.

#### ARTICLE LIV

#### AUTHORIZATION AND TERMS OF THE SERIES 2020A BONDS

SECTION 54.01 <u>Authorization of Series 2025A Bonds</u>. One Series of Bonds further designated as the "Guam Waterworks Authority Water and Wastewater System Revenue Bonds Series 2025A" is hereby authorized and created under the Act to raise funds for the Project Costs of the Series 2025A Project, including to fund capitalized interest on the Series 2025A Bonds, to pay the Costs of Issuance of the Series 2025A Bonds, and to make a deposit into the Bond Reserve Fund. The aggregate principal amount of Series 2025A Bonds which may be issued and Outstanding under this Supplemental Indenture shall not exceed \$[PAR AMOUNT]. The Series 2025A Bonds shall be treated as a single Series under the Indenture.

#### SECTION 54.02 <u>Terms of Series 2025A Bonds; Appointments; Designations.</u>

- (a) The Series 2025A Bonds shall be issued as fully registered Bonds without coupons in the denominations of \$5,000 or any integral multiple thereof. The Series 2025A Bonds shall be dated their date of delivery, and interest thereon (based on a 360-day year of twelve thirty-day months) shall be payable on January 1 and July 1 of each year, commencing [January 1, 2026] (each, an "Interest Payment Date" for the Series 2025A Bonds).
- (b) The Series 2025A Bonds shall mature on the date and in the amount and shall bear interest at the rate per annum specified in the following table:

Maturity Date	Principal	Interest
(July 1)	Amount	Rate

- (c) [The Series 2025A Bond maturing on \_\_\_\_\_\_ is a Term Bond.]
- (d) The Principal Payment Period for the Series 2025A Bonds shall be the twelve calendar months next preceding each maturity date or Mandatory Sinking Account Payment date for such Bonds.
- (e) The Record Date for all scheduled payments of principal of and interest on the Series 2025A Bonds shall be the 15<sup>th</sup> day of the calendar month next preceding the date each such payment is due, whether or not such 15<sup>th</sup> day is a Business Day.
- (f) The Co-Trustee is hereby appointed Paying Agent for the Series 2025A Bonds and Registrar for the Series 2025A Bonds, and the Co-Trustee's corporate trust office in Los Angeles, California, is hereby designated as the Principal Office of the Co-Trustee. The Trustee is hereby appointed Depositary for the Series 2025A Construction Account, the Series 2025A Costs of Issuance Account and the Series 2025A Capitalized Interest Account.
- The principal of and premium, if any, on each Series 2025A Bond shall be payable in lawful money of the United States of America to the Owner of such Bond, upon the surrender of such Bond at the Principal Office of any Paying Agent for such Bond. The interest on each Series 2025A Bond shall be payable in like lawful money to the person whose name appears on the bond registration books of the Registrar for such Bond as the Owner of such Bond as of the close of business on the Record Date for such Bond preceding the Interest Payment Date, whether or not such Record Date is a Business Day, such interest to be paid by check or mailed by first class mail to such Owner at such address as appears on such registration books or at such address as such Owner may have filed with the Registrar for that purpose. Upon the written request of a registered owner of one million dollars (\$1,000,000) or more in aggregate principal amount of Series 2025A Bonds, payment of interest on and principal (including Redemption Price) of such Bonds shall be made by wire transfer from the Paying Agent to the registered owner of such Bonds. Any such principal payment by wire transfer shall nevertheless be subject to prior surrender of the Series 2025A Bonds with respect to which such payment is made. Each payment of interest or principal on Series 2025A Bonds, whether by check, draft or wire transfer, shall be accompanied by information specifying for each maturity of such Bonds with respect to which such payment is being made, the amount and the CUSIP number (if available).

- (h) Each Series 2025A Bond shall bear interest from the Interest Payment Date next preceding the date of authentication thereof unless it is authenticated as of a day during the period from the Record Date preceding any Interest Payment Date to the Interest Payment Date, inclusive, in which event it shall bear interest from such Interest Payment Date, or unless it is authenticated on or before [June 15, 2025], in which event it shall bear interest from its date of delivery; provided, however, that if, at the time of authentication of any Series 2025A Bond, interest is in default on Outstanding Bonds of such Series, such Bond shall bear interest from the Interest Payment Date to which interest has previously been paid or made available for payment on the Outstanding Bonds of such Series.
- (i) The Series 2025A Bonds shall be subject to redemption as provided in Section 54.03.
- (j) The Registrar for the Series 2025A Bonds shall assign each Series 2025A Bond authenticated and registered by it a distinctive letter, or number, or letter and number, and shall maintain a record thereof which shall be available to the Authority for inspection.
- (k) The Series 2025A Bonds, the Registrar's certificate of authentication and registration and the form of assignment to appear thereon shall be in substantially the forms set forth in Exhibit A hereto, with necessary or appropriate variations, omissions and insertions as permitted or required by this Indenture.

#### SECTION 54.03 Terms of Redemption of the Series 2025A Bonds.

- (a) Extraordinary Optional Redemption. The Series 2025A Bonds are subject to redemption on any date prior to their stated maturity, as a whole, or in part so that the reduction in Annual Debt Service for the Series 2025A Bonds for each Bond Year after such redemption shall be as nearly proportional as practicable, from and to the extent of proceeds received by the Authority due to a governmental taking of the System or portions thereof by eminent domain proceedings, if such amounts are not used for additions, improvements or extensions to the System, under the circumstances and upon the conditions and terms set forth in the Indenture, at the greater of par or Amortized Value, plus accrued interest to the date fixed for redemption, without premium. "Amortized Value" means on any interest payment date, the then current value of the bond amortizing the original issue premium over the period ending on the first call date using the constant yield method.
- (b) Optional Redemption. The Series 2025A Bonds are subject to redemption prior to their stated maturity, at the option of the Authority, from any source of available moneys, on any date on or after July 1, 20\_\_, as a whole, or in part by such maturities or portions of maturities as shall be determined by the Authority (or by lot within such maturity in the absence of such a determination), at a redemption price equal to the principal amount of each Series 2025A Bond called for redemption plus interest accrued to the date fixed for redemption, without premium.
- (c) <u>Mandatory Sinking Account Redemption</u>. The Series 2025A Bonds [maturing on \_\_\_\_] are subject to redemption prior to their stated maturity in part, by lot, from Mandatory Sinking Account Payments, commencing July 1, 20\_\_, at a redemption price equal to their principal amount, plus accrued interest thereon to the date fixed for redemption, without premium, on the dates and in the amounts, as set forth below:

D 4	
Date	Amount

† Final maturity.

#### SECTION 54.04 <u>Special Covenants as to Book-Entry Only System for</u> Series 2025A Bonds.

- (a) Except as otherwise provided in subsections (b) and (c) of this Section 54.04, all of the Series 2025A Bonds initially issued shall be registered in the name of Cede & Co., as nominee for The Depository Trust Company, New York, New York ("DTC"), or such other nominee as DTC shall request pursuant to the Representation Letter. Payment of the interest on any Series 2025A Bond registered in the name of Cede & Co. shall be made on each interest payment date for such Series 2025A Bonds to the account, in the manner and at the address indicated in or pursuant to the Representation Letter.
- The Series 2025A Bonds initially shall be issued in the form of a single (b) authenticated fully registered bond, representing the aggregate principal amount of the Series 2025A Bonds. Upon initial issuance, the ownership of the Series 2025A Bonds shall be registered in the registration records maintained by the Registrar pursuant to Section 2.05 hereof in the name of Cede & Co., as nominee of DTC, or such other nominee as DTC shall request pursuant to the Representation Letter. The Trustee, the Co-Trustee, the Registrar, the Authority and any paying agent may treat DTC (or its nominee) as the sole and exclusive owner of the Series 2025A Bonds registered in its name for the purposes of payment of the principal or redemption price of and interest on such Series 2025A Bonds, selecting the Series 2025A Bonds or portions thereof to be redeemed, giving any notice permitted or required to be given to Bondowners hereunder, registering the transfer of Series 2025A Bonds, obtaining any consent or other action to be taken by Bondowners of the Series 2025A Bonds and for all other purposes whatsoever; and the Trustee, the Co-Trustee, the Registrar, the Authority and any paying agent shall not be affected by any notice to the contrary. Neither the Trustee, the Co-Trustee, the Authority nor any paying agent shall have any responsibility or obligation to any Participant (which shall mean, for purposes of this Section 54.04, securities brokers and dealers, banks, trust companies, clearing corporations and other entities, some of whom directly or indirectly own DTC), any person claiming a beneficial ownership interest in the Series 2025A Bonds under or through DTC or any Participant, or any other person which is not shown on the registration records as being a Bondowner, with respect to (i) the accuracy of any records maintained by DTC or any Participant, (ii) the payment by DTC or any Participant of any amount in respect of the principal or redemption price of or interest on the Series 2025A Bonds, (iii) any notice which is permitted or required to be given to Holders of Series 2025A Bonds hereunder, (iv) the selection by DTC or any Participant of any person to receive payment in the event of a partial redemption of the Series 2025A Bonds, or (v) any consent given or other action taken by DTC as Holder of Series 2025A Bonds. The Paying Agent shall pay all principal of and premium, if any, and interest on the Series 2025A Bonds only at the times, to the accounts, at the addresses and otherwise in accordance with the Representation Letter, and all such payments shall be valid and effective to satisfy fully and discharge the Authority's obligations with respect to the principal of and premium, if any, and interest on the Series 2025A Bonds to the extent of the sum or sums so paid. Upon delivery by DTC to the Trustee and Co-Trustee of written notice to the effect that DTC has determined to substitute a new nominee in place of its then existing nominee, the Series 2025A Bonds will be transferable to such new nominee in accordance with subsection (f) of this Section 54.04.

- In the event that the Authority elects to discontinue the book-entry system for any Series 2025A Bonds, the Trustee shall, upon the written instruction of the Authority, so notify DTC, whereupon DTC shall notify the Participants of the availability through DTC of bond certificates. In such event, such Series 2025A Bonds will be transferable in accordance with subsection (f) of this Section 54.04. DTC may determine to discontinue providing its services with respect to the Series 2025A Bonds at any time by giving written notice of such discontinuance to the Authority or the Trustee and Co-Trustee and discharging its responsibilities with respect thereto under applicable law. In such event, the Series 2025A Bonds will be transferable in accordance with subsection (f) of this Section 54.04. Whenever DTC requests the Authority, the Trustee and the Co-Trustee to do so, the Trustee, the Co-Trustee and the Authority will cooperate with DTC in taking appropriate action after reasonable notice to arrange for another securities depository to maintain custody of all certificates evidencing the Series 2025A Bonds then Outstanding. In such event, the Series 2025A Bonds will be transferable to such securities depository in accordance with subsection (f) of this Section 54.04, and thereafter, all references in this Supplemental Indenture to DTC or its nominee shall be deemed to refer to such successor securities depository and its nominee, as appropriate.
- (d) Notwithstanding any other provision of this Supplemental Indenture to the contrary, so long as all Series 2025A Bonds Outstanding are registered in the name of any nominee of DTC, all payments with respect to the principal of and premium, if any, and interest on each such Series 2025A Bond and all notices with respect to each such Series 2025A Bond shall be made and given, respectively, to DTC as provided in the Representation Letter.
- (e) The Co-Trustee is hereby authorized and requested to execute and deliver the Representation Letter and, in connection with any successor nominee for DTC or any successor depository, enter into comparable arrangements, and shall have the same rights with respect to its actions thereunder as it has with respect to its actions under this Supplemental Indenture.
- (f) In the event that any transfer or exchange of Series 2025A Bonds is authorized under subsection (b) or (c) of this Section 54.04, such transfer or exchange shall be accomplished upon receipt by the Registrar from the registered owner thereof of the Series 2025A Bonds to be transferred or exchanged and appropriate instruments of transfer to the permitted transferee, all in accordance with the applicable provisions of Sections 2.03 and 2.04 of the Indenture. In the event Series 2025A Bond certificates are issued to Holders other than Cede & Co., its successor as nominee for DTC as holder of all the Series 2025A Bonds, another securities depository as holder of all the Series 2025A Bonds, or the nominee of such successor securities depository, the provisions of Sections 2.03 and 2.04 of the Indenture shall also apply to, among other things, the registration, exchange and transfer of the Series 2025A Bonds and the method of payment of principal of, premium, if any, and interest on the Series 2025A Bonds.

SECTION 54.05 <u>Waiver of Brokerage Confirmations.</u> The Authority acknowledges that to the extent regulations of the Comptroller of the Currency or another applicable regulatory entity grant the Authority the right to receive brokerage confirmations of security transactions as they occur, the Authority specifically waives receipt of such confirmations to the extent permitted by law. The Co-Trustee shall furnish the Authority and the Trustee periodic cash transaction statements which shall include detail for all investment transactions made by the Co-Trustee.

#### ARTICLE LV

#### ISSUANCE OF SERIES 2025A BONDS; APPLICATION OF PROCEEDS; FUNDS AND ACCOUNTS

and delivery of this Eleventh Supplemental Indenture, the Authority may sell and execute and the Registrar for the Series 2025A Bonds shall authenticate and, upon the Order of the Authority, deliver the Series 2025A Bonds in an aggregate principal amount not to exceed \$[PAR AMOUNT].
SECTION 55.02 <u>Application of Proceeds of Series 2025A Bonds and Other Moneys.</u> The net proceeds received by the Authority from the sale of the Series 2025A Bonds in the amount of \$ shall be deposited with the Trustee, who shall forthwith transfer or apply such proceeds in the following manner, as directed by a Request of the Authority:
(a) The Trustee shall deposit in the Series 2025A Construction Account the amount of \$;
(b) the Trustee shall deposit in the Series 2025A Costs of Issuance Account the amount of \$;
(c) the Trustee shall deposit in the Series 2025A Capitalized Interest Account the amount of \$; and
(d) the Trustee shall transfer to the Co-Trustee, for deposit in the Bond Reserve Fund, the amount of \$, which shall bring the total amount on deposit therein to \$, which shall be at least equal to the Bond Reserve Requirement.
SECTION 55.03 <u>Establishment of Funds and Accounts for Series 2025A Bonds;</u> <u>Debt Service Fund; Bond Reserve Fund.</u>
(a) <u>Series 2025A Construction Account; Series 2025A Costs of Issuance Account.</u>
(i) To ensure the proper application of such portion of proceeds from the sale of the Series 2025A Bonds to be applied to pay Project Costs of the Series 2025A Project, there is hereby established within the Construction Fund the "Series 2025A Construction Account" which shall be held by the Trustee as Depositary therefor. The monies set aside and placed in the Series 2025A Construction Account to be applied to the Project Costs of the Series 2025A Project shall be expended for the purposes of the Series 2025A Project and shall not be used for any other purpose whatsoever.
(ii) To ensure the proper application of such portion of proceeds from the sale of the Series 20202A Bonds to be applied to pay Costs of Issuance of the Series 2025A Bonds, there is hereby established within the Series 2025A Construction Account the "Series 2025A Costs of Issuance Account" which shall be held by the Trustee as Depositary therefor. Any funds that remain on deposit in the Series 2025A Costs of Issuance Account 180 days after the Closing Date shall be transferred and deposited or otherwise allocated to the Series 2025A Construction Account and applied to Project Costs of the Series 2025A Project, and thereafter the Series 2025A Costs of Issuance Account shall be closed.
(iii) Except as otherwise provided herein, before any payment from the Series 2025A Construction Account or the Series 2025A Costs of Issuance Account therein shall be made by the Depositary, the Authority shall file or cause to be filed with the Depositary a requisition of the Authority (each a "Requisition"), such Requisition to be signed by the Chairperson or the General Manager or by any other officer of the Authority duly authorized by resolution of the Board for that

purpose and to include (1) the item number of such payment; (2) the name and address of the person to whom each such payment is due, which may be the Authority in the case of reimbursement for costs theretofore paid by the Authority; (3) the respective amounts to be paid; (4) the purpose by general classification for which each obligation to be paid was incurred; and (5) that obligations in the stated amounts have been incurred by the Authority and are presently due and payable and that each item thereof is a proper charge against the Series 2025A Construction Account or the Series 2025A Costs of Issuance Account, as specified, and has not been previously paid from said Account.

(iv) When the Authority determines that the Series 2025A Project has been completed, a Certificate of the Authority shall be delivered to the Depositary by the Authority stating: (1) the fact and date of such completion; (2) that all of the Project Costs of the Series 2025A Project have been determined and paid (or that all of such costs have been paid less specified claims that are subject to dispute and for which a retention in the Series 2025A Construction Account is to be maintained in the full amount of such claims until such dispute is resolved); and (3) that the Depositary is to transfer the remaining balance in the Series 2025A Construction Account, less the amount of any such retention, to the Co-Trustee for deposit to the Bond Reserve Fund, to the extent of any deficiency therein, and then to the Debt Service Fund.

#### (b) Series 2025A Capitalized Interest Account.

(i) To ensure the proper application of such proceeds from the sale of the Series 2025A Bonds to be applied to pay Capitalized Interest on the Series 2025A Bonds, there is hereby established within the Series 2025A Construction Account the "Series 2025A Capitalized Interest Account" which shall be held by the Trustee as Depositary therefor.

(ii) In accordance with the following schedule, and without need of a Requisition, the Depositary is hereby directed to transfer all money in the Series 2025A Capitalized Interest Account to the Co-Trustee, and the Co-Trustee shall apply such money to pay interest due on the Series 2025A Bonds (which amount in respect of proceeds of the Series 2025A Bonds initially deposited therein shall not exceed the amount sufficient to pay interest on the Series 2025A Bonds to and including \_\_\_\_\_\_\_1, 20\_\_\_). Any amounts remaining in the Series 2025A Capitalized Interest Account after the final transfer shall be transferred to the Co-Trustee for deposit in the Debt Service Fund and the Depositary shall close the Series 2025A Capitalized Interest Account:

#### Series 2025A Capitalized Interest Schedule

	Capitalized Interest
<u>Date</u>	Transfer Amount
[January/July 1, 20]	\$
[January/July 1, 20]	
[January/July 1, 20]	
[January/July 1, 20 ]	
[January/July 1, 20 ]	Balance

<sup>\*</sup> Final transfer.

(c) <u>Debt Service Fund; Bond Reserve Fund</u>. As provided in Section 5.05 of the Indenture, the Series 2025A Bonds shall be payable from the Debt Service Fund, and, in accordance with Section 5.06 of the Indenture, the Series 2025A Bonds shall be secured by the Bond Reserve Fund. Pursuant to Section 5.06 of the Indenture, to the extent that moneys in the Bond Reserve Fund exceed the Bond Reserve Fund Requirement, income derived from the investment of the proceeds of

the Series 2025A Bonds in the Bond Reserve Fund prior to the completion of the Series 2025A Project shall be deposited in the Series 2025A Construction Account; otherwise such income shall be transferred and deposited in the Revenue Fund.

(d) The Series 2025A Rebate Account shall be established as provided in Section 56.01 hereof.

#### ARTICLE LVI

#### TAX COVENANTS

#### SECTION 56.01 Series 2025A Rebate Account.

(A) The Trustee, as Depositary for the Revenue Fund, shall establish and maintain within the Rebate Fund a separate subaccount designated as the "Series 2025A Rebate Account." There shall be deposited in the Series 2025A Rebate Account from amounts in the Operation and Maintenance Fund or other lawfully available moneys such amounts as are required to be deposited therein pursuant to the Tax Certificate delivered by the Authority in connection with the issuance of the Series 2025A Bonds. All money at any time deposited in the Series 2025A Rebate Account shall be held by the Trustee in trust, to the extent required to satisfy the Rebate Requirement for the Series 2025A Bonds (as defined in such Tax Certificate), for payment to the United States of America, and the United States of America is hereby granted a first lien on such money until such payment. All amounts required to be deposited into or on deposit in the Series 2025A Rebate Account shall be governed exclusively by this Section and by such Tax Certificate (which is incorporated herein by reference).

In the event that the amount in the Series 2025A Rebate Account exceeds the Rebate Requirement for the Series 2025A Bonds, upon the Request of the Authority, the Trustee shall transfer the excess from the Series 2025A Rebate Account to the Revenue Fund.

- (B) Notwithstanding any provisions of this Section, if the Authority shall provide to the Trustee an opinion of Bond Counsel that any specified action required under this Section is no longer required or that some further or different action is required to maintain the exclusion from federal income tax of interest on any Series of Bonds, the Trustee and the Authority may conclusively rely on such opinion in complying with the requirements of this Section, and, notwithstanding Article IX of the Indenture, the covenants hereunder shall be deemed to be modified to that extent.
- SECTION 56.02 <u>Tax Covenants for Series 2025A Bonds</u>. (A) The Authority intends that interest on the Series 2025A Bonds be excluded from gross income for federal income tax purposes, that the Series 2025A Bonds and the interest thereon be exempt from taxation by any state or political subdivision or the District of Columbia and that interest on the Series 2025A Bonds not be treated as a specific preference item for purposes of the federal individual and corporate alternative minimum taxes. The Authority reserves the right to determine the desired tax status of any additional Series of Bonds.
- (B) The Authority shall not use or permit the use of any proceeds of the Series 2025A Bonds or any other funds of the Authority, directly or indirectly, to acquire any securities or obligations, and shall not use or permit the use of any amounts received by the Authority in any manner, and shall not take or permit to be taken any other action or actions, which would cause any such Bond to be an "arbitrage bond" within the meaning of Section 148 of the Code or to be "federally guaranteed" within the meaning of Section 149(b) of the Code.

(C) The Authority shall at all times do and perform all acts and things permitted by law and this Indenture which are necessary or desirable in order to assure that interest paid on the Series 2025A Bonds (or on any of them) shall be excluded from gross income for federal income tax purposes and that interest paid on the Series 2025A Bonds shall not be treated as a specific preference item for purposes of the federal individual and corporate alternative minimum taxes.

SECTION 56.03 Continuing Disclosure. The Authority hereby covenants and agrees to comply with the Series 2025A Continuing Disclosure Agreement, by and between the Authority and the Co-Trustee (the "Series 2025A Continuing Disclosure Agreement"), as it may from time to time hereafter be amended or supplemented. Notwithstanding any other provision of the Indenture, failure of the Authority to comply with the requirements of the Series 2025A Continuing Disclosure Agreement shall not be considered an Event of Default and the Co-Trustee shall have no right to accelerate amounts due under the Indenture as a result thereof; provided, however, that the Trustee and the Owners of not less than 25% in principal amount of the Outstanding Series 2025A Bonds may take such action as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the Authority to comply with its obligations in this Section with respect to the Series 2025A Continuing Disclosure Agreement.

. The initial Owners of Series 2025A Bonds by their purchase of the Series 2025A Bonds agree and give their consent that from and after the Transition Date (as defined in the Twelfth Supplemental Indenture): (1) the Twelfth Supplemental Indenture shall constitute a full amendment [and complete restatement] of the Indenture; and (2) subject to the limitations of [Section 11.16] of the Twelfth Supplemental Indenture, from and after the Transition Date, in the case of any inconsistency or contradiction between the Indenture and the Twelfth Supplemental Indenture, the language of the Twelfth Supplemental Indenture shall control; and (3) notwithstanding Section 9.01 of the Indenture, no notice of the proposed execution of the Twelfth Supplemental Indenture need be mailed or otherwise provided to such Owner.

IN WITNESS WHEREOF, the GUAM WATERWORKS AUTHORITY has caused this Eleventh Supplemental Indenture to be signed in its name by its duly authorized officers; and BANK OF GUAM and U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION, in token of their acceptance of the respective trusts created hereunder, and being hereby appointed by the GUAM WATERWORKS AUTHORITY to such trusts, have caused this Eleventh Supplemental Indenture to be signed in their respective corporate names by one of their authorized officers, all as of the day and year first above written.

Ву	Chairperson of the Board
Ву	General Manager

**GUAM WATERWORKS AUTHORITY** 

Eleventh Supplemental Indenture – Guam Waterworks Authority

BANK OF GUAM, as Trustee	;
Ву	
Authorized Officer	

Eleventh Supplemental Indenture – Guam Waterworks Authority

## U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION, as Co-Trustee

By		
<i>-</i>	Authorized Officer	

 $Eleventh\ Supplemental\ Indenture-Guam\ Waterworks\ Authority$ 

The undersigned U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION, hereby accepts and agrees to perform the duties and obligations of Registrar and Paying Agent under this Eleventh Supplemental Indenture.

ASSOCIATION, as Registrar and Paying Agent			
By			
Authorized Officer			

U.S. BANK TRUST COMPANY, NATIONAL

Eleventh Supplemental Indenture – Guam Waterworks Authority

The undersigned BANK OF GUAM, hereby accepts and agrees to perform the duties and obligations of Depositary for the Series 2025A Construction Account, the Series 2025A Costs of Issuance Account and for the Series 2025A Capitalized Interest Account under this Eleventh Supplemental Indenture.

BANK OF GUAM, as Depositary
ByAuthorized Officer

Eleventh Supplemental Indenture – Guam Waterworks Authority

#### **EXHIBIT A**

#### FORM OF BOND

## GUAM WATERWORKS AUTHORITY WATER AND WASTEWATER SYSTEM REVENUE BOND SERIES 2025A

INTEREST RATE	MATURITY DATE	DATED DATE	CUSIP	
%	1, 20	[July] 1, 2025	40065F	
Registered Owner: CEDE & CO.				
Principal Sum:			DOLLARS	

The GUAM WATERWORKS AUTHORITY, a duly organized public corporation of the government of Guam (herein called the "Authority"), for value received, hereby promises to pay (but only out of the Revenues pledged therefor as hereinafter mentioned) to the registered owner identified above or registered assigns, on the maturity date specified above (subject to any right of prior redemption hereinafter mentioned), the principal sum specified above in lawful money of the United States of America; and to pay interest thereon, in like lawful money and solely from said Revenues, from the Interest Payment Date next preceding the date of authentication of this Bond unless this Bond is authenticated as of a day during the period from the Record Date preceding any Interest Payment Date to the Interest Payment Date, inclusive, in which event it shall bear interest from such Interest Payment Date, or unless this Bond is authenticated on or before [June 15, 2025], in which event it shall bear interest from its date of delivery, until payment of such principal sum shall be discharged as provided in the indenture hereinafter mentioned, at the interest rate specified above per annum, payable on January 1 and July 1 in each year, commencing [July 1, 2025]; provided, however, that if, at the time of authentication of this Bond, interest is in default hereon, this Bond shall bear interest from the Interest Payment Date to which interest has previously been paid or made available for payment. The principal (or redemption price) hereof is payable upon surrender hereof at the Principal Office of U.S. Bank Trust Company, National Association (herein called the "Paying Agent") in [Los Angeles, California] (or such other office as may be subsequently designated), and the interest hereon is payable by check or draft mailed by first class mail to the person in whose name this Bond is registered at the close of business on the fifteenth day of the month immediately preceding an interest payment date, at such person's address as it appears on the bond registration books of U.S. Bank Trust Company, National Association (herein called the "Registrar"). Upon the written request of a registered owner of \$1,000,000 or more in aggregate principal amount of Series 2025A Bonds, payment of interest on and principal (including redemption price) of such Bonds will be made by wire transfer as provided in the Indenture; provided that any such principal payment shall nevertheless be subject to prior surrender of the Series 2025A Bonds with respect to which such payment is made.

This Bond is one of a duly authorized issue of bonds of the Authority designated as the "Guam Waterworks Authority Water and Wastewater System Revenue Bonds" (herein called the "Bonds"), unlimited in aggregate principal amount, except as otherwise provided in the laws of the United States of America and the government of Guam and in the Indenture hereinafter mentioned, which issue of Bonds consists or may consist of one or more Series of varying dates, maturities, interest rates, and redemption and other provisions, all issued or to be issued pursuant to Article 2, Chapter 14 of

The Bonds and the interest thereon (to the extent set forth in the Indenture) are payable solely from Revenues (as that term is defined in the Indenture) pledged as provided in the Indenture. Subject only to the provisions of the Indenture permitting the application thereof for or to the purposes and on the terms and conditions set forth therein, said Revenues are pledged under the Indenture to secure the payment of the principal of, premium, if any, and interest on the Bonds in accordance with their terms and the provisions of the Indenture and the payment of Credit Agreement Payments and Parity Payment Agreement Payments in accordance with their terms.

The Series 2025A Bonds are subject to redemption on any date prior to their stated maturity, as a whole, or in part so that the reduction in Annual Debt Service for the Series 2025A Bonds for each Bond Year after such redemption shall be as nearly proportional as practicable, from and to the extent of proceeds received by the Authority due to a governmental taking of the System or portions thereof by eminent domain proceedings, if such amounts are not used for additions, improvements or extensions to the System, under the circumstances and upon the conditions and terms set forth in the Indenture, at the greater of par or Amortized Value, plus accrued interest to the date fixed for redemption, without premium. "Amortized Value" means on any interest payment date, the then current value of the bond amortizing the original issue premium over the period ending on the first call date using the constant yield method.

The Series 2025A Bonds are subject to redemption prior to their stated maturity, at the option of the Authority, from any source of available moneys, on any date on or after [July 1, 20\_\_], as a whole, or in part by such maturities or portions of maturities as shall be determined by the Authority (or by lot within such maturity in the absence of such a determination), at a redemption price equal to the principal amount of each Series 2025A Bond called for redemption plus interest accrued to the date fixed for redemption, without premium.

The Series 2025A Bonds are subject to redemption prior to their stated maturity in part, by lot, from Mandatory Sinking Account Payments, commencing [July 1, 20\_\_], on the dates and at a redemption price equal to the Mandatory Sinking Account Payment amount for such date set forth in the Indenture, plus accrued interest thereon to the date fixed for redemption, without premium.

Notice of any redemption, identifying the Bonds or portions thereof to be redeemed, shall be given by the Registrar not less than 30 nor more than 60 days before the date fixed for redemption by first class mail to each of the registered owners of Bonds designated for redemption at their addresses appearing on the bond registration books of the Registrar on the date the Bonds to be redeemed are

selected. Receipt of such notice by such registered owners shall not be a condition precedent to such redemption.

If this Bond is called for redemption and payment is duly provided herefor as specified in the Indenture, interest shall cease to accrue hereon from and after the date fixed for redemption.

The Series 2025A Bonds are issuable only in fully registered form in denominations of \$5,000 or any integral multiple thereof. Subject to the limitations and upon payment of the charges, if any, provided in the Indenture, this Bond may be exchanged, at the Principal Office of the Registrar, in St. Paul, Minnesota, or such other office as the Registrar shall designate, for a new fully registered Bond or Bonds, of the same Series, maturity and tenor and of any authorized denomination or denominations and for the aggregate principal amount of this Bond then remaining outstanding.

This Bond is transferable by the registered owner hereof, in person or by its attorney duly authorized in writing, at said office of the Registrar, but only in the manner, subject to the limitations and upon payment of the charges, if any, provided in the Indenture, and upon surrender and cancellation of this Bond. Upon such transfer a new registered Bond or Bonds, of the same Series and maturity and of any authorized denomination or denominations and for the same aggregate principal amount of this Bond then remaining outstanding, will be issued to the transferee in exchange therefor. The Registrar shall not be required to register the transfer of this Bond during the period established by the Trustee for the selection of Bonds for redemption or at any time after selection of this Bond for redemption.

The Authority, the Trustee, the Paying Agent and the Registrar may treat the registered owner hereof as the absolute owner hereof for all purposes, and neither the Authority, the Paying Agent nor the Registrar shall be affected by any notice to the contrary.

The Indenture and the rights and obligations of the Authority, the registered owners of the Bonds, the Trustee, the Registrar and other fiduciaries may be modified or amended at any time in the manner, to the extent, and upon the terms provided in the Indenture, provided that no such modification or amendment shall (a) extend the fixed maturities of the Bonds, or extend the time for making any Mandatory Sinking Account Payments, or reduce the rate of interest thereon, or extend the time of payment of interest, or reduce the amount of principal thereof, or reduce any premium payable on the redemption thereof, without the consent of the Owner of each Bond so affected, (b) reduce the aforesaid percentage of Owners of Bonds whose consent is required for the execution of any amendment or modification of this Indenture or permit the creation of any lien on the Revenues prior to or on a parity with the lien created by this Indenture or deprive the Owners of the Bonds of the lien created by this Indenture upon such Revenues, without in each case the consent of the Owners of all of the Bonds then Outstanding.

The Bonds are limited obligations of the Authority, payable solely from and secured by a pledge of the Revenues as provided in the Indenture. The Bonds are not a legal or equitable pledge, charge, lien or encumbrance upon any property of the Authority or upon any of its income, receipts or revenues except the Revenues pledged to the payment thereof as provided in the Indenture.

Neither the Government of Guam nor any political subdivision thereof is obligated to pay the principal of, Redemption Price, if applicable, or interest on the Bonds, except from Revenues, and neither the Authority, the Government of Guam nor any political subdivision thereof has pledged its faith or credit to the payment of the principal of, redemption price, if applicable, or interest on the Bonds.

This Bond shall not be entitled to any benefit under the Indenture, or become valid or obligatory for any purpose, until the certificate of authentication and registration hereon endorsed shall have been dated and signed by the Registrar.

It is hereby certified and recited that any and all conditions, things and acts required to exist, to have happened and to have been performed precedent to and in the issuance of this Bond exist, have happened and have been performed in due time, form and manner as required by the laws of the United States of America and the government of Guam, and that the amount of this Bond, together with all other indebtedness of the Authority, does not exceed any limit prescribed by such laws, and is not in excess of the amount of Bonds permitted to be issued under the Indenture.

UNLESS THIS BOND IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO THE ISSUER OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE, OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

[The initial Owners of Series 2025A Bonds by their purchase of the Series 2025A Bonds agree and give their consent that from and after the Transition Date (as defined in the Twelfth Supplemental Indenture): (1) the Twelfth Supplemental Indenture shall constitute a full amendment [and complete restatement] of the Indenture; and (2) subject to the limitations of [Section 11.16] of the Twelfth Supplemental Indenture, from and after the Transition Date, in the case of any inconsistency or contradiction between the Indenture and the Twelfth Supplemental Indenture, the language of the Twelfth Supplemental Indenture shall control; and (3) notwithstanding Section 9.01 of the Indenture, no notice of the proposed execution of the Twelfth Supplemental Indenture need be mailed or otherwise provided to such Owner.]

IN WITNESS WHEREOF, the GUAM WATERWORKS AUTHORITY has caused this Bond to be executed in its name and on its behalf by the manual or facsimile signature of the Chairman of the Consolidated Commission on Utilities and the Chief Financial Officer of the Authority, all as of the dated date first set forth above.

Ву_	Chairman of the Board of Directors
Ву_	Chief Financial Officer

**GUAM WATERWORKS AUTHORITY** 

# [FORM OF] CERTIFICATE OF AUTHENTICATION AND REGISTRATION

registered as of	This is one of the Bonds	described in	the within-mentioned	Indenture, which	has been
			U.S. BANK TRUST (ASSOCIATION, as F	· · · · · · · · · · · · · · · · · · ·	IONAL
			Ву		
			Author	rized Officer	

# [FORM OF] ASSIGNMENT

		I do(es) hereby sell, assign and transfer unto the ably constitute(s) and appoint(s) attorney, to transfer of substitution in the premises.
Dated: _		
		NOTICE: The signature on this Assignment must correspond with the name as it appears on the face of the within Bond in every particular, without alteration or enlargement or any change whatsoever.
Signature	e Guaranteed:	Social Security Number, Taxpayer Identification Number or other Identifying Number of Assignee:
r I	Signature must be guaranteed by a member firm of the New York Stock Exchange or a commercial bank or trust company.	
	Γransfer fees must be paid to the Registrar in n the within-mentioned Indenture.	order to transfer or exchange this bond as provided

# **EXHIBIT B**

OH&S Draft 5/31/25

#### **GUAM WATERWORKS AUTHORITY**

and

BANK OF GUAM, as Trustee,

and

U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION, as Co-Trustee

#### TWELFTH SUPPLEMENTAL INDENTURE

(2025 Prospective General Indenture)

Dated as of [July] 1, 2025

Relating to

Guam Waterworks Authority Water and Wastewater System Revenue Bonds

[to be updated]

		Page
ARTICLE I DEFINITION	S; EFFECT OF INDENTURE	1
SECTION 1.01	Definitions	1
SECTION 1.02	Equal Security	15
SECTION 1.03	Content of Certificates and Opinions	15
ARTICLE II THE BONDS	5	16
SECTION 2.01	Authorization of Bonds	16
SECTION 2.02	Execution of Bonds	16
SECTION 2.03	Transfer of Bonds	16
SECTION 2.04	Exchange of Bonds	17
SECTION 2.05	Bond Register; Right of Inspection	17
SECTION 2.06	Temporary Bonds	17
SECTION 2.07	Bonds Mutilated, Lost, Destroyed or Stolen	17
SECTION 2.08	Book-Entry Registration of Exchanges	18
	OF BONDS; ISSUANCE OF A SERIES OF BONDS; PARITY AGREEMENTS	18
SECTION 3.01	Issuance of Bonds	18
SECTION 3.02	Application of Proceeds of Bonds	18
SECTION 3.03	Establishment and Application of Construction Accounts; Modification of Projects	19
SECTION 3.04	Issuance of Additional Series of Bonds; Additional Parity Payment Agreements; Other Payment Agreements	19
SECTION 3.05	Proceedings for the Issuance of a Series of Bonds; Parity Payment Agreements	21
SECTION 3.06	Validity of Bonds	24
ARTICLE IV REDEMPTI	ON OF BONDS	24
SECTION 4.01	Terms of Redemption	24
SECTION 4.02	Selection of Bonds for Redemption	24
SECTION 4.03	Notice of Redemption	24
SECTION 4.04	Partial Redemption	25
SECTION 4.05	Effect of Redemption	26
SECTION 4.06	Rescission of Notice of Redemption	26
ARTICLE V REVENUES	AND FUNDS	26
SECTION 5.01	Pledge and Assignment of Revenues; Revenue Fund	26
SECTION 5.02	Allocation of Revenues	27

(continued)

	`	Page
SECTION 5.03	Application of Operation and Maintenance Fund	29
SECTION 5.04	Rebate Fund	29
SECTION 5.05	Application of Debt Service Fund	29
SECTION 5.06	Application of Bond Reserve Fund	30
SECTION 5.07	Application of Subordinate Securities Fund	31
SECTION 5.08	Application of Operation, Maintenance, Renewal and Replacemen Reserve Fund	nt 31
SECTION 5.09	Application of Rate Stabilization Fund	31
SECTION 5.10	Application of Capital Improvement Fund	31
SECTION 5.11	Deficiencies in Funds or Accounts	31
SECTION 5.12	Investment of Moneys in Funds	31
ARTICLE VI CERTAIN	COVENANTS	33
SECTION 6.01	Payment of Principal and Interest	33
SECTION 6.02	Against Encumbrances	33
SECTION 6.03	Sale or Other Disposition of Property	33
SECTION 6.04	Operation and Maintenance of the System	33
SECTION 6.05	Liens and Claims	34
SECTION 6.06	Insurance	34
SECTION 6.07	Books and Accounts; Financial Statements	35
SECTION 6.08	Authority Budgets	35
SECTION 6.09	Payment of Taxes, Etc	36
SECTION 6.10	Acquisition and Construction of Improvements	36
SECTION 6.11	Eminent Domain Proceeds	36
SECTION 6.12	Rate Covenant	37
SECTION 6.13	Compliance with Indenture	37
SECTION 6.14	Observance of Laws and Regulations	38
SECTION 6.15	Prosecution and Defense of Suits	38
SECTION 6.16	Further Assurances	38
SECTION 6.17	Pledge of the Government	38
ARTICLE VII EVENTS	OF DEFAULT AND REMEDIES OF BONDOWNERS	39
SECTION 7.01	Events of Default; Remedies	39
SECTION 7.02	Application of Funds Upon Default	40
SECTION 7.03	Representation of Bondowners by Trustee	41

(continued)

		Page
SECTION 7.04	Nonwaiver	41
SECTION 7.05	Actions by Trustee as Attorney-in-Fact	42
SECTION 7.06	Remedies Not Exclusive	
ARTICLE VIII THE FIDU	JCIARIES	42
SECTION 8.01	Appointment of Trustee	42
SECTION 8.02	Appointment of Co-Trustee	42
SECTION 8.03	Duties, Immunities and Liabilities of Fiduciaries	42
SECTION 8.04	Compensation	44
SECTION 8.05	Liability of Fiduciaries	45
SECTION 8.06	Right of Fiduciaries to Rely on Documents	45
SECTION 8.07	Preservation and Inspection of Documents	45
ARTICLE IX MODIFICA	TION OR AMENDMENT OF THE INDENTURE	46
SECTION 9.01	Amendments Permitted	46
SECTION 9.02	Procedure for Amendment with Consent of Bondowners	47
SECTION 9.03	Disqualified Bonds	48
SECTION 9.04	Effect of Supplemental Indenture	48
SECTION 9.05	Endorsement or Replacement of Bonds Issued Before Amendments	48
SECTION 9.06	Amendatory Endorsement of Bonds	48
SECTION 9.07	Credit Provider Consent	48
ARTICLE X DEFEASAN	CE	48
SECTION 10.01	Discharge of Indenture	48
SECTION 10.02	Discharge of Liability on Bonds	49
SECTION 10.03	Payment of Bonds after Discharge of Indenture	50
ARTICLE XI MISCELLA	NEOUS	50
SECTION 11.01	Liability of Authority Limited to Revenues	50
SECTION 11.02	Successor Is Deemed Included in All References to Predecessor	50
SECTION 11.03	Limitation of Rights to Parties and Bondowners	51
SECTION 11.04	Waiver of Notice	51
SECTION 11.05	Destruction of Bonds	51
SECTION 11.06	Severability of Invalid Provisions	51
SECTION 11.07	Notice to Authority, Trustee and Co-Trustee	51
SECTION 11.08	Evidence of Rights of Bondowners	52

(continued)

		Page
SECTION 11.09	Article and Section Headings and References	52
SECTION 11.10	Funds and Accounts	52
SECTION 11.11	Saturdays, Sundays and Legal Holidays	53
SECTION 11.12	Waiver of Personal Liability	53
SECTION 11.13	Governing Law	53
SECTION 11.14	Execution in Several Counterparts	53
SECTION 11.15	Credit Agreements and Credit Providers	53
SECTION 11.16	Indenture as Supplement to and Amendment of 2005 Indenture	53

THIS TWELFTH SUPPLEMENTAL INDENTURE, made and entered into as of [July] 1, 2025, by and between the GUAM WATERWORKS AUTHORITY, a duly organized public corporation of the government of Guam (the "Authority"), BANK OF GUAM, a domestic banking corporation duly organized and existing under and by virtue of the laws of Guam, having a corporate trust office in Guam, and being qualified to accept and administer the trusts hereby created and to do business within Guam, as trustee (the "Trustee"), and U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION, a national banking association organized under the laws of the United States of America and qualified to accept and administer the trusts hereby created, as co-trustee (the "Co-Trustee"),

#### WITNESSETH:

WHEREAS, the Authority owns certain water and sewer system facilities;

WHEREAS, pursuant to Chapter 14 of Title 12 of the Guam Code Annotated, as amended (the "Act"), the Authority is authorized from time to time by statutory legislation authority, to incur indebtedness, and issue bonds, secured by a pledge on all or any portion of the revenues of the Authority to raise funds for the purpose of establishing the System (as hereinafter defined), or acquiring lands for the System, or acquiring, constructing, improving, equipping, maintaining, repairing, renewing, replacing, reconstructing or insuring the System, or any part thereof, or for the purpose of the refunding any such indebtedness, or for any combination of such purposes;

WHEREAS, the Authority has determined to issue revenue bonds for such purposes and to that end has duly authorized the execution and delivery of this Indenture to secure the payment of the principal thereof and the interest and premium, if any, thereon, and the observance of the covenants and conditions herein contained;

WHEREAS, said revenue bonds issued hereunder are to be designated as the "Guam Waterworks Authority Water and Wastewater System Revenue Bonds" (the "Bonds") and are to be issued from time to time in an aggregate principal amount not limited except as hereinafter provided; and

WHEREAS, the forms of each series of Bonds and various other matters relating to such series shall be prescribed in indentures supplemental hereto;

NOW, THEREFORE, THIS INDENTURE WITNESSETH, that in order to secure the payment of the principal of, and the premium, if any, and interest on, all Bonds at any time issued and outstanding under this Indenture, according to their tenor, and to secure the performance and observance of all the covenants and conditions therein and herein set forth, and to declare the terms and conditions upon and subject to which the Bonds are to be issued and received, and in consideration of the premises and of the mutual covenants herein contained and of the purchase and acceptance of the Bonds by the owners thereof, and for other valuable considerations, the receipt whereof is hereby acknowledged, the Authority does hereby covenant and agree with the Trustee and the Co-Trustee for the benefit of the respective owners from time to time of the Bonds, as follows:

#### ARTICLE I

#### **DEFINITIONS; EFFECT OF INDENTURE**

SECTION 1.01 <u>Definitions</u>. Unless the context otherwise requires, the terms defined in this Section shall, for all purposes of this Indenture and of any Supplemental Indenture and of any certificate, opinion or other document herein mentioned, have the meanings herein specified. Unless

otherwise defined in this Indenture, all terms used herein shall have the meanings assigned to such terms in the Act.

"2005 Indenture" means the Indenture, dated as of December 1, 2005, as amended and supplemented, by and among the Authority, the Trustee and the Co-Trustee, providing for the issuance of Guam Waterworks Authority Water and Wastewater System Revenue Bonds.

"Account" means each account established and given a designation pursuant to this Indenture or any Supplemental Indenture.

"Accreted Value" means, with respect to any particular Bonds as of any given date of calculation, an amount equal to the sum of the principal amount of such Bonds plus accrued and unpaid interest on such Bonds as of such date, but not including interest payable on a current basis at least annually.

"Act" means Chapter 14 of Title 12 of the Guam Code Annotated, as amended, and as it may from time to time hereafter be amended or supplemented.

"Additional Bonds" means bonds, notes or other obligations of the Authority payable from Revenues and ranking on a parity with the Bonds then outstanding and authorized to be issued under and pursuant to Sections 3.04 and 3.05.

"Aggregate Annual Debt Service" means, for any year, Annual Debt Service for such year on all Bonds.

"Annual Debt Service" means, for any year, and with respect to any Bonds (A) the sum of (1) the interest falling due on such Bonds then Outstanding (assuming that all then Outstanding Serial Bonds are retired on their respective maturity dates and that all then Outstanding Term Bonds are retired at the times of and in amounts provided for by the Mandatory Sinking Account Payments applicable to such Term Bonds), but not including Capitalized Interest, plus (2) the principal amount of such Bonds then Outstanding that are Serial Bonds falling due by their terms, plus (3) the aggregate amount of all Mandatory Sinking Account Payments falling due with respect to such Bonds then Outstanding that are Term Bonds, plus (4) the aggregate amount of Payment Agreement Payments under Related Parity Payment Agreements then Outstanding falling due, minus (B) the aggregate amount of Payment Agreement Receipts under Related Payment Agreements then Outstanding falling due; all as calculated for said year and provided that for purposes of determining the interest payable on Variable Rate Bonds, any obligation of the Authority to make Payment Agreement Payments based on a variable rate under Payment Agreements and any obligation of a Qualified Counterparty to make payments under a Payment Agreement to the Authority based on a variable rate, the following assumptions shall be made:

- (A) for purposes of determining the interest payable on Variable Rate Bonds, the interest rate used in making such determination shall be (a) for periods for which such rate has been determined, the actual interest rate on such Bonds; (b) for purposes of Section 3.05(B)(1)(c)(i)(D) for any other period, a rate equal to 1.1 times the highest rate of interest borne by such Bonds, or if such Bonds were not Outstanding during any portion of any such period bonds with similar ratings and terms, during the next preceding twelve months; or (c) for any other period or purpose, the prevailing interest rate on such Bonds as of the date of such determination:
- (B) for purposes of determining the amount of Payment Agreement Payments based on a variable rate under Parity Payment Agreements, the rate used in making such determination

shall be assumed to be (a) for periods for which such rate has been determined, the actual rate used to calculate such payments, (b) for purposes of Section 3.05(B)(1)(c)(i)(D) for any other period, a rate equal to 1.1 times the highest such rate during the next preceding twelve months, and (c) for any other period or purpose, the prevailing rate being used to determine such payment obligation as of the date of such determination; in each such case without regard to the occurrence of any event that, under the provisions of such Payment Agreement, would permit or require the Authority to make payments on any basis other than such rates;

(C) for purposes of determining the amount of payments by a Qualified Counterparty under a Payment Agreement to the Authority based on a variable rate, the rate used in making such determination shall be (a) if such Payment Agreement obligates a Qualified Counterparty to make payments to the Authority based on a variable rate that is equal to the actual rate on the Related Bonds, the actual rate on such Bonds; and (b) if such Payment Agreement obligates a Qualified Counterparty to make payments to the Authority based on a variable rate other than the actual rate on the Related Bonds (1) for periods for which such rate has been determined, the actual rate used to calculate such payments, (2) for purposes of Section 3.05(B)(1)(c)(i)(D) for any other period, a rate equal to 1.1 times the highest such rate during the next preceding twelve months, and (3) for any other period or purpose, the prevailing rate being used to determine such payment obligation as of the date of such determination; in each such case without regard to the occurrence of any event that, under the provisions of such Payment Agreement, would permit or require the Qualified Counterparty to make payments on any basis other than such rates;

and <u>provided</u>, <u>further</u>, that the principal amount of any Balloon Bonds shall be assumed to become due and payable in equal installments in each Fiscal Year for a period of twenty-five (25) years from the date of calculation.

"Authority" means the Guam Waterworks Authority, a public corporation of the Government of Guam, or any successor to the rights, powers, functions and duties with respect to the management, administration and control of the System which are now or hereafter vested in the Authority.

"Authorized Officer" of the Trustee means and includes the chairperson of the board of directors, the president, every vice president, every assistant vice president, every trust officer and any other officer or assistant officer of the Trustee, other than those specifically above mentioned, designated by a certificate of an Authorized Officer of the Trustee as an Authorized Officer for purposes of this Indenture.

"Balloon Bonds" means the aggregate principal amount of Bonds of a Series (including Capital Appreciation Bonds) that becomes due and payable, either at scheduled maturity, by Mandatory Sinking Fund Payment or by mandatory tender for purchase, in any Fiscal Year that constitutes 25% or more of the initial aggregate principal amount of such Series of Bonds.

"Board" means the Consolidated Commission on Utilities established in Chapter 79 of Title 12 of the Guam Code Annotated or any other governing board of the Authority hereinafter provided for pursuant to law.

"Bond Counsel" means an attorney or firm of attorneys designated by the Authority and having a national reputation for expertise in matters relating to governmental obligations the interest on which is excluded from gross income for federal income tax purposes under Section 103 of the Code.

"Bond Reserve Fund" means the fund by that name established pursuant to Section 5.01.

"Bond Reserve Fund Requirement" means, as of any particular date of calculation, an amount equal to [fifty percent (50%) of] the Maximum Annual Debt Service for the then current or any future Fiscal Year on all Outstanding Bonds; provided, however, that if upon issuance of a Series of Bonds, such amount would require moneys to be credited to the Bond Reserve Fund from such Bond proceeds in an amount in excess of the maximum amount permitted from tax-exempt bond proceeds under the Code, the Bond Reserve Fund Requirement shall mean an amount equal to the sum of the Bond Reserve Fund Requirement immediately preceding issuance of such Bonds plus the maximum amount permitted under the Code to be deposited therein from the proceeds of such Bonds, as specified by Certificate of the Authority.

"Bond Year" means, with respect to any Series, the period of twelve consecutive months ending on the day in each year specified in the Supplemental Indenture authorizing the issuance of such Series if Bonds are or will be Outstanding in such twelve-month period.

"Bondowner" or "Owner" or "Holder" means any person who shall be the registered owner of any Outstanding Bond, or, if such Outstanding Bond shall have a maturity of one year or less and shall have been issued in bearer form, shall mean the bearer of such Bond.

"Bonds" means the Guam Waterworks Authority Water and Wastewater System Revenue Bonds authorized by, and at any time Outstanding pursuant to, this Indenture and a Supplemental Indenture, including any Additional Bonds authorized by, and at any time Outstanding pursuant to, this Indenture and any Supplemental Indenture, as well other evidences of indebtedness for borrowed money issued from time to time by the Authority hereunder, including but not limited to bonds, notes, bond anticipation notes, commercial paper, lease or installment purchase agreements or certificates of participation therein, the payment of which constitutes a charge and lien on Revenues equal to and on a parity with the charge and lien upon the Revenues for the payment of the Guam Waterworks Authority Water and Wastewater System Revenue Bonds referenced above.

"Business Day" means any day other than a Saturday, Sunday or other day upon which banks in the cities in which the Principal Offices of the Trustee, the Co-Trustee, each Depositary, each Paying Agent and each Credit Provider are located are authorized or required to be closed.

"Capital Appreciation Bonds" means any Bonds the interest on which is not scheduled to be paid until the maturity or prior redemption thereof, or the conversion thereof to Current Interest Bonds.

"Capital Improvement" means any addition, betterment, improvement or extension of the System having costs in excess of \$100,000 and a useful life in excess of five (5) years.

"Capital Improvement Fund" means the fund by that name established pursuant to Section 5.01 for the purposes provided in Section 5.10.

"Capitalized Interest" means interest to be paid from the original proceeds of Bonds (including proceeds constituting accrued interest on the Bonds) and from income derived from the investment of such proceeds.

"Certificate of the Authority" means an instrument in writing signed by the Chairperson or by the General Manager or by any other officer of the Authority duly authorized by resolution of the Board for that purpose. Any such instrument and supporting opinions or representations, if any, may, but need not, be combined in a single instrument with any other instrument, opinion or representation, and the two or more so combined shall be read and construed as a single instrument. If and to the extent required

by the provisions of Section 1.03, each Certificate of the Authority shall include the statements provided for in Section 1.03.

"Certified Public Accountant" means (i) any nationally recognized U.S. certified public accountant or accounting firm or (ii) any other U.S. certified public accountant or accounting firm approved by each Credit Provider, if any, not then in default of its obligations under a Credit Facility.

"Chairperson" means the chairperson of the Board.

"Chief Financial Officer" means the Chief Financial Officer of the Authority.

"Code" means the Internal Revenue Code of 1986 or any similar or successor federal law.

"Construction Account" means an account by that name established pursuant to Section 3.03.

"Construction Fund" means the Guam Waterworks Authority Construction Fund established pursuant to the Act.

"Consulting Engineer" means an Independent architect, engineer, consultant, or architectural, engineering, or consulting firm experienced in water and sewer system design, construction, or operation, having a favorable reputation with respect thereto and retained by the Authority to perform the acts and carry out the duties of a Consulting Engineer under this Indenture and, in any case, nationally recognized as being experienced in the preparation of feasibility studies for use in connection with the financing of water and sewer systems.

"Costs of Issuance" means all items of expense directly or indirectly payable by or reimbursable to the Authority and related to the authorization, issuance, sale and delivery of the Bonds, including but not limited to advertising costs, Bond and official statement printing costs, costs of preparation and reproduction of documents, filing and recording fees, initial fees and charges of the Trustee, the Co-Trustee, and any Depositary, Paying Agent or Registrar, legal fees and charges, fees and disbursements of consultants and professionals, fees and expenses of any Credit Provider, rating agency fees, fees and charges for preparation, execution, transportation and safekeeping of Bonds and any other cost, charge or fee in connection with the original issuance of Bonds.

"Co-Trustee" means U.S. Bank Trust Company, National Association, appointed by the Authority as Co-Trustee in Section 8.02 and acting as an independent trustee with the duties and powers herein provided, its successors and assigns, and any other corporation or association which may at any time be substituted in its place as provided in Section 8.03.

"Credit Agreement" means any agreement between the Authority and a Credit Provider pursuant to which such Credit Provider agrees to provide a Credit Facility or pursuant to which the Authority agrees to reimburse a Credit Provider for draws or advances under or claims made against a Credit Facility.

"Credit Agreement Payments" means Credit Agreement Reimbursement Payments and Other Credit Agreement Payments.

"Credit Agreement Reimbursement Payments" means any payment obligation of the Authority pursuant to a Credit Agreement designated as such in a Supplemental Indenture.

"Credit Facility" means any letter of credit, insurance policy, surety bond or other instrument designated by a Supplemental Indenture as providing supplemental credit support for a Series of Bonds (including by substituting for a deposit in a Bond Reserve Fund).

"Credit Provider" means any person, firm or entity designated in a Supplemental Indenture as providing a Credit Facility for a Series of Bonds, and any successor thereto.

"Current Interest Bonds" means any Bonds, other than Capital Appreciation Bonds, which pay interest at least annually to the Owners thereof commencing within 18 months from the date of issuance thereof.

"Date of Completion" means, for any particular Project, the date on which such Project is projected to be available for use by the Authority for the purposes for which it is intended to be used.

"Debt Service Fund" means the fund by that name established pursuant to Section 5.01.

"Depositary" means, with respect to any particular fund or account, the bank or trust company or other financial institution with similar powers designated by a Supplemental Indenture or a Statement of the Authority to act as the Depositary hereunder for such fund or account, its successors and assigns, and any other bank or trust company or financial institution which may at any time be substituted in its place, as provided in Section 8.03.

"Event of Default" means an event of that name described in Section 7.01.

"Federal Securities" means (1) direct obligations of the United States of America for which the full faith and credit of the United States of America are pledged for the payment of principal and interest (including obligations issued or held in book-entry form on the books of the Department of the Treasury of the United States of America); (2) obligations for which the payment of principal and interest is guaranteed directly by the full faith and credit of the United States of America of the following types issued by the following agencies: U.S. Export-Import Bank (direct obligations or fully guaranteed certificates of beneficial ownership), Farmers Home Administration (certificates of beneficial ownership), Federal Financing Bank, General Services Administration (participation certificates), U.S. Maritime Administration (guaranteed Title XI financing), U.S. Department of Housing and Urban Development (project notes, local authority bonds, new communities debentures--U.S. government guaranteed debentures, or U.S. public housing notes and bonds--U.S. government guaranteed public housing notes and bonds); (3) obligations of any state of the United States of America or of any agency, instrumentality or local governmental unit of any such state (collectively, "Municipal Obligations") (a) which are fully secured as to principal and interest and redemption premium, if any, by an escrow or trust fund consisting only of cash or obligations of the character described in clauses (1) or (2) of this definition ("Government Obligations"), which fund may be applied only to the payment of interest on such municipal obligations when due and principal of and redemption premium, if any, on such municipal obligations on the maturity date or dates thereof or the redemption date or dates specified in an irrevocable notice, as appropriate, (b) as to which the cash and the principal of and interest on the Government Obligations in such escrow or trust fund will be sufficient to pay such interest, principal and redemption premium on such date or dates, and (c) which at the time of purchase are rated in the highest rating category by each Rating Agency; (4) certificates which evidence ownership of the right to the payment of any specified portion of the principal of and interest on obligations described in clause (1) of this definition, provided that such obligations have been stripped by the Treasury of the United States of America; and (5) the interest component of Resolution Funding Corp. stripped securities, which have been stripped by request to the Federal Reserve Bank of New York, in book entry form.

"Fiduciaries" means the Trustee, the Co-Trustee, each Depositary, each Registrar and each Paying Agent.

"Financial Newspaper or Journal" means, collectively, The Wall Street Journal, The Bond Buyer or any one or more other newspapers or journals publishing financial news and selected by the Trustee, whose decision shall be final and conclusive, printed in the English language, customarily published on each business day and circulated in New York, New York, San Francisco, California, and Hågatña, Guam.

"Fiscal Year" means the period beginning on October 1 of each year and ending on the next succeeding September 30, or such other fiscal year as may be adopted by the Authority.

"Fund" means each fund established and given a designation pursuant to this Indenture or any Supplemental Indenture.

"General Manager" means the person appointed by the Board under the Act to supervise the administration of the Authority as its chief executive officer.

"Government" means the Government of Guam or any successor to the rights, powers and obligations thereof under the Act with respect to the Bonds.

"Indenture" means this Indenture, as originally executed or as it may from time to time be supplemented, modified or amended by any Supplemental Indenture.

"Independent" means, when used with respect to any given person, that such person (who may be selected and paid by the Authority or the Government) (1) is in fact independent and not under domination of the Authority or the Government; (2) does not have any substantial interest, direct or indirect, with the Authority or the Government; and (3) is not connected with the Authority or the Government as an officer or employee of the Authority or the Government, but who may be regularly retained to provide services to the Authority or the Government.

"Interest Accrual Period" means, for any particular Bond, each period between successive Interest Payment Dates for such Bond, including in each case in such period the concluding Interest Payment Date but not the beginning Interest Payment Date, and treating the day prior to the date of original issuance of such Bond as if it were an Interest Payment Date for such Bond for this purpose.

"Interest Payment Date" means, for any particular Bond, each date specified as an Interest Payment Date for such Bond by the Supplemental Indenture authorizing the issuance of such Bond and, for all Bonds, all such dates.

"Investment Securities" means any of the following which at the time are legal investments under the laws of Guam for moneys held hereunder and then proposed to be invested therein (the Trustee and the Co-Trustee shall be entitled to rely upon a Request of the Authority directing investments hereunder as a determination that such investment constitutes a legal investment):

#### (A) Federal Securities;

(B) obligations, debentures, notes or other evidence of indebtedness issued or guaranteed by any of the following: Federal Home Loan Banks, Federal National Mortgage Association, Government National Mortgage Association, Federal Housing Administration or Federal Home Loan Mortgage Corporation;

- (C) interest-bearing demand or time deposits (including certificates of deposit) which are continuously and fully insured by the Bank Insurance Fund or the Savings Association Insurance Fund;
- (D) obligations, including deposits, federal funds borrowings and banker's acceptances, of any bank, or of the subsidiary lead bank of any bank holding company, which has an unsecured, uninsured and unguaranteed obligation of equivalent maturity rated at least the second highest major rating category by each Rating Agency;
- (E) commercial paper rated at least the second highest rating category by each Rating Agency;
- (F) money market funds which are (a) restricted to Federal Securities or (b) registered under the Investment Company Act of 1940 and the shares of which are registered under the Securities Act of 1933, and have a rating by S&P of AAAm-G; AAA-m; or AA-m and Moody's of Aaa, Aa1 or Aa2;
- (G) repurchase agreements, the underlying securities of which are specifically designated and are obligations described in clause (A) or (B) of this definition, provided that, (a) the agreement is between the municipal entity and a dealer bank or securities firm; (b) such dealer bank or securities firm is either a primary dealers on the Federal Reserve reporting dealer list rated "A" or better by Standard & Poor's and Moody's, or a bank rated "A" or better by Standard & Poor's and Moody's; (c) the agreement provides that the securities be delivered to the Authority, the Trustee, the Co-Trustee or third party acting as agent for either (if the Trustee or Co-Trustee is supplying the collateral) before payment or on a delivery versus payment basis; (d) the securities must be valued weekly, marked-to-market at current market price plus accrued interest; (e) the value of collateral must be equal to 104% (or 105% if the collateral is comprised of obligations of Federal National Mortgage Association or Federal Home Loan Mortgage Corporation) of the amount of cash transferred to the dealer bank or security firm plus accrued interest; and (e) the Authority receives a legal opinion that the agreement is a legal investment under the laws of Guam;
- (H) subject to the provisions of any Supplemental Indenture, investment agreements (a) with corporations, associations or financial institutions which have general obligations, or whose holding companies have general obligations, rated at least the second highest rating category by each Rating Agency, or (b) which agreements are continuously secured by obligations described in clause (A) or (B) of this definition which have a market value (valued at least weekly) not less than 103% of the amount so invested; and
- (I) any other investment approved in writing by each Credit Provider then providing a Credit Facility for Bonds not then in default of its obligations thereunder.

None of the Trustee, the Co-Trustee nor any Depositary shall be deemed, by entering into this Indenture, to have agreed to make the valuation required by clauses (G) and (H) above, but such agreement by or on behalf of the Trustee, the Co-Trustee or a Depositary shall be a condition precedent to investment in obligations of the type described in such clauses.

"Legislature" means the Legislature of Guam or any successor to the rights, powers and obligations thereof under the Act with respect to the Bonds.

"Mandatory Sinking Account Payment" means, as of any date of calculation with respect to any Series of Bonds, the amount required by this Indenture and any Supplemental Indenture to be paid by the Authority on a given date for the retirement of Term Bonds of such Series.

"Maximum Annual Debt Service" means, for any particular Bonds as of any particular date of calculation, Annual Debt Service on such Bonds for the Bond Year including or commencing on or after such date for which such sum shall be largest.

"Navy/GPA Surcharge" means that certain surcharge established by order of the Guam Public Utilities Commission on September 13, 2001, as amended on June 23, 2003 and October 27, 2005, for the purpose of collecting revenues for the payment of amounts due to the United States Treasury, the Guam Power Authority and the Guam Public Utilities Commission and any successor surcharge to the extent provided for the same purpose or purposes.

"Net Revenues" means, for any particular period, (a) the sum of (i) all of the Revenues (other than Payment Agreement Receipts) received during such period plus (ii) the aggregate amount of all transfers from the Rate Stabilization Fund to the Revenue Fund during such period, less (b) the sum of (x) all Operation and Maintenance Expenses incurred during such period plus (y) the amount of all transfers from the Revenue Fund to the Rate Stabilization Fund during such period.

"Operation and Maintenance Expenses" means such reasonable and necessary current expenses of the Authority, paid or accrued, for operation, maintenance and repair of the System as may be determined by the Board, and the term may include at the Board's option, except as limited by contract or otherwise limited by law, without limiting the generality of the foregoing:

- (A) Legal and overhead expenses of the Authority directly related and reasonably allocable to the administration of the System;
- (B) Fidelity bond and insurance premiums appertaining to the System or a reasonably allocable share of a premium of any blanket bond or policy pertaining to the System;
- (C) Contractual services, professional services, salaries, administrative expenses, and costs of labor appertaining to System, including fees and expenses of the Trustee;
  - (D) The costs incurred in the collection of all or any part of the Revenues; and
- (E) Any costs of utility services furnished to the System by the Authority or otherwise.

However, the term "Operation and Maintenance Expenses" as used herein does not include:

- (1) Any allowance for depreciation;
- (2) Any costs of System capital renewals, replacements, major repairs, reconstruction, improvements, extensions or betterments;
- (3) Any accumulation of reserves for System capital renewals, replacements, major repairs or reconstruction;
  - (4) Any reserves for operation, maintenance or repair of the System;

- (5) Any liabilities incurred in the acquisition or improvement of any properties comprising the System or any combination thereof;
  - (6) Any other legal liability not based on contract;
- (7) Payments made by the Authority to the United States Treasury, the Guam Power Authority or the Guam Public Utilities Commission from revenues derived from the Navy/GPA Surcharge; and
- (8) Payments made by the Authority to Guam Power Authority for power delivered prior to the Fiscal Year commencing October 1, 2003.

"Operation and Maintenance Fund" means the fund by that name established pursuant to Section 5.01.

"Operation, Maintenance, Renewal and Replacement Reserve Fund" means the fund by that name established pursuant to Section 5.01.

"Opinion of Counsel" means a written opinion of counsel (who may be counsel for the Authority) retained by the Authority. If and to the extent required by the provisions of Section 1.03, each Opinion of Counsel shall include the statements provided for in Section 1.03.

"Order of the Authority", "Request of the Authority", "Requisition of the Authority", or "Statement of the Authority" mean, respectively, a written order, request, requisition or statement signed by or on behalf of the Authority by the Chairperson or the General Manager or by any person (whether or not an officer of the Authority) who is specifically authorized by resolution of the Board to sign or execute such a document on behalf of the Authority.

"Other Credit Agreement Payments" means any payment obligation of the Authority pursuant to a Credit Agreement designated as such in a Supplemental Indenture.

"Outstanding," when used as of any particular time with reference to

- (A) Bonds, means (subject to the provisions of Section 9.03) all Bonds theretofore executed, issued and delivered by the Authority under this Indenture except --
  - (1) Bonds theretofore cancelled by the Trustee or surrendered to the Trustee for cancellation:
  - (2) Bonds for the payment or redemption of which funds or securities in the necessary amount (as set forth in Section 10.01) shall have theretofore been deposited with the Trustee (whether upon or prior to the maturity or redemption date of such Bonds); <u>provided that</u>, if such Bonds are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as in Article IV provided or provision satisfactory to the Trustee shall have been made for the giving of such notice; and
  - (3) Bonds in lieu of or in substitution for which other Bonds shall have been executed, issued and delivered by the Authority pursuant to Section 2.08;
- (B) Payment Agreements, means all Payment Agreements which have not been paid or otherwise satisfied as provided in the proceedings and instruments pursuant to which such

Payment Agreements have been incurred; <u>provided</u> that Payment Agreements shall not be Outstanding if the Authority or the Qualified Counterparty with respect thereto is in default thereunder; and

(C) Credit Agreements, means all Credit Agreements which have not been paid or otherwise satisfied as provided in the proceedings and instruments pursuant to which such Credit Agreements have been incurred; provided that a Credit Agreement shall not be Outstanding during any period in which the Credit Provider with respect thereto is in default on its payment obligations thereunder.

"Parity Payment Agreement" means a Payment Agreement which is designated as such in a Supplemental Indenture, the payment of which constitutes a charge and lien on Revenues equal to and on a parity with the charge and lien upon the Revenues for the payment of the Bonds.

"Parity Payment Agreement Payments" means Payment Agreement Payments under a Parity Payment Agreement.

"Paying Agent" means any paying agent appointed pursuant to a Supplemental Indenture, and its successors and assigns as provided in Section 8.03.

"Payment Agreement" means any contract entered into by the Authority with a Qualified Counterparty in connection with, or incidental to, the issuance of Bonds, or the carrying of any investment or program of investment or entering into or maintaining any agreement which secures Bonds, which the Authority determines to be necessary or appropriate to place the obligation or investment of the Authority, as represented by such Bonds, investment, program of investment or agreement and the contract or contracts, in whole or in part, on the interest rate, currency, cash-flow, or other basis desired by the Authority, including, without limitation, contracts commonly known as interest rate swap agreements or contracts providing for payments based on levels of, or changes in, interest rates, or contracts to exchange cash flows or a series of payments, or contracts, including, without limitation, interest rate floors or caps, options, put or call to hedge payment, rate, spread, or similar exposure and which is designated as such and as Related to particular Bonds in a Supplemental Indenture.

"Payment Agreement Payment Accrual Period" means, for any Payment Agreement, each period between successive Payment Agreement Payment Dates for such Payment Agreement, including in each case in such period the concluding Payment Agreement Payment Date but not the beginning Payment Agreement Payment Date, and treating the day prior to the effective date of such Payment Agreement as if it were a Payment Agreement Payment Date for such Payment Agreement for this purpose.

"Payment Agreement Payment Date" means, for any particular Payment Agreement, each date specified as a payment date in such Payment Agreement.

"Payment Agreement Payments" means amounts required to be paid periodically by the Authority to any Qualified Counterparty pursuant to a Payment Agreement, but not including (i) Termination Payments or (ii) such other payments as may be specified in a Supplemental Indenture.

"Payment Agreement Receipts" means amounts required to be paid periodically by a Qualified Counterparty to the Authority pursuant to a Payment Agreement, but not including Termination Payments.

"Principal" means, as of any date of calculation, (a) with respect to any Current Interest Bond, the principal amount thereof, and (b) with respect to any Capital Appreciation Bond, the Accreted Value thereof as of the date on which interest on such Capital Appreciation Bond is compounded next preceding such date of calculation (unless such date of calculation is a date on which such interest is compounded, in which case, as of such date).

"Principal Office" means, with respect to the Trustee, the Co-Trustee and any other Fiduciary, the office at the respective address set forth in Section 12.07 hereof or at such other address as the respective party may have designated for such purpose. The Principal Office of any Credit Provider shall be as specified by such Credit Provider pursuant to its Credit Facility or Credit Agreement.

"Principal Payment Period" means, for any particular Bond, each period so designated by the Supplemental Indenture authorizing the issuance of such Bond.

"Project" means any particular additions, enlargements, betterments, extensions and other improvements to or related to, and the equipping of, the System, including, without limitation, the acquisition of land and furnishings therefor or the payment of any claims or judgments relating thereto, as specified and described by the Supplemental Indenture authorizing issuance of the first Series of Bonds for such Project, and as such specification and description may be modified in accordance with Section 3.03.

"Project Costs" means, with respect to any given Project, all costs which are chargeable to the capital account of such Project, including, but not limited to, the following:

- (A) costs of the Authority and all contractors for land (including franchises, licenses or other interests in land), labor, materials, machinery, equipment and furnishings in connection with the acquisition, construction, reconstruction, installation and equipping of the Project or otherwise attributable to the Project;
- (B) the cost of relocation and installation of utilities, environmental cleanup and noise abatement;
- (C) the cost of contract bonds and insurance of all kinds that may be required or necessary during the construction of the Project;
- (D) all costs of architectural and engineering services, including the costs of test borings, surveys, estimates, plans and specifications and preliminary investigation therefor, and for inspecting and supervising construction, as well as for the performance of all other duties required by or consequent upon the proper construction of the Project;
  - (E) relocation costs and any claims, awards or judgments relating to the Project;
  - (F) Capitalized Interest; and
- (G) all amounts required to reimburse the Authority for advances made by it for any of the above items or for any other costs incurred and for work done, whether before or after the date of this Indenture, which are properly chargeable to the Project.

"Qualified Counterparty" means the party, other than the Authority, to a Payment Agreement; <u>provided</u> that any such party must satisfy the following requirements: (1) either (a) the obligations of such party under the Payment Agreement (or obligations of such type) must be rated in one

of the three (3) highest rating categories of each of the Rating Agencies then rating the Bonds (without regard to any gradations within a rating category), or (b) the obligations of such party under the Payment Agreement are guaranteed by a bond insurer or other institution, in each case the obligations of such type of which must be rated in one of the three (3) highest rating categories of each of the Rating Agencies then rating the Bonds (without regard to any gradations within a rating category); and (2) such party must be otherwise qualified to act as the other party to a Payment Agreement with the Authority under any applicable laws.

"Rate Stabilization Fund" means the fund by that name established pursuant to Section 5.01.

"Rating Agency" means, as of any given date, each nationally recognized securities rating agency designated by this Indenture or any Supplemental Indenture as a Rating Agency hereunder and then rating any Series of Bonds.

"Rebate Fund" means the fund by that name established pursuant to Section 5.01.

"Record Date" means, for any particular payment of principal of or interest or premium on particular Bonds, each date specified as a Record Date for such Bonds by the Supplemental Indenture authorizing the issuance of such Bonds.

"Redemption Price" means, with respect to any Bond (or portion thereof if less than all of a Bond is to be redeemed) the principal amount of such Bond (or portion) plus the applicable premium, if any, payable upon redemption thereof pursuant to the provisions of such Bond and this Indenture.

"Registrar" means any registrar appointed pursuant to a Supplemental Indenture, and its successors and assigns as provided in Section 8.02.

"Related" means, with respect to any particular Payment Agreement, having been designated as such with respect to any particular Bonds pursuant to a Supplemental Indenture.

"Renewal and Replacement Costs" means the costs of System capital renewals, replacements, major repairs or reconstruction.

"Revenue Fund" means the Guam Waterworks Authority Revenue Fund established pursuant to the Act.

"Revenues" means all gross income and other amounts received or receivable by the Authority as revenues of any kind from the ownership or operation of any part of the System, including all rates, fees and charges (including ground water, surface water and treated water charges and all sewer and wastewater service charges), received by the Authority for providing water and sewer services (but excluding development charges and assessments and hook-up fees and other special charges such as penalties and fines), all Payment Agreement Receipts, and all proceeds of insurance or grants covering business interruption loss (and related losses and expenses) relating to the System, and all other income and revenue howsoever derived by the Authority from the ownership or operation of, or arising from, the System, together with all interest, profits or other income derived from the investment of amounts in the Revenue Fund, but not including:

(A) amounts received as insurance proceeds (except as hereinabove provided) or from the sale, transfer or other disposition of, or upon the taking by or under the threat of eminent

domain of, all or any part of the System (which moneys shall be received and disposed of pursuant to Sections 6.03, 6.06 and 6.11, as the case may be),

- (B) proceeds from any securities issued by the Authority or proceeds from loans obtained by the Authority,
- (C) the proceeds of any court or arbitration award or settlement in lieu thereof received by the Authority,
- (D) amounts received by the Authority as gifts or as grants (except as hereinabove provided), whether restricted or unrestricted,
  - (E) amounts received by the Authority as revenues from the Navy/GPA Surcharge;
- (F) other amounts (except as hereinabove provided), the use of which is restricted by the donor or grantor.

"Serial Bonds" means Bonds designated as Serial Bonds in the Supplemental Indenture providing for the issuance of such Series and for which no Mandatory Sinking Account Payments are provided.

"Series" or "Series of Bonds" means and refers to all Bonds of like designation and described as such in a Supplemental Indenture authenticated and delivered on original issuance at the same time pursuant to this Indenture, and any Bonds thereafter delivered in lieu of or substitution for any of such Bonds pursuant to this Indenture.

"Series 2005 Certificates" means the Certificates of Participation, Series 2005, evidencing an assignment of a proportionate interest in rights to receive certain Net Pledged Revenues pursuant to the Purchase Agreement between Guam Waterworks Facilities Corporation and the Authority.

"Sinking Accounts" means any special account or accounts established by any Supplemental Indenture or Indentures in the Debt Service Fund for the payment of Term Bonds.

"Subordinate Securities" means any obligations of the Authority payable from the Subordinate Securities Fund and having a lien, if any, on Revenues subordinate to the pledge and lien of this Indenture securing the payment of the Bonds.

"Subordinate Securities Fund" means the fund by that name established pursuant to Section 5.01 for the purposes provided in Section 5.07.

"Supplemental Indenture" means any indenture hereafter duly authorized under and in compliance with the Act, entered into by and between the Authority, the Trustee and the Co-Trustee and accepted by each Depositary, Paying Agent and Registrar the duties of which are affected thereby, supplementing, modifying or amending this Indenture; but only if and to the extent that such Supplemental Indenture is specifically authorized hereunder.

"System" means the water and sewer systems, now or hereafter existing, owned and/or operated by the Authority or its contractors, agents or subcontractors.

"Tax Certificate" means a Certificate of the Authority concerning the calculation of any amount to be paid to the United States of America pursuant to Section 148(f) of the Code and any other matters relating to the exclusion of interest on Bonds from gross income for federal income tax purposes.

"Term Bonds" means Bonds designated as Term Bonds in the Supplemental Indenture providing for the issuance of such Series and which are payable at or before their specified maturity date or dates from Mandatory Sinking Account Payments established for that purpose and calculated to retire such Bonds on or before their specified maturity date or dates.

"Termination Payments" means amounts required to be paid by the Authority or a Qualified Counterparty pursuant to a Payment Agreement in connection with a termination of all or any portion thereof.

"Transition Date" means the date designated in a Certificate of the Authority delivered to the Trustee and the Co-Trustee to the effect that all of the terms of this Indenture, on and after such date, constitute the amendment and restatement of the 2005 Indenture in accordance with Section 11.16 hereof and the 2005 Indenture, including without limitation Section 9.01 thereof, which Certificate of the Authority shall be accompanied by a written opinion of Bond Counsel to the effect that the Indenture constitutes a valid and binding amendment of the 2005 Indenture in accordance with Section 11.16 hereof and Section 9.01 of the 2005 Indenture.

"Trustee" means Bank of Guam, appointed by the Authority as Trustee in Section 8.01 and acting as an independent trustee with the duties and powers herein provided, its successors and assigns, and any other corporation or association which may at any time be substituted in its place as provided in Section 8.03.

"Variable Rate Bonds" means Bonds which bear interest at a variable rate of interest.

SECTION 1.02 <u>Equal Security</u>. In consideration of the acceptance of the Bonds by those who shall hold the same from time to time, this Indenture shall be deemed to be and shall constitute a contract between the Authority and the Owners from time to time of the Bonds; and the covenants and agreements herein set forth to be performed on behalf of the Authority shall be for the equal and proportionate benefit, security and protection of all Owners of the Bonds without preference, priority or distinction as to security or otherwise of any of the Bonds over any of the others by reason of the Series, number or date thereof or the time of issue, sale, execution or delivery thereof, or otherwise for any cause whatsoever, except as expressly provided therein or herein.

SECTION 1.03 Content of Certificates and Opinions. Every certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture, including each Certificate of the Authority, shall include (A) a statement that the person or persons making or giving such certificate or opinion have read such covenant or condition and the definitions herein relating thereto; (B) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based; (C) a statement that, in the opinion of the signers, they have made or caused to be made such examination or investigation as is necessary to enable them to express an informed opinion as to whether or not such covenant or condition has been complied with; and (D) a statement as to whether, in the opinion of the signers, such condition or covenant has been complied with.

Any such certificate or opinion made or given by an officer of the Authority may be based, insofar as it relates to legal, accounting or System matters, upon a certificate or opinion of or representations by counsel, accountants or consultants, respectively, unless such officer knows, or in the

exercise of reasonable care should have known, that the certificate or opinion or representations with respect to the matters upon which his certificate or opinion may be based, as aforesaid, are erroneous. Any such certificate or opinion made or given by counsel, accountants or consultants may be based, insofar as it relates to factual matters, information with respect to which is in the possession of the Authority, upon the certificate or opinion of or representations by an officer or officers of the Authority, unless such counsel, accountant or consultant knows, or in the exercise of reasonable care should have known, that the certificate or opinion or representations with respect to the matters upon which his opinion may be based as aforesaid are erroneous.

#### ARTICLE II

#### THE BONDS

SECTION 2.01 <u>Authorization of Bonds</u>. Bonds may be issued hereunder from time to time in order to obtain funds for the purposes authorized herein. The Bonds shall be issued under the Act for the purpose of financing or refinancing the acquisition, construction, reconstruction, improvement, betterment, extension, financing and refinancing of the System. The aggregate principal amount of Bonds which may be issued hereunder is not limited (subject, however, to the right of the Authority, which is hereby reserved, to limit or restrict the aggregate principal amount of Bonds which may at any time be issued and Outstanding hereunder) and consists or may consist of one or more Series of varying denominations, dates, maturities, interest rates and other provisions, all issued and to be issued pursuant to this Indenture and the Act, subject to the limitations contained in Sections 3.04 and 3.05. The Bonds are designated as the "Guam Waterworks Authority Water and Wastewater System Revenue Bonds." The Bonds may be issued in such Series as from time to time shall be established and authorized by the Authority by Supplemental Indenture, subject to the provisions and conditions herein contained.

SECTION 2.02 Execution of Bonds. The Bonds shall be executed on behalf of the Authority by the manual or facsimile signature of the Chairperson and countersigned by the manual or facsimile signature of the Chief Financial Officer of the Authority. The Bonds shall then be delivered to the applicable Registrar for authentication by it. In case any of the officers who shall have signed or countersigned any of the Bonds shall cease to be such officer or officers before the Bonds so signed or countersigned shall have been authenticated or delivered by the Registrar or issued by the Authority, such Bonds may nevertheless be authenticated, delivered and issued and, upon such authentication, delivery and issue, shall be as binding upon the Authority as though those who signed and countersigned the same had continued to be such officers of the Authority, and also any Bond may be signed and countersigned on behalf of the Authority by such persons as on the actual date of the execution of such Bond shall be the proper officers of the Authority although at the nominal date of such Bond any such person shall not have been such officer of the Authority.

Except as may be provided in any Supplemental Indenture, only such of the Bonds as shall bear thereon a certificate of authentication in the form hereinbefore recited, manually executed by the applicable Registrar, shall be valid or obligatory for any purpose or entitled to the benefits of this Indenture, and such certificate of the Registrar shall be conclusive evidence that the Bonds so authenticated have been duly authenticated and delivered hereunder and are entitled to the benefits of this Indenture.

SECTION 2.03 <u>Transfer of Bonds</u>. Any Bond may, in accordance with its terms, be transferred, upon the books required to be kept pursuant to the provisions of Section 2.05, by the person in whose name it is registered, in person or by its duly authorized attorney, upon surrender of such Bond for cancellation, accompanied by delivery of a duly executed written instrument of transfer in a form approved by the applicable Registrar.

Whenever any Bond or Bonds shall be surrendered for transfer, the Authority shall execute and the applicable Registrar shall authenticate and deliver a new Bond or Bonds of the same Series and maturity, for a like aggregate principal amount of authorized denominations. The Registrar shall require the payment by any Bondowner requesting any such transfer of any tax or other governmental charge required to be paid with respect to such transfer.

No transfer or exchange of any Bond of any Series shall be required during the period established by the applicable Registrar for the selection of Bonds of such Series for redemption or at any time after selection of such Bond for redemption.

SECTION 2.04 <u>Exchange of Bonds</u>. Bonds may be exchanged at the Principal Office of the applicable Registrar, for a like aggregate principal amount of Bonds of other authorized denominations of the same Series and maturity. The Registrar shall require the payment by the Bondowner requesting such exchange of any tax or other governmental charge required to be paid with respect to such exchange.

SECTION 2.05 <u>Bond Register; Right of Inspection</u>. Each Registrar will keep or cause to be kept, at the Principal Office of the Registrar, sufficient books for the registration and transfer of the Bonds of the applicable Series, which shall at all times be open to inspection during regular business hours by the Authority, the Co-Trustee or the Trustee; and, upon presentation for such purpose, the Registrar shall, under such reasonable regulations as the Registrar may prescribe, register or transfer or cause to be registered or transferred, on said books, Bonds as hereinbefore provided.

SECTION 2.06 Temporary Bonds. The Bonds may be initially issued in temporary form exchangeable for definitive Bonds when ready for delivery. The temporary Bonds may be printed, lithographed or typewritten, shall be of such denominations as may be determined by the Authority, shall be in registered form without coupons and may contain such reference to any of the provisions of this Indenture as may be appropriate. Every temporary Bond shall be executed by the Authority and be authenticated by the applicable Registrar upon the same conditions and in substantially the same manner as the definitive fully registered Bonds. If the Authority issues temporary Bonds, it may execute and furnish definitive Bonds without delay, and thereupon the temporary Bonds may be surrendered, for cancellation, in exchange therefor at the Principal Office of the applicable Registrar, and the Registrar shall deliver in exchange for such temporary Bonds an equal aggregate principal amount of definitive Bonds of the same Series and maturity or maturities in authorized denominations. Until so exchanged, the temporary Bonds shall be entitled to the same benefits under this Indenture as definitive Bonds executed and delivered hereunder.

SECTION 2.07 Bonds Mutilated, Lost, Destroyed or Stolen. If any Bond shall become mutilated, the Authority, at the expense of the Owner of said Bond, shall execute, and the applicable Registrar shall thereupon authenticate and deliver a new Bond of like tenor in exchange and substitution for the Bond so mutilated (except that such number may be preceded by a distinguishing prefix), but only upon surrender to the Registrar of the Bond so mutilated. Every mutilated Bond so surrendered to the Registrar shall be cancelled by it and delivered to, or upon the order of, the Authority. If any Bond shall be lost, destroyed or stolen, evidence of such loss, destruction or theft may be submitted to the Authority and the Registrar and, if such evidence be satisfactory to both and indemnity satisfactory to them shall be given, the Authority, at the expense of the Owner, shall execute, and the Registrar shall thereupon authenticate and deliver a new Bond in lieu of and in substitution for the Bond so lost, destroyed or stolen (except that such number may be preceded by a distinguishing prefix). The Authority may require payment of a sum not exceeding the actual cost of preparing each new Bond issued under this Section and of the expenses which may be incurred by the Authority and the Registrar in the premises. Any Bond issued under the provisions of this Section in exchange for any Bond mutilated or in lieu of

any Bond alleged to be lost, destroyed or stolen shall constitute an original additional contractual obligation on the part of the Authority, whether or not the Bond so mutilated or so alleged to be lost, destroyed or stolen be at any time enforceable by anyone, and shall be equally and proportionately entitled to the benefits of this Indenture with all other Bonds secured by this Indenture. Neither the Authority, the Trustee nor the Co-Trustee shall be required to treat both the original Bond and any replacement Bond as being Outstanding for the purpose of determining the Accreted Value of Bonds which may be issued hereunder or for the purpose of determining any percentage of Bonds Outstanding hereunder, but both the original and duplicate Bond shall be treated as one and the same.

SECTION 2.08 Book-Entry Registration of Exchanges. (A) Notwithstanding any of the provisions of Sections 2.02 through 2.07 to the contrary, the Supplemental Indenture providing for the issuance of a Series of Bonds may provide: (1) that one or more Bonds of such Series shall be delivered upon initial issuance to, and registered in the name of, or in the name of one or more nominees of, one or more bond depositories, (2) that such Bonds may not be exchanged, transferred or replaced on the registration books maintained pursuant to Section 2.05, subject to such exceptions as may be provided by such Supplemental Indenture, (3) that, while any such Bond is held by such a bond depository, the Authority, the Trustee, the Co-Trustee, any Paying Agent and any Registrar for such Bond may treat the bond depository as the absolute owner of such Bond for all purposes and shall have no liability with respect to (a) the accuracy of the records of such bond depository or any participant with respect to any ownership interest in such Bond, (b) the delivery to any participant, any beneficial owner or any other person, other than such bond depository, of any notice with respect to such Bond, including any notice of redemption, or (c) the payment to any participant, any beneficial owner or any other person, other than such bond depository, of any amount with respect to the principal or Redemption Price of or interest on such Bond.

(B) In the alternative, notwithstanding any of the provisions of Sections 2.02 through 2.07 to the contrary, the Supplemental Indenture providing for the issuance of a Series of Bonds may provide: (1) that one or more Bonds shall be delivered upon initial issuance to, and registered in the name of, or in the name of one or more nominees of, the Trustee, the Co-Trustee or any other Registrar for such Series of Bonds, in order to set forth the terms of such Bonds in the same manner as for Bonds that are subject to exchange, transfer and replacement in written certificated form, (2) that no person other than the Trustee, the Co-Trustee or such other Registrar may receive an authenticated Bond, subject to such exceptions as may be provided by such Supplemental Indenture, (3) that the ownership of such Bonds shall be evidenced solely by the bond registration books of the Trustee, the Co-Trustee or such other Registrar, and (4) that the transfer of the ownership of such Bonds shall take place subject to such regulations as may be provided by such Supplemental Indenture.

#### ARTICLE III

# ISSUANCE OF BONDS; ISSUANCE OF A SERIES OF BONDS; PARITY PAYMENT AGREEMENTS

SECTION 3.01 <u>Issuance of Bonds</u>. At any time after the execution of this Indenture and one or more appropriate Supplemental Indentures, the Authority may sell and execute one or more Series of Bonds and the Registrar for each such Series of Bonds shall authenticate and, upon the Order of the Authority, deliver such Series of Bonds.

SECTION 3.02 <u>Application of Proceeds of Bonds</u>. The proceeds received by the Authority from the sale of each Series of Bonds shall be deposited with the Trustee or the Co-Trustee, who shall forthwith set aside such proceeds in such respective funds and accounts as are directed by a Request of the Authority, subject to the requirements of this Indenture.

SECTION 3.03 Establishment and Application of Construction Accounts; Modification of Projects. (A) With respect to each Project or Series, as determined by the Authority, the Depositary for the Construction Account for such Project or Series shall establish within the Construction Fund and maintain and hold in trust hereunder a separate account designated as the "\_\_\_\_\_Construction Account" (inserting therein the Project or Series designation). Amounts in each Construction Account shall be used and withdrawn, as provided in this Section, solely for the payment of Project Costs of such Project (or of the Project or Projects for which such Series is being issued), including by (1) direct payment, (2) payment of any debt obligations issued by the Authority, or repayment of any advances made from any source, to finance temporarily such Project Costs, (3) payment of Capitalized Interest accruing on Bonds issued for such Project as specified in the Supplemental Indenture relating thereto, and (4) payment of Costs of Issuance of such Bonds. A Depositary shall disburse moneys in a Construction Account only upon Requisition of the Authority stating the person to whom payment is to be made, the amount to be paid, the purpose for which the obligation was incurred and that such payment is a proper and lawful charge against such account.

The Authority may modify the specifications or description of any Project or Projects by filing with the Trustee and each Depositary for each Construction Account for such Project or Projects a Certificate of the Authority describing such modification, together with a written report of a Consulting Engineer to the effect that such modification will have no material adverse effect on the Authority's ability to comply with Section 6.12 and an opinion of Bond Counsel to the effect that such modification and the use of amounts in such Construction Accounts for such modified Project or Projects will not adversely effect the exclusion, if any, of interest on any Bonds from gross income for federal income tax purposes.

Upon receipt of a Certificate of the Authority that amounts in any Construction Account are no longer required for the purpose of such account, said amounts shall be transferred to the Capital Improvement Fund or any other fund or account designated by the Authority in such Certificate; <a href="provided">provided</a>, <a href="however">however</a>, that any such transfer shall be subject to receipt by the Trustee of an opinion of Bond Counsel to the effect that such transfer and the use of such amounts for the purposes intended by the Authority after such transfer will not adversely affect the exclusion, if any, of interest on any Bonds from gross income for federal income tax purposes.

- (B) All interest and other profits derived from the investment of moneys in each Construction Account shall be retained therein.
- (C) The Authority may provide in the Supplemental Indenture providing for the issuance of Additional Bonds that the proceeds of such Additional Bonds shall otherwise be limited as to use or application.

SECTION 3.04 <u>Issuance of Additional Series of Bonds; Additional Parity Payment Agreements; Other Payment Agreements.</u> (A) In addition to the initial Series of Bonds, the Authority may by Supplemental Indenture establish one or more other Series of Bonds payable from Revenues on a parity with the initial Series of Bonds and Parity Payment Agreements and secured by a lien upon and pledge of Revenues equal to the lien and pledge securing the initial Series of Bonds and Parity Payment Agreements, and the Authority may issue Bonds of any Series so established, in such principal amount and for such lawful purpose or purposes (including refunding of any Bonds issued hereunder and then Outstanding) as shall be specified by the Authority in said Supplemental Indenture, but only upon compliance by the Authority with the provisions of Section 3.05 and any applicable provisions of any Supplemental Indenture, and subject to the following specific conditions, which are hereby made conditions precedent to the issuance of any such additional Series of Bonds:

- (1) No Event of Default shall have occurred and then be continuing.
- (2) The Supplemental Indenture providing for the issuance of such additional Series of Bonds shall specify the purposes for which such Series is being issued, which shall be one or more of the following (1) to provide moneys for deposit into a Construction Account and withdrawal therefrom in accordance with law for purposes other than the refunding of Bonds, or to otherwise finance Project-related costs or working capital, or (2) to refund all or part of the Bonds of any one or more Series then Outstanding, by depositing with the Trustee, in trust, moneys or noncallable Federal Securities in the necessary amount to discharge all liability of the Authority with respect to the Bonds to be refunded as provided in Section 10.02 and to make any payment necessary or desirable in connection with the termination of any Related Payment Agreement in connection with such refunding.
- (3) The Supplemental Indenture providing for the issuance of such additional Series of Bonds may specify whether such Series will be secured by the Bond Reserve Fund a separate Series reserve fund or any other such similar reserve fund.
- (4) The aggregate principal amount of Bonds issued hereunder shall not exceed any limitation imposed by law or by any Supplemental Indenture.
- (5) The representations and estimates set forth in the certificates and written reports required by Section 3.05 for such Series shall have been made by the parties required to give such certificates and written reports.
- (B) The Authority may enter into Parity Payment Agreements payable from Revenues on a parity with the Bonds and other Parity Payment Agreements and secured by a lien upon and pledge of Revenues equal to the lien and pledge securing the Bonds and other Parity Payment Agreements, but only upon compliance by the Authority with the provisions of Section 3.05 and any applicable provisions of any Supplemental Indenture, and subject to the following specific conditions, which are hereby made conditions precedent to the entering into by the Authority of any Parity Payment Agreement:
  - (1) No Event of Default shall have occurred and then be continuing.
- (2) The representations and estimates set forth in the certificates and written reports required by Section 3.05 shall have been made by the parties required to give such certificates and written reports.
- (3) The Authority, the Trustee and the Co-Trustee shall have executed and delivered a Supplemental Indenture designating such agreement as a Parity Payment Agreement and the Bonds to which such Parity Payment Agreement is Related.
- (C) In addition to Parity Payment Agreements, the Authority may enter into Payment Agreements payable from Revenues after and subordinate to the payment from Revenues of payments with respect to the Bonds and Parity Payment Agreements, but only upon compliance by the Authority with any applicable provisions of any Supplemental Indenture and any such agreement shall constitute a Payment Agreement upon execution and delivery by the Authority, the Trustee and the Co-Trustee of a Supplemental Indenture designating such agreement as a Payment Agreement and the Bonds to which such Payment Agreement is Related.

SECTION 3.05 <u>Proceedings for the Issuance of a Series of Bonds; Parity Payment Agreements</u>. The requirements of this Section 3.05 are in addition to the other applicable conditions precedent set forth in Section 3.04.

- (A) Whenever the Authority shall determine to issue a Series of Bonds, the Authority shall execute and deliver a Supplemental Indenture providing for the issuance of such Series of Bonds and specifying the terms and conditions of such Series of Bonds, including the following:
  - (1) the authorized principal amount of such Series;
- (2) the purpose or purposes for which such Series is being issued and, if such purpose is the deposit of moneys in a Construction Account, the Project or Projects for which such Series is being issued (including any appropriate modifications to any previously specified or described Project or Projects);
- if applicable, the amount of the Bond Reserve Fund Requirement upon the issuance of such Series;
- (4) if applicable, the amount to be deposited (or otherwise available) in the Bond Reserve Fund upon the issuance of such Series, the source or sources of such amount (which may be proceeds of such Series, a Credit Facility or other amounts available for such purpose);
- (5) the amount, if any, to be deposited in the applicable Construction Account, if any, upon the issuance of such Series, and the source or sources of such deposit (which may be the proceeds of such Series or other amounts available for such purpose);
- (6) the amounts, if any, to be reserved within the applicable Construction Account to pay Costs of Issuance and Capitalized Interest of such Series and the source or sources of such amounts (which may be the proceeds of such Series or other amounts available for such purpose);
- (7) the amount, if any, to be deposited in the Debt Service Fund as accrued interest upon the issuance of such Series;
- (8) the Credit Facility and Credit Provider, if any, for such Series and any special provisions not inconsistent with the terms of this Indenture relating to such Credit Facility and designating any Credit Agreement Payments with respect thereto;
- (9) the Related Payment Agreement, if any, and Qualified Counterparty with respect thereto and any provisions not inconsistent with the terms of this Indenture relating to such Payment Agreement;
- (10) if applicable, the appointment of the Registrar and any Paying Agents for such Series and, if necessary, any Depositary for any Funds or Accounts relating to such Series;
- (11) if applicable, the form, title and designation of, and the manner of numbering and lettering, Bonds of such Series;
  - (12) the denomination or denominations of Bonds of such Series;
- (13) the date or dates of maturity and Principal Payment Periods of Bonds of such Series and the manner of payment of principal of such Bonds;

- (14) the rate or rates of interest or the manner of determining such rate or rates borne by the Bonds of such Series and the Record Dates and Interest Payment Dates for such Bonds;
- (15) the Bonds of such Series which are Serial Bonds (if any) and the Bonds of such Series which are Term Bonds (if any);
  - (16) the terms of redemption, if any, of Bonds of such Series;
- (17) the date and amount of each Mandatory Sinking Account Payment (if any) required to be paid by the Authority for the retirement of Term Bonds of such Series;
- (18) the designation of any accounts to be established pursuant to this Indenture and any other accounts deemed advisable by the Authority;
- (19) any tax or other covenants which, in the judgment of the Authority, are designed to insure that interest on such Series of Bonds will be excludable from gross income for federal income tax purposes and which are not inconsistent with the provisions of this Indenture; provided, however, that the Authority may, in its sole and absolute discretion, determine in connection with the authorization of a Series of Bonds that it will not make any such covenants because interest on such Series is not intended to be excludable from gross income for federal income tax purposes; and
- (20) any other provisions deemed advisable by the Authority, not in conflict with or in substitution for the provisions of this Indenture (except as expressly permitted in this Indenture).
- (B) (1) Before any Series of Bonds other than the initial Series shall be issued and delivered and before any Parity Payment Agreements are entered into, the Authority shall file the following documents with the Trustee:
- (a) If and to the extent that an additional Series of Bonds is being issued, an Opinion of Counsel setting forth (i) that such counsel has examined the Supplemental Indenture; (ii) that the execution and delivery of the additional Series of Bonds have been duly authorized by the Authority; and (iii) that said additional Series of Bonds, when duly executed by the Authority and, if required, authenticated and delivered by the Registrar for such Bonds, will be valid and binding special obligations of the Authority, payable from Revenues as provided herein.
- (b) A Certificate of the Authority that the requirement of Section 3.04(A)(1) has been met.
- (c) (i) If and to the extent that an additional Series of Bonds is being issued for the purpose of providing moneys for deposit in a Construction Account, the following certificates: [to be reviewed/revised]
- (A) A certificate of a Consulting Engineer setting forth (I) the projected Date of Completion for the Project or Projects for which such Series of Bonds is being issued and for any other uncompleted Projects, and (II) an estimate of the cost of construction of such Projects;
- (B) A written report of a Consulting Engineer setting forth for each Fiscal Year from the then current Fiscal Year through the later of (I) the first Fiscal Year commencing at least five years after the date of original issuance of such additional Series, or

- (II) the first Fiscal Year commencing at least three years after the Date of Completion projected by the Consulting Engineer pursuant to subparagraph (A) above, estimates of Revenues, Operation and Maintenance Expenses and Net Revenues; and
- (C) A Certificate of the Authority (I) setting forth (a) the estimates of Revenues, Operation and Maintenance Expenses and Net Revenues, as set forth in the written report of a Consulting Engineer pursuant to subparagraph (B) above, for each of the Fiscal Years covered by such report, and (b) the Aggregate Annual Debt Service and Capitalized Interest for each of such Fiscal Years, including Annual Debt Service and Capitalized Interest on all future Series of Bonds, if any, which such Certificate of the Authority shall estimate (based on the estimate of the Consulting Engineer of the cost of construction of such Projects) are required to complete payment of the cost of construction of such Projects, and (II) demonstrating that for each of such Fiscal Years (a) Revenues are projected to be at least equal to the aggregate amount of all transfers required to be made pursuant to Section 5.02(A) through (E) and, to the extent applicable, otherwise required to provide for the payment of all obligations of the Authority to be paid from Revenues, and (b) Net Revenues are projected to be at least equal to 1.25 times Aggregate Annual Debt Service.
- (ii) In lieu of the certificates and reports required by subparagraphs (i)(A), (B) and (C) above, the Authority may deliver to the Trustee a Certificate of the Authority to the effect that for the last complete Fiscal Year or any period of 12 consecutive calendar months out of the 18 calendar months next preceding the original issuance of such Series of Bonds, Net Revenues for such Fiscal Year or 12-month period equaled at least 1.25 times the Maximum Annual Debt Service on all Bonds then Outstanding plus the Series of Bonds being issued.
- (iii) In addition, a Series of Bonds may be issued for the sole purpose of depositing in a Construction Account the amounts necessary to complete any one or more Projects without filing with the Trustee of the certificates and reports required by subparagraphs (i)(B) and (C), if such certificates and reports demonstrating compliance with such subparagraphs were filed in connection with the issuance of the prior Series of Bonds for each of such Projects and if the principal amount of such Bonds to be issued for completion purposes does not exceed ten percent (10%) of the principal amount of Bonds previously issued for and allocable to such Projects.
- (d) If and to the extent that an additional Series of Bonds is being issued for the purpose of refunding Bonds, either (i) a certificate of an Independent Certified Public Accountant that Aggregate Annual Debt Service for each Fiscal Year thereafter will be less than or equal to Aggregate Annual Debt Service for each such Fiscal Year in the absence of such refunding, or (ii) the certificates and reports required by subsection (B)(1)(c)(i)(A) (if any one or more of the Projects for which the Bonds being refunded is not then completed), (B) and (C) of this Section; provided that in lieu of the certificates and reports required by subparagraphs (A), (B) and (C) of said subsection (B)(1)(c)(i), the Authority may deliver to the Trustee the certificate required by subsection (B)(1)(c)(ii).
- (e) If and to the extent that a Parity Payment Agreement, other than a Parity Payment Agreement all payments pursuant to which have been taken into account for purposes of determining that the requirements of this subsection (B) have been satisfied with respect to the issuance of the Related Bonds, is being entered into, either (i) a certificate of an Independent Certified Public Accountant that Aggregate Annual Debt Service for each Fiscal Year thereafter will be less than or equal to Aggregate Annual Debt Service for each such Fiscal Year in the absence of such Parity Payment Agreement, or (ii) the certificates and reports required by subsection (B)(1)(c)(i)(B) and (C) of this Section, in each case treating such Payment Agreement as in effect for purposes of any calculations; provided that in lieu of the certificates and reports required by subparagraphs (B) and (C) of said

subsection (B)(1)(c)(i), the Authority may deliver to the Trustee the certificate required by subsection (B)(1)(c)(ii), treating such Payment Agreement as in effect for purposes of any calculations.

(2) In connection with the issuance of an additional Series of Bonds, upon the delivery to the Trustee of the foregoing instruments, the applicable Registrar shall authenticate and deliver said additional Series of Bonds, in the aggregate principal amount specified in such Supplemental Indenture, to, or upon the Order of, the Authority, when such additional Series of Bonds shall have been presented to it for that purpose.

SECTION 3.06 <u>Validity of Bonds</u>. The validity of the authorization and issuance of the Bonds shall not be dependent on or affected in any way by any proceedings taken by the Authority for the improvement of the System, or by any contracts made by the Authority in connection therewith, or the failure to construct the System or any part thereof. The recital contained in the Bonds that the same are regularly issued pursuant to the Act shall be conclusive evidence of their validity and of compliance with the provisions of law in their issuance.

#### ARTICLE IV

#### REDEMPTION OF BONDS

SECTION 4.01 Terms of Redemption. Any Series of Bonds may be made subject to redemption prior to maturity, as a whole or in part, at such time or times, and upon payment of the principal amount thereof plus such premium or premiums, if any, as may be determined by the Authority at the time such Series is authorized and as shall be set forth in the Supplemental Indenture authorizing such Series; provided, however, that such Supplemental Indenture shall provide that the Authority shall have the right, on any date, to redeem the Bonds of any such Series, as a whole, or in part so that the reduction in Annual Debt Service for the Bonds of such Series for each Bond Year after such redemption shall be as nearly proportional as practicable, from and to the extent of proceeds received by the Authority due to a governmental taking of the System or portions thereof by eminent domain proceedings, if such amounts are not used for additions, improvements or extensions to the System, under the circumstances and upon the conditions and terms set forth in Section 6.11, at the principal amount thereof plus interest accrued thereon, without premium.

Selection of Bonds for Redemption. For purposes of selecting Bonds for redemption, Bonds shall be deemed to be composed of portions equal to their respective minimum authorized denomination, and any such portion may be separately redeemed. The applicable Registrar shall promptly notify the Authority, the Trustee and the Co-Trustee in writing of the Bonds or portions thereof selected for redemption. In the event that less than all of the Bonds of any Series and maturity are to be redeemed, the Bonds (or portions thereof) to be redeemed shall be selected by the Authority or, in the absence of such a selection by the Authority, by the applicable Registrar by lot within such maturity in such manner as the Registrar may determine. The amount of each Series and maturity of the Bonds to be redeemed shall be determined by Section 4.01 or the applicable Supplemental Indenture or, if permitted, by Request of the Authority.

In addition, a Supplemental Indenture providing for the issuance of Additional Bonds may specify any other method or order of selection of such Additional Bonds for redemption, subject to Section 4.01.

SECTION 4.03 <u>Notice of Redemption</u>. Notice of redemption (except as provided below) shall be given, not less than thirty (30) nor more than sixty (60) days before the date fixed for redemption, by first class mail to each of the registered owners of Bonds designated for

redemption at their addresses appearing on the Bond registration books of the applicable Registrar on the date the Bonds to be redeemed are selected. Each notice of redemption shall state the redemption date, the place or places of redemption, the Series and maturities to be redeemed, and, if less than all of any such maturity, the numbers of the Bonds of such maturity to be redeemed and, in the case of Bonds to be redeemed in part only, the respective portions of the principal amount thereof to be redeemed, and shall also state that on said date there will become due and payable on each of said Bonds the Redemption Price thereof or of said specified portion of the principal thereof in the case of a Bond to be redeemed in part only, together with interest accrued thereon to the redemption date, and that from and after such redemption date interest thereon shall cease to accrue, and shall require that such Bonds be then surrendered, with a written instrument of transfer duly executed by the registered owner thereof or by such registered owner's attorney duly authorized in writing. No defect in or failure to give such mailed notice of redemption shall affect the validity of proceedings for the redemption of such Bonds. Each notice of redemption shall also state the CUSIP number, date of issue and interest rate on each Bond, or portion thereof, to be redeemed, and shall include the redemption agent name and address; provided, however, that failure to include any of such information in any redemption notice, or any inaccuracy in any such information, shall not affect the sufficiency of the proceedings for redemption of any Bonds.

A copy of any notice of redemption given pursuant to the foregoing paragraph shall also be sent by first class mail to each Owner of \$1,000,000 or more in aggregate principal amount of Bonds to be redeemed and to each of the Fiduciaries, each of the Credit Providers, the Securities Depositories (as defined below) and two or more Information Services (as defined below); provided, however, that failure to give notice pursuant to this sentence by certified mail to any Bondowners, to any Fiduciaries, to any Credit Providers or to any Securities Depositories or Information Services, or the insufficiency of any such notices, shall not affect the sufficiency of the proceedings for redemption of any Bonds. A second notice shall be sent by first class mail to the registered owner of any Bond which has been called for redemption in whole or in part, and is not surrendered for payment within sixty (60) days after the date fixed for redemption; provided, however, that failure to send any such second notice, or any deficiency of any such notice, shall not affect the sufficiency of the proceedings for redemption of any Bonds. As used in this paragraph, the term "Information Services" means Financial Information, Inc.'s "Daily Called Bond Service," 30 Montgomery Street, 10th Floor, Jersey City, New Jersey 07302, Attention: Editor; Kenny Information Services' "Called Bond Service," 55 Broad Street, 28th Floor, New York, New York 10004; Moody's "Municipal and Government," 99 Church Street, 8th Floor, New York, New York 10007, Attention: Municipal News Reports; and Standard and Poor's "Called Bond Record," 25 Broadway, 3rd Floor, New York, New York 10004; or, in accordance with then-current guidelines of the Securities and Exchange Commission, and/or such other services providing information with respect to called bonds, or no such services, as the Authority may designate in a Certificate delivered to the Trustee; and the term "Securities Depositories" means: The Depository Trust Company, 711 Stewart Avenue, Garden City, New York 11530, Fax-(516) 227-4039 or 4190; and/or, in accordance with then-current guidelines of the Securities and Exchange Commission, such other securities depositories, or no such depositories, as the Authority may designate in a Certificate delivered to the Trustee.

Notice of redemption of Bonds shall be given by the applicable Registrar for and on behalf of the Authority.

A Supplemental Indenture providing for the issuance of Bonds may provide that notice of the redemption of such Bonds shall be given at times and in a manner different from that specified above.

SECTION 4.04 <u>Partial Redemption</u>. Upon surrender of any Bond redeemed in part only, the Authority shall execute and the applicable Registrar shall authenticate and deliver to the registered owner thereof, at the expense of the Authority, a new Bond or Bonds of authorized

denominations, and of the same Series, maturity and tenor, equal in aggregate principal amount to the unredeemed portion of the Bond surrendered.

SECTION 4.05 <u>Effect of Redemption</u>. Notice of redemption having been duly given as aforesaid, and moneys being held by the Trustee, the Co-Trustee or Paying Agents for payment of the Redemption Price of, and interest accrued to the redemption date on, the Bonds (or portions thereof) so called for redemption on the redemption date designated in such notice, such Bonds (or such portions) shall become due and payable at the Redemption Price specified in such notice plus interest accrued thereon to the date fixed for redemption, interest on the Bonds so called for redemption shall cease to accrue, said Bonds (or portions thereof) shall cease to be entitled to any benefit or security under this Indenture, and the Owners of said Bonds shall have no rights in respect thereof except to receive payment of said Redemption Price and accrued interest.

All Bonds purchased or redeemed pursuant to the provisions of this Indenture shall be cancelled upon surrender thereof and delivered to or upon the Order of the Authority.

SECTION 4.06 <u>Rescission of Notice of Redemption</u>. The Authority may, at its option and expense, prior to the date fixed for redemption in any notice of redemption rescind and cancel such notice of redemption.

#### ARTICLE V

#### **REVENUES AND FUNDS**

SECTION 5.01 Pledge and Assignment of Revenues; Revenue Fund.

(A) Subject only to the provisions of this Indenture permitting the application thereof for or to the purposes and on the terms and conditions set forth herein and to the provisions of that certain Consent Decree dated April 24, 2003 and the related Order dated May 9, 2003, relating to *United States of America v. Government of Guam* (settling a lawsuit filed on behalf of the U.S. Navy against the Government and the Authority), there are hereby pledged to secure the payment of the principal of, premium, if any, and interest on the Bonds in accordance with their terms and the provisions of this Indenture and the payment of Credit Agreement Payments and Parity Payment Agreement Payments in accordance with their terms, all of the Revenues. Said pledge shall constitute a lien on and security interest in such Revenues and shall attach, be perfected and be valid and binding from and after delivery by the applicable Registrar of the first Series of Bonds hereunder, without any physical delivery of such Revenues or further act.

- (B) The Depositary for the Revenue Fund shall maintain and hold in trust the Revenue Fund so long as any Bonds, Credit Agreement Payments, or Parity Payment Agreement Payments remain Outstanding. The Authority shall deposit all Revenues upon the receipt thereof in the Revenue Fund. Subject only to the provisions of this Indenture permitting the application thereof for or to the purposes and on the terms and conditions set forth herein and therein, the Trustee and the Depositary shall be entitled to and shall collect and receive all of the Revenues, and any Revenues collected or received by the Authority shall be deemed to be held, and to have been collected or received, by the Authority as the agent of the Trustee, the Co-Trustee and the Depositary for the Revenue Fund and shall forthwith be paid by the Authority to such Depositary.
- (C) (1) In addition to the Revenue Fund, the Depositary for the Revenue Fund shall establish within the Revenue Fund and maintain and hold in trust hereunder additional separate funds designated as follows:

- (a) The "Operation and Maintenance Fund";
- (b) The "Subordinate Securities Fund" (which may be held by the applicable trustee or depositary for any Subordinate Securities);
- (c) the "Operation, Maintenance, Renewal and Replacement Reserve Fund":
- (d) the "Rate Stabilization Fund";
- (e) the "Capital Improvement Fund"; and
- (f) the "Rebate Fund".

The Operation, Maintenance, Renewal and Replacement Reserve Fund, the Rate Stabilization Fund and the Capital Improvement Fund may also be held by any one or more Depositaries other than the Depositary for the Revenue Fund.

- (2) The Co-Trustee shall establish, maintain and hold in trust the following additional fund and accounts:
  - (a) the Debt Service Fund (within the Revenue Fund); and
  - (b) the Bond Reserve Fund (within the Revenue Fund).
- (D) All moneys at any time deposited with the Trustee, the Co-Trustee or any Depositary, as the case may be, shall be held by the Trustee, the Co-Trustee or such Depositary, as the case may be, in trust for the benefit of the Owners at any time of the Bonds (and, to the extent any Credit Agreement Payment is due and payable, for the benefit of the applicable Credit Provider), and the Authority shall have no beneficial right or interest in any of such moneys, except as provided in this Indenture. All Revenues and other moneys so deposited shall be held, disbursed, allocated and applied only as provided in this Indenture.
- SECTION 5.02 <u>Allocation of Revenues</u>. On or before the fifth day of each calendar month, after providing for any amounts due under the Consent Decree described in Section 5.01 for which revenues from the Navy/GPA Surcharge are not available to pay, the Depositary for the Revenue Fund shall transfer from the Revenue Fund (to the Trustee as necessary) for deposit into one or more of the following respective separate funds, the following amounts in the following order of priority, the requirements of each such fund or account (including the making up of any deficiencies in any such fund or account resulting from lack of Revenues sufficient to make any earlier required deposit) at the time of deposit to be satisfied, and the results of such satisfaction being taken into account, before any transfer is made to any fund subordinate in priority:
- (A) into the Operation and Maintenance Fund, an amount equal to the amount of Operation and Maintenance Expenses budgeted by the Authority, pursuant to the budget, as revised, filed in accordance with Section 6.08, to be paid from Revenues during the next succeeding calendar month (including any amount to be held as a reserve for transfer to the Rebate Fund) plus the amount of any Other Credit Agreement Payments then due and payable or to become due and payable during such month not otherwise included in such amount;

- (B) into the Debt Service Fund held by the Co-Trustee, an amount equal to the amount necessary to increase the amount in the Debt Service Fund to the aggregate amount for all Outstanding Bonds of all unpaid interest, principal and Mandatory Sinking Account Payments and for all Outstanding Parity Payment Agreements of all Parity Payment Agreement Payments with respect thereto and for all Outstanding Credit Agreements of all Credit Agreement Reimbursement Payments due and payable to the extent not otherwise included in such amount which shall be required to have been transferred to the Debt Service Fund on the basis of the following transfer requirement rules (after taking into account amounts transferred and to be transferred from any Construction Account to pay Capitalized Interest):
- (1) an amount equal to the amount of interest payable on each Bond on a current uncompounded basis on any Interest Payment Date shall be transferred in equal monthly amounts over the Interest Accrual Period for such Bond ending on such Interest Payment Date (or in the case of Variable Rate Bonds 110% of the amount of interest accrued during the next preceding calendar month less any excess deposited for the next preceding calendar month); provided that to the extent that a Qualified Counterparty is obligated to make payments to the Authority on or prior to such Interest Payment Date pursuant to an Outstanding Payment Agreement Related to any Bonds, an amount equal to the amount of any such payment obligation shall be transferred from the Revenue Fund to the Debt Service Fund on the date such payment is due and the amount of each monthly transfer with respect to such Bonds required by this subparagraph (1) during the Interest Accrual Period (or portion thereof) over which such payment obligation accrues shall be reduced by an amount equal to the amount of such Qualified Counterparty's payment obligation accruing during the next preceding calendar month;
- (2) the amount of interest payable on each Bond on a deferred compounded basis on any Interest Payment Date shall be transferred in substantially equal monthly amounts over the period during which such interest accrues on such basis;
- (3) the amount of the principal of each Bond shall be transferred in equal monthly amounts over the Principal Payment Period for such Bond ending on the maturity date for such Bond;
- (4) the amount of each Mandatory Sinking Account Payment for Bonds shall be transferred in equal monthly amounts over the Principal Payment Period for such Bonds ending on the date such Mandatory Sinking Account Payment is due;
- Payment Agreement Payment Date shall be transferred (a) in the case of such payments calculated based on a fixed rate, in equal monthly installments over the Payment Agreement Payment Accrual Period for such Payment Agreement Payment ending on such Payment Agreement Payment Date and (b) in the case of such payments calculated based on a variable rate, in monthly installments equal to 110% of the amount of such obligation accrued during the next preceding calendar month less any excess deposited for the next preceding calendar month; and
- (6) to the extent not otherwise included in amounts described in subparagraphs (1) through (5) above, the amount of any Credit Agreement Reimbursement Payment due and payable shall be transferred.
- (C) only to the extent specified in a Supplemental Indenture for a Series of Bonds, into the Bond Reserve Fund held by the Co-Trustee, the amount, if any, needed to increase the amount in the Bond Reserve Fund to the Bond Reserve Fund Requirement as of the date of such transfer;

- (D) into the Subordinate Securities Fund (and any accounts therein), the amount, if any, needed to increase the amount in such Fund and each such account to its requirement (including any requirements for reasonable debt service reserves and requirements related to Payment Agreements that constitute Subordinate Securities (including Termination Payments)) established by each resolution, indenture or other instrument pursuant to which Subordinate Securities are issued and outstanding;
- (E) into the Operation, Maintenance, Renewal and Replacement Reserve Fund, the amount, if any, needed to increase the amount in the Operation, Maintenance, Renewal and Replacement Reserve Fund to a requirement equal to one-fourth (1/4) of the sum of the amounts of Operation and Maintenance Expenses and Renewal and Replacement Costs budgeted by the Authority, pursuant to the budget, as revised, filed in accordance with Section 6.08, for the then current Fiscal Year; *provided*, *however*, that prior to the Fiscal Year beginning October 1, 2010, the deposit into such fund each month shall not be required to be greater than one-sixtieth (1/60) of such requirement for the then current Fiscal Year:
- (F) into the Rate Stabilization Fund, the amount specified for such month in a Certificate of the Authority which also certifies that such amount is consistent with the annual budget established by the Authority pursuant to Section 6.08; and
- (G) into the Capital Improvement Fund, the balance remaining in the Revenue Fund after the foregoing deposits.

SECTION 5.03 Application of Operation and Maintenance Fund. All amounts in the Operation and Maintenance Fund shall be used and withdrawn by the Authority upon Requisition solely for the purpose of paying Operation and Maintenance Expenses; provided that any amounts deposited in the Operation and Maintenance Fund for the purpose of paying Other Credit Agreement Payments shall be used and withdrawn only for the purpose for which they were deposited. For purposes of this Section, any check, draft, warrant or purchase order of the Authority executed by an officer or employee of the Authority duly authorized by resolution of the Board of Directors of the Authority to execute such instruments shall be treated as a Requisition.

#### SECTION 5.04 Rebate Fund.

- (A) If and to the extent required by the Supplemental Indenture providing for the issuance of a Series of Bonds, the Trustee shall establish and maintain within the Rebate Fund a separate Rebate Account for such Series. There shall be deposited in such Rebate Account from amounts in the Operation and Maintenance Fund or other lawfully available moneys such amounts as are required to be deposited therein pursuant to the Tax Certificate with respect to such Series of Bonds. All money at any time deposited in a Rebate Account shall be held by the Trustee in trust, and shall be governed exclusively by this Section and by the Tax Certificate with respect to such Series of Bonds.
- (B) Notwithstanding any provisions of this Section, if the Authority shall provide to the Trustee an opinion of Bond Counsel that any specified action required under this Section is no longer required or that some further or different action is required to maintain the exclusion, if any, from gross income for federal income tax purposes of interest on any Series of Bonds, the Trustee and the Authority may conclusively rely on such opinion in complying with the requirements of this Section, and, notwithstanding Article IX of this Indenture, the covenants hereunder shall be deemed to be modified to that extent.

SECTION 5.05 <u>Application of Debt Service Fund</u>. (A) Subject to subsection (C) of this Section, all amounts in the Debt Service Fund shall be used and withdrawn by the Co-Trustee

solely for the purpose of (1) paying interest on Bonds as it shall become due and payable (including accrued interest on any Bonds purchased or redeemed prior to maturity pursuant to this Indenture), (2) paying the principal of Serial Bonds when due and payable, (3) purchasing or redeeming or paying at maturity Term Bonds as provided in this Section, (4) paying Parity Payment Agreement Payments due and payable, and (5) paying Credit Agreement Reimbursement Payments due and payable.

- (B) Subject to subsection (C) of this Section, on each Mandatory Sinking Account Payment date, the Co-Trustee shall apply the Mandatory Sinking Account Payment or Payments required on that date to the redemption (or payment at maturity, as the case may be) of the applicable Term Bonds upon the notice and in the manner provided in Article IV. At any time prior to giving such notice of such redemption, the Co-Trustee, upon the Request of the Authority, shall apply moneys in the Debt Service Fund, in an amount not in excess of such Mandatory Sinking Account Payment, to the purchase of the applicable Term Bonds at public or private sale, as and when and at such prices (including brokerage and other charges) as are specified in such Request, except that the purchase price (excluding accrued interest) shall not exceed the price that would be payable for such Bonds upon redemption by application of such Mandatory Sinking Account Payment.
- (C) If (1) during the twelve-month period immediately preceding a Mandatory Sinking Account Payment date the Co-Trustee purchases the applicable Term Bonds with moneys in the Debt Service Fund, or (2) during said period and prior to giving notice of redemption the Authority otherwise deposits the applicable Term Bonds with the Co-Trustee (together with a Request of the Authority to apply such Bonds so deposited to the Mandatory Sinking Account Payment due on said date), the amount of Bonds so purchased or deposited shall be credited at the time of such purchase or deposit, to the extent of the full principal amount thereof, to reduce such Mandatory Sinking Account Payment. All Bonds purchased or deposited pursuant to this subsection shall be cancelled and destroyed by the Co-Trustee.
- (D) With respect to each series of Bonds for which proceeds of the sale thereof are required to be set aside to pay interest on the Bonds, the Co-Trustee (if so instructed by the Supplemental Indenture providing for the issuance of such series) shall transfer from the Construction Fund and deposit in the Debt Service Fund the amounts at the times specified in the Supplemental Indenture providing for the issuance of such Series.

SECTION 5.06 Application of Bond Reserve Fund. All amounts in the Bond Reserve Fund shall be used and withdrawn by the Co-Trustee solely for the purpose of paying debt service on Bonds (including Payment Agreement Payments to the extent provided in any Supplemental Indenture) in the event of a deficiency in the Debt Service Fund, in the manner and to the extent set forth in Section 5.12. So long as the Authority is not in default hereunder, any amount in the Bond Reserve Fund in excess of the Bond Reserve Fund Requirement shall be transferred to the Revenue Fund. A Supplemental Indenture providing for the issuance of a Series of Bonds may provide that income derived from the investment of the proceeds of such Series in the Bond Reserve Fund prior to the completion of each Project for which such Bonds were issued shall be deposited in the Construction Account for such Project. Otherwise, such income shall be deposited in the Revenue Fund.

If and to the extent provided by Supplemental Indenture, the Bond Reserve Fund Requirement may be wholly or partially satisfied by a Credit Facility. Notwithstanding anything to the contrary contained hereinbefore in this Section or in Article IV, such Supplemental Indenture may also provide that a draw on such Credit Facility shall be made only after all cash in the Bond Reserve Fund has been withdrawn, and that if a drawing or other claim on such Credit Facility is honored, amounts available under Section 5.02(C) for deposit in the Bond Reserve Fund shall be applied by the Co-Trustee to reimburse, as soon as practicable, the amount of each payment honoring such drawing or other claim,

and the Trustee shall give any notice of such reimbursement required by the applicable Credit Agreement. No such Credit Facility shall be given any priority over any other such Credit Facility as to draws or repayments.

SECTION 5.07 <u>Application of Subordinate Securities Fund</u>. All amounts in the Subordinate Securities Fund may be used and withdrawn, as directed by a Request of the Authority, for the purpose of paying debt service due on Subordinate Securities, amounts due pursuant to Payment Agreements (including Termination Payments), funding or replenishing reasonable reserves and meeting other requirements of the instrument pursuant to which such Subordinate Securities are issued.

Replacement Reserve Fund. All amounts in the Operation, Maintenance, Renewal and Replacement Reserve Fund shall be used and withdrawn upon Requisition of the Authority solely for the purposes of (A) paying Operation and Maintenance Expenses if and to the extent that amounts on deposit in the Operation and Maintenance Fund are insufficient for such purpose, (B) paying Renewal and Replacement Costs budgeted by the Authority, pursuant to the budget, as revised, filed in accordance with Section 6.08, for the then current Fiscal Year, and (C) paying the costs of repair or replacement of loss or damage caused by or resulting from fire or from action of the elements (including loss from typhoons, earthquakes, floods and tidal waves), whether or not such costs are Operation and Maintenance Expenses or Renewal and Replacement Costs. For purposes of this Section, any check, draft, warrant or purchase order of the Authority executed by an officer or employee of the Authority duly authorized by resolution of the Board of Directors of the Authority to execute such instruments shall be treated as a Requisition.

SECTION 5.09 <u>Application of Rate Stabilization Fund</u>. All amounts in the Rate Stabilization Fund shall be transferred by the Authority from time to time to the Revenue Fund in the amounts specified by a Certificate of the Authority which also certifies that such amount is consistent with the annual budget established by the Authority pursuant to Section 6.08.

SECTION 5.10 <u>Application of Capital Improvement Fund</u>. Except as may be otherwise set forth in a Supplemental Indenture, all amounts in the Capital Improvement Fund may be used and withdrawn by the Authority for any lawful purpose of the Authority or may be transferred to the Revenue Fund, in each case upon Request of the Authority. The Authority may direct the appropriate Depositary to establish accounts within the Capital Improvement Fund for appropriate purposes, and may restrict the purposes for which amounts in any such account may be used and withdrawn so long as such purposes are lawful purposes.

SECTION 5.11 <u>Deficiencies in Funds or Accounts</u>. In the event that the amount in any Fund or Account is insufficient for the purposes for which such Fund or Account was established, the Co-Trustee, or the Trustee or the Depositary upon the direction of the Co-Trustee, shall transfer to such Fund or Account the amount of such deficiency by withdrawing said amount from subordinate Funds and Accounts in reverse order of the priority set forth in Section 5.02 and prior to any other claims upon such Funds and Accounts, subject only to the limitation that amounts in the Bond Reserve Fund shall only be used as provided in Section 5.06. If after making all such transfers, the amount in the Debt Service Fund is insufficient, the Co-Trustee shall promptly notify each Credit Provider of the amount of such insufficiency.

SECTION 5.12 <u>Investment of Moneys in Funds</u>. All Investment Securities and any other investments acquired with moneys held hereunder shall be acquired subject to the limitations of any covenant relating to the exclusion of interest on Bonds from gross income for federal income tax purposes, to the limitations as to maturities hereinafter in this Section set forth and to such additional limitations or requirements consistent with the foregoing as may be established by Request of the

Authority. No Investment Security which is subject to redemption at the option of the issuer may be purchased at a premium above the amount of the premium payable upon any such redemption.

Moneys in the Construction Accounts, the Rebate Fund, the Debt Service Fund and the Bond Reserve Fund shall be invested solely in Investment Securities to maximize investment income, with proper regard for the preservation of principal, pursuant to a Request of the Authority as to such investment. In the absence of any different instruction, such moneys shall be invested in Investment Securities described in clause (F) of the definition thereof.

Moneys in the Revenue Fund, the Operation and Maintenance Fund, the Subordinate Securities Fund, the Operation, Maintenance, Renewal and Replacement Reserve Fund and the Capital Improvement Fund may be invested in any investment designated by Request of the Authority.

Notwithstanding any other provision hereof, moneys in the Revenue Fund and the Bond Reserve Fund shall be invested only in Investment Securities having at least an investment grade rating from the Rating Agency.

Subject to the provisions of any Supplemental Indenture, moneys in all Funds and Accounts established under this Indenture shall be invested in investments paying interest and maturing not later than the dates on which it is estimated that such moneys will be required by the Trustee, the Co-Trustee, the applicable Depositary or the Authority.

All interest and other profit derived from such investments shall be deposited in the Revenue Fund when received, except that interest and other profit derived from the investment of moneys in the Construction Accounts, the Capital Improvement Fund and the Rebate Fund shall be retained in such respective Fund or Account, and except that interest and other profit derived from the investment of moneys in the Bond Reserve Fund shall be deposited as provided in Section 5.06. Investments acquired as an investment of moneys in any Fund or Account established under this Indenture shall be credited to such Fund or Account.

Subject to the provisions of any Supplemental Indenture, for the purpose of determining the amount in any Fund or Account, except the Rebate Fund, the amount of any obligation allocable to such Fund or Account shall be equal to the purchase price of such obligation (not including accrued interest, if any, paid on the purchase of such obligation) plus the amount of any discount below par accounting for any such discount ratably each year over the term of such obligation (i.e., by dividing the amount of such discount by the number of interest payments remaining to maturity and by multiplying the amount so calculated by the number of interest payment dates having passed since the date of purchase) (in this Section called "amortized value"); provided, however, that the amount of any accrued interest on any obligation may be credited to the Revenue Fund or to any Fund or Account to which such amount or any portion thereof may have been transferred from the Revenue Fund.

The Trustee, the Co-Trustee or the applicable Depositary may sell at the best price obtainable, or present for redemption, any security purchased hereunder whenever it shall be necessary in order to provide moneys to meet any required payment, transfer, withdrawal or disbursement from the Fund or Account to which such security is credited, and the Trustee, the Co-Trustee and such Depositary shall not be liable or responsible for any loss resulting from such investment.

#### ARTICLE VI

## **CERTAIN COVENANTS**

SECTION 6.01 <u>Payment of Principal and Interest</u>. The Authority will punctually pay or cause to be paid the principal and interest (and premium, if any) to become due in respect of every Bond issued hereunder at the times and places and in the manner provided herein and in the Bonds, in strict conformity with the terms of the Bonds and of this Indenture, but solely from Revenues and other moneys held in trust hereunder, as provided herein.

SECTION 6.02 <u>Against Encumbrances</u>. Subject to any rights of the United States of America or as otherwise set forth herein, the Authority will not mortgage or otherwise encumber, pledge or place any charge upon the System or any part thereof, or upon any of the Revenues, prior to or on a parity with the Bonds, the Parity Payment Agreements and Credit Agreement Payments.

So long as any Bonds are Outstanding, the Authority will not issue any bonds or obligations payable from Revenues or secured by a pledge, lien or charge upon Revenues prior to or on a parity with the Bonds, the Parity Payment Agreements and the Credit Agreement Payments, other than the Bonds, the Parity Payment Agreements and the Credit Agreement Payments.

Except as may be otherwise set forth in a Supplemental Indenture, nothing in this Indenture, and particularly nothing in the preceding two paragraphs, shall prevent the Authority from authorizing and issuing bonds, notes, warrants, certificates or other obligations or evidences of indebtedness which as to principal or interest, or both, (1) are payable from Revenues after and subordinate to the payment from Revenues of the principal of and interest on the Bonds, the Parity Payment Agreement Payments and Credit Agreement Payments, or (2) are payable from moneys which are not Revenues as such term is defined in this Indenture.

SECTION 6.03 Sale or Other Disposition of Property. (A) The Authority and the Government will not sell or otherwise dispose of the System or any part thereof, or permit others to sell or otherwise dispose of the System or any part thereof, essential to the proper operation of the System or to the collection of Revenues sufficient to pay debt service on the Bonds, Parity Payment Agreement Payments and Credit Agreement Payments and otherwise comply with Section 6.12. The Authority will not enter into any agreement which impairs the operation of the System or impedes the collection of Revenues sufficient to pay debt service on the Bonds, Parity Payment Agreement Payments and Credit Agreement Payments and otherwise comply with Section 6.12.

(B) Any real or personal property which has become nonoperative or which is not needed for the efficient and proper operation of the System, or any material or equipment which has worn out, may be sold at a price not less than the fair market value thereof if such sale will not reduce Net Revenues and if the net proceeds of such sale are deposited in the Revenue Fund.

SECTION 6.04 Operation and Maintenance of the System. The Authority will maintain and preserve the System in good repair and working order at all times from the Revenues available for such purposes, in conformity with prudent management and standards customarily followed in the industry for systems of like size and character. The Authority will from time to time make all necessary and proper repairs, renewals, replacements and substitutions to the properties of the System, so that at all times business carried on in connection with the System shall and can be properly and advantageously conducted in an efficient manner and at reasonable cost. The Authority will operate the System in an efficient and economical manner, consistent with the protection of the Owners of the Bonds and so as to assure that the System shall be financially self-sufficient and self-sustaining. The Authority

shall not commit or allow any waste with respect to the System. Nothing herein shall prohibit the Authority from subcontracting any part of the maintenance and operation of the System.

America, the Authority shall keep the System and all parts thereof free from judgments, from mechanics' and materialmen's liens and from all liens and claims of whatsoever nature or character, to the end that the security provided pursuant to this Indenture may at all times be maintained and preserved, and the Authority shall keep the System and the Revenues free from any liability which might hamper the Authority in conducting its business or operating the System. The Trustee or and Co-Trustee at its option (after first giving the Authority ten days written notice to comply therewith and failure of the Authority to so comply within said ten-day period) may defend against any and all actions or proceedings in which the validity of this Indenture is or might be questioned, or may pay or compromise any claim or demand asserted in any such actions or proceedings; provided, however, that, in defending against such actions or proceedings or in paying or compromising such claims or demands, the Trustee or the Co-Trustee shall not in any event be deemed to have waived or released the Authority from liability for or on account of any of its covenants and warranties contained herein, or from its liability hereunder to defend the validity of this Indenture and the pledge herein made and to perform such covenants and warranties.

# SECTION 6.06 Insurance.

- (A) The Authority will maintain or cause to be maintained insurance on the System with responsible insurers in such amounts and against such risks (including accident to or destruction of the System) as are usually maintained by prudent operators of systems similar and similarly situated to the System and which it shall deem advisable or necessary to protect its interests and the interests of the Bondowners so long as such insurance is available to the Authority on the open market from responsible insurers at reasonable cost. In the event of any damage to or destruction of the System caused by the perils covered by such insurance, the proceeds of such insurance shall be applied to the repair, reconstruction or replacement of the damaged or destroyed portion of the System; and the Authority shall cause such repair, reconstruction or replacement to begin promptly after such damage or destruction shall occur and to continue and to be properly completed as expeditiously as possible. If the proceeds received by reason of any such loss shall exceed the costs of such repair, reconstruction or replacement, the Authority shall deposit such excess in the Capital Improvement Fund. Notwithstanding the foregoing, if the proceeds of such insurance, together with other moneys available for such purpose, are sufficient to enable the Authority to retire all Outstanding Bonds, whether at maturity or on redemption prior to maturity or any combination thereof, and to pay the Parity Payment Agreement Payments and any Termination Amount payable by the Authority pursuant to Parity Payment Agreements in connection with a termination thereof, and to pay any Credit Agreement Payments then due and payable the Authority may elect not to repair, reconstruct or replace the damaged or destroyed portion of the System, and thereupon, the proceeds of such insurance shall be applied by the Authority and the Trustee to the payment when due of the interest to become due on all Outstanding Bonds on and prior to the maturity date or redemption date thereof, as the case may be, to the payment of the principal of and redemption premiums, if any, on all Outstanding Bonds at maturity or on redemption prior to maturity, as the case may be, and to the payment of such Parity Payment Agreement Payments and any such Termination Amounts, as the case may be, when due and to pay any Credit Agreement Payments then due and payable.
- (B) The Authority will maintain such other insurance which it shall deem advisable or necessary to protect its interests and the interests of the Bondowners, which insurance shall afford protection in such amounts and against such risks as are usually maintained by prudent operators of systems similar to the System.

(C) Any insurance required under this Section may be maintained under a self-insurance program so long as such self-insurance is maintained in the amounts and manner customarily maintained by prudent operators of systems similar to the System. The Authority shall, every third year, engage an insurance consultant to review the Authority's self-insurance program and to make recommendations for any necessary modifications, including, but not limited to, any modifications necessary to comply with this Section. Each such report shall be filed with the Trustee.

SECTION 6.07 <u>Books and Accounts; Financial Statements</u>. (A) The Authority will keep proper books of record and accounts, separate from all other records and accounts, in which complete and correct entries shall be made of all transactions relating to the System. Such books of record and accounts shall at all times during business hours be subject to the inspection of the Trustee, the Co-Trustee or any Owner of Bonds then Outstanding or their representatives authorized in writing, at reasonable hours and under reasonable conditions.

- (B) The Authority will prepare and file with the Trustee and the Co-Trustee annually within nine months after the close of each Fiscal Year so long as any of the Bonds are Outstanding --
- (1) financial statements for the preceding Fiscal Year, prepared in accordance with (i) the accounting requirements of this Indenture and (ii) generally accepted accounting principles applied on a consistent basis from year to year, including a balance sheet, statement of income, statement of retained earnings, and statement of changes in financial position (including a statement of revenue, expenditures and fund balances for each of the Funds and Accounts established pursuant to this Indenture), and including a reconciliation between the bases of accounting required under clauses (i) and (ii) above, which financial statements shall be examined by and include the certificate or opinion of an Independent Certified Public Accountant, such certificate or opinion to include a statement as to the manner and extent to which the Authority has complied with the provisions of this Indenture as it relates to said financial statements; and
- (2) a statement as to all insurance carried by the Authority as of the end of such Fiscal Year, including a brief description of the amount and coverage of each insurance policy and the name of the insuring company.

The Authority will furnish a copy of the aforesaid statements to any Credit Provider and to any Bondowner upon request, and will furnish to the Trustee such reasonable number of copies thereof (not exceeding 100 copies) as may be required by the Trustee for distribution to investment bankers, securities dealers and others interested in the Bonds and to the Owners of Bonds requesting copies thereof. The Trustee shall not be required to incur any nonreimbursable expenses in making such distribution.

SECTION 6.08 Authority Budgets. Prior to the commencement of each Fiscal Year, the Authority shall prepare and adopt an annual budget for such Fiscal Year. Such budget shall set forth in reasonable detail the Revenues anticipated to be derived in such Fiscal Year and the expenditures anticipated to be paid or provided for therefrom in such Fiscal Year including, without limitation, the amounts required to provide for the payment of the principal of, interest and redemption premium, if any, on the Bonds during such Fiscal Year, to pay or provide for Operation and Maintenance Expenses for such Fiscal Year, to pay or provide for Renewal and Replacement Costs for such Fiscal Year, to make up any deficiencies in any Fund or Account anticipated for the then current Fiscal Year, to transfer to or from the Rate Stabilization Fund each month, and to pay or provide for the payment of all other claims or obligations required to be paid from Revenues in such Fiscal Year, and shall show that Net Revenues shall be at least adequate to satisfy the requirements of Section 6.12. The Authority shall supply to the Trustee, the Co-Trustee, the Revenue Fund Depositary, any Credit Provider and any Bondowners who

shall so request in writing a copy of the annual budget for the then current Fiscal Year. Such budget shall also be open for inspection by any Owner during normal business hours. The Authority may at any time adopt a revised annual budget and shall supply copies as aforesaid.

SECTION 6.09 Payment of Taxes, Etc. The Authority will pay and discharge, or cause to be paid and discharged, all taxes, assessments and other governmental charges which may hereafter be lawfully imposed upon the Authority on account of the System or any portion thereof or upon any Revenues and which, if unpaid, might impair the security of the Bonds, when the same shall become due, but nothing herein contained shall require the Authority to pay any such tax, assessment or charge so long as it shall in good faith contest the validity thereof. The Authority will duly observe and conform with all valid requirements of any governmental authority having jurisdiction over the Authority or the System or any part thereof.

SECTION 6.10 <u>Acquisition and Construction of Improvements</u>. The Authority will commence and will continue to completion the acquisition and construction of the improvements to the System proposed to be financed from any Series of Bonds, and said improvements will be acquired, constructed and completed in a sound and economical manner and in conformity with law.

SECTION 6.11 Eminent Domain Proceeds. If all or any part of the System shall be taken by or under threat of eminent domain proceedings, the net proceeds realized by the Authority therefrom (excluding any portion thereof payable to the United States of America or required by the United States of America to be deposited in a restricted fund) shall be deposited by the Chief Financial Officer in a special fund in trust and applied and disbursed by the Chief Financial Officer subject to the following conditions:

- (A) If such proceeds are sufficient to provide for the payment of the entire amount of principal due or to become due upon all of the Bonds, together with all of the interest due or to become due thereon and any redemption premiums, and all amounts payable under Parity Payment Agreements (including Termination Amounts) and all Credit Agreement Payments then due and payable so as to enable the Authority to retire all of the Bonds, either by redemption at the then current redemption prices or by payment at maturity or partly by redemption prior to maturity and partly by payment at maturity, and terminate such Parity Payment Agreements and discharge such obligations with respect to such Credit Agreement Payments, the Chief Financial Officer shall transfer such moneys to the Trustee who shall apply such moneys to such retirement and to the payment of such amounts. The balance of such moneys, if any, shall be transferred back to the Authority and shall be deposited in the Capital Improvement Fund.
- (B) If such proceeds are insufficient to provide the moneys required for the purposes set forth in the foregoing subsection (A), the Authority shall by resolution determine to apply such proceeds for one of the following purposes, subject to the conditions hereinafter in this subsection (B) set forth:
- (1) The Authority may determine to apply such proceeds to the purchase or redemption of Bonds then Outstanding and to the payment of Credit Agreement Payments then due and payable. In that event, the Chief Financial Officer shall transfer such proceeds to the Trustee, who shall apply such proceeds pro rata to the redemption or purchase of Bonds of each Series then Outstanding in the proportion which the principal amount of outstanding Bonds of each Series bears to the aggregate principal amount of all Bonds then Outstanding.
- (2) The Authority may determine to apply such proceeds to the cost of additions or improvements to or extensions of the System if the Authority first secures and files with the Trustee a report of an Independent Consulting Engineer (a) showing (i) the loss in annual Revenues, if

any, suffered or to be suffered, by the Authority by reason of such eminent domain proceedings, (ii) a general description of the additions, improvements or extensions then proposed to be acquired by the Authority from such proceeds, and (iii) an estimate of the additional Revenues to be derived from such additions, improvements or extensions; and (b) determining that such eminent domain proceedings will not substantially impair the ability of the Authority to meet its obligations under Section 6.12. The Authority shall then promptly proceed with the construction of the additions, improvements or extensions substantially in accordance with such report. Payments for such construction shall be made by the Authority from such proceeds. Any balance of such proceeds not required by the Authority for the purposes aforesaid shall be deposited in the Capital Improvement Fund.

# SECTION 6.12 Rate Covenant.

(A) The Authority shall at all times fix, prescribe and collect rates, fees and charges in connection with the services furnished by the System which will be sufficient to yield the sum of Net Revenues during each Fiscal Year equal to at least 1.25 times the Aggregate Annual Debt Service for such Fiscal Year and to yield Revenues during each Fiscal Year equal to at least the aggregate amount of all transfers required by Section 5.02(A) through (E) for such Fiscal Year.

The debt service coverage ratio specified in this Section shall be the debt service coverage ratio used by the PUC, together with other appropriate factors, in setting rates.

If the financial statements prepared pursuant to Section 6.07(B)(1) reflect that (or if the Authority's other books and records at the time such statements are due hereunder reflect that) at the end of a Fiscal Year the sum of Net Revenues shall have been less than 1.25 times Aggregate Annual Debt Service for such Fiscal Year, or if Revenues shall have been less than the aggregate amount of all transfers required by Sections 5.02(A) through (E) for such Fiscal Year, the Authority shall promptly employ a Consulting Engineer to make recommendations as to a revision of such rates, fees and charges or the methods of operation of the System. The Authority shall, promptly upon its receipt of such recommendations, subject to applicable requirements or restrictions imposed by law and subject to a good faith determination of the Board that such recommendations, in whole or in part, are in the best interests of the Authority, the Owners and each Credit Provider, revise such rates, fees and charges or methods of operation and will take such other actions as shall be in conformity with such recommendations.

If the Authority complies in all material respects with the reasonable recommendations of the Consulting Engineer with respect to said rates, fees, charges and methods of operation or collection, or makes a good faith determination that such recommendations are not in the best interests of the Authority, the Authority will be deemed to have complied with this Section for such Fiscal Year; provided, that Net Revenues shall in no event have been less than Aggregate Annual Debt Service for such Fiscal Year.

- (B) The Authority may make adjustments from time to time in its rates, fees and charges and may make such classification thereof as it deems necessary, but shall not reduce such rates, fees and charges below those then in effect unless the Revenues from such reduced rates, fees and charges will at all times be sufficient to meet the requirements of this Section.
- SECTION 6.13 <u>Compliance with Indenture</u>. The Authority (and the Government as to Section 6.17) will faithfully observe and perform all the covenants, conditions and requirements of this Indenture, and will not suffer or permit any default to occur hereunder, or do or permit to be done, in, upon or about the System, or any part thereof, anything that might in any way weaken, diminish or impair the security intended to be given pursuant to this Indenture.

SECTION 6.14 Observance of Laws and Regulations. The Authority shall comply promptly, fully and faithfully with and abide by any contract relating to or affecting the availability of any grant or other similar assistance and any statute, law, ordinance, order, rule, regulation, judgment, decree, direction or requirement now in force or hereafter enacted, adopted or entered by any competent governmental authority or agency applicable or with respect to or affecting the acquisition, construction or reconstruction of the System or any part thereof or applicable or with respect to or affecting the operation, manner, use or condition of the System or any part or parcel thereof or adjoining public ways or relating to the imposition of charges or collection of Revenues; provided that the Authority need not comply with any such contract, statute, law, ordinance, rule, regulation, judgment, decree, direction or requirement if and so long as the Authority in good faith shall be contesting or permitting or causing to be contested the applicability or validity thereof by appropriate proceedings diligently prosecuted, even though such contest may result in the imposition of a lien or charge against the System or the Revenues, if (1) the Authority shall effectively prevent foreclosure or enforcement of any such lien or charge and (2) the foreclosure or enforcement of any such lien or charge shall be stayed, and if said stay thereafter expires, the Authority shall forthwith discharge such lien or charge or cause the same to be discharged, so that pending such proceedings the System and the Revenues thereof shall not be affected thereby, and the security of the Bonds shall not be impaired.

SECTION 6.15 Prosecution and Defense of Suits. The Authority shall promptly from time to time take such action as may be necessary or proper to remedy or cure any defect in or cloud upon the title to the System hereafter developing, and shall prosecute all such suits, actions and other proceedings as may be appropriate for such purposes and, to the extent permitted by law, shall indemnify and save the Trustee and every Bondowner harmless from all loss, cost, damage and expense, including attorneys' fees, which they or any of them may incur by reason of any such defect, cloud, suit, action or proceeding.

The Authority shall defend against every suit, action or proceeding at any time brought against the Trustee or any Bondowner upon any claim arising out of the receipt, application or disbursement of any of the Revenues or involving the rights of the Trustee or any Bondowner under this Indenture; provided, that the Trustee or any Bondowner at its or his election may appear in and defend any such suit, action or proceeding. To the extent permitted by law, the Authority shall indemnify and hold harmless the Trustee and the Bondowners against any and all liability claimed or asserted by any person arising out of such receipt, application or disbursement, and shall indemnify and hold harmless the Bondowners against any attorneys' fees or other expenses which any of them may incur in connection with any litigation to which any of them may become a defendant by reason of its ownership of Bonds. To the extent permitted by law, the Authority shall promptly reimburse any Bondowner in the full amount of any attorneys' fees or other expenses which such Bondowner may incur in litigation or otherwise in order to enforce its rights under this Indenture or the Bonds, if such litigation is concluded favorably to such Bondowner's contentions therein. Notwithstanding any contrary provision hereof, this Section shall remain in full force and effect, even though all indebtedness and obligations issued hereunder may have been fully paid and satisfied, until the Authority shall have been dissolved.

SECTION 6.16 <u>Further Assurances</u>. Whenever and so often as requested so to do by the Trustee or any Bondowner, the Authority will promptly execute and deliver or cause to be executed and delivered all such other and further instruments, documents or assurances, and promptly do or cause to be done all such other and further things, as may be necessary or reasonably required in order to further and more fully vest in the Trustee and the Bondowners all rights, interest, powers, benefits, privileges and advantages conferred or intended to be conferred upon them by this Indenture.

SECTION 6.17 <u>Pledge of the Government</u>. The Government hereby pledges to the holders of all Bonds the following: while any Bonds remain outstanding and not fully performed or

discharged (A) to maintain the rights, powers and duties of the Board and the Guam Public Utilities Commission, or their respective successors in accordance with law, to fulfill the terms of Bonds and this Indenture, (B) to maintain the rights and remedies of Bondholders provided in the Act and this Indenture, (C) to protect the exclusive right of the Authority to operate or maintain within Guam any water or wastewater system operated by the government or its designees by preventing the acquisition, operation, maintenance or permitting of any instrumentality of the Government or any other public or private agency, entity or person to operate a separate and competitive water and/or wastewater system, and (D) not to transfer any additional non-system operating responsibilities or other unfunded mandates to the Authority without providing for the payment of the costs of such additional responsibilities, with the exception of annual supplemental annuity and COLA contributions paid by the Authority on behalf of retired employees of the Authority (or its lawful predecessors) as may be required by other laws of Guam. The Authority includes this pledge and agreement of the Government in this Indenture as authorized by Section 14229 of the Act.

## ARTICLE VII

## EVENTS OF DEFAULT AND REMEDIES OF BONDOWNERS

SECTION 7.01 <u>Events of Default; Remedies</u>. (A) Any one or more of the following events shall be an "Event of Default" hereunder:

- (1) if default shall be made in the due and punctual payment of the principal of, or the premium (if any) on, any Bond when and as the same shall become due and payable, whether at maturity as therein expressed, by proceedings for redemption, or otherwise, or if default shall be made in the redemption or payment at maturity from any Sinking Account of any Term Bonds in the amounts and at the times provided therefor;
- (2) if default shall be made in the due and punctual payment of any installment of interest on any Bond or any Parity Payment Agreement Payment when and as such interest installment or Parity Payment Agreement Payment shall become due and payable;
- (3) if default shall be made by the Authority in the observance of any of the other covenants, agreements or conditions on its part in this Indenture or in the Bonds contained or by the Government in the observance of its covenant in Section 6.17, and such default shall have continued for a period of thirty (30) days after notice thereof, specifying such default and requiring the same to be remedied, shall have been given to the Authority by the Trustee, the Co-Trustee or a Credit Provider, or to the Authority, the Trustee and the Co-Trustee by the Owners of not less than twenty-five percent (25%) in aggregate principal amount of the Bonds at the time Outstanding; or
- (4) if the Authority shall file a petition or answer seeking reorganization or arrangement under the federal bankruptcy laws or any other applicable law of the United States of America, or if a court of competent jurisdiction shall approve a petition, filed with or without the consent of the Authority, seeking reorganization under the federal bankruptcy laws or any other applicable law of the United States of America, or if, under the provisions of any other law for the relief or aid of debtors, any court of competent jurisdiction shall assume custody or control of the Authority or of the whole or any substantial part of its property.
- (B) In each and every case during the continuance of an Event of Default, the Trustee in its own name and as Trustee of an express trust, on behalf and for the benefit and protection of the Bondowners, after notice to the Authority, and upon the request of the Owners of a majority in Accreted Value of the Bonds then Outstanding, shall proceed to protect and enforce any rights of the Trustee and,

to the full extent that the Bondowners themselves might do, the rights of such Bondowners under this Indenture and under the laws of the Government by such of the following remedies as such majority shall deem most effectual to protect and enforce such rights:

- (1) by mandamus or other suit, action or proceeding at law or in equity, to enforce all rights of the Bondowners, including the right to require the Authority to charge, prescribe and collect Revenues adequate to comply with the covenants and agreements made herein, and to require the Authority to carry out any other covenant or agreement with the Bondowners and to perform its duties under the Act;
  - (2) by bringing suit upon the Bonds;
- (3) by action or suit in equity, to require the Authority to account as if it were the trustee of an expressed trust for the Bondowners;
- (4) by realizing or causing to be realized through sale or otherwise upon the moneys, securities and other assets pledged hereunder;
- (5) by action or suit in equity, to enjoin any acts or things which may be unlawful or in violation of the rights of the Bondowners;
- (6) by requiring the Authority to endorse all checks and other negotiable instruments representing Revenues to the order of the Trustee immediately upon the receipt thereof and to deliver such endorsed instruments daily to the Trustee;
- (7) by notifying any or all account debtors of the Authority to pay any amounts representing Revenues, when due, directly to the Trustee as Trustee; and
- (8) by commencing proceedings for the appointment of a receiver or receivers of the System and of the Revenues, with such powers as the court making such appointment confers.

SECTION 7.02 Application of Funds Upon Default. All of the Revenues, all amounts in all of the Funds and Accounts provided for in Sections 3.02 (except any escrow fund established for the payment of any refunded obligations), 3.03, 5.01 and 5.02 upon the date of the declaration of an Event of Default as provided in Section 7.01 and all Revenues thereafter received by the Authority, the Trustee, the Co-Trustee or any Depositary hereunder, shall be transmitted to the Trustee and be applied by the Trustee as and in the order of priority provided in Sections 5.01, 5.02 and 5.06; provided, however, that (A) if amounts in the Debt Service Fund are insufficient to pay, when due, all interest on, principal of, and Mandatory Sinking Account Payments on all Bonds then Outstanding, all Parity Payment Agreement Payments pursuant to Parity Payment Agreements then Outstanding and all Credit Agreement Reimbursement Payments due and payable pursuant to Credit Agreements then Outstanding, then such amounts in the Debt Service Fund shall be used first to pay all installments of interest then due and owing without preference or priority of any such installment of interest over any other installment of interest, then to pay installments of principal and Mandatory Sinking Account Payments then due and owing, without preference or priority of any installment of principal or Mandatory Sinking Account Payments over any other such installment, then to pay all Credit Agreement Reimbursement Payments then due and payable, and then to pay Parity Payment Agreement Payments then due and owing, without preference or priority of any Parity Payment Agreement Payment over any other such Parity Payment Agreement Payment; and (B) amounts in Construction Accounts may be used for the purposes for which such Construction Accounts were created and funded if the Trustee

determines, in accordance with Section 8.03(A), that such use is in the best interests of the Bondholders and the Credit Providers.

If any installment of interest, principal or Redemption Price is only partially paid, such payment shall occur only upon presentation of the several Bonds and the recording thereon of a record of such partial payment.

SECTION 7.03 Representation of Bondowners by Trustee. In case one or more of the Events of Default shall happen, then and in every such case the Owner of any Bond at the time Outstanding shall be entitled to proceed to protect and enforce the rights vested in such Owner by this Indenture by such appropriate judicial proceeding as such Owner shall deem most effectual to protect and enforce any such right, either by suit in equity or by action at law, whether for the specific performance of any covenant or agreement contained in this Indenture, or in aid of the exercise of any power granted in this Indenture, or to enforce any other legal or equitable right vested in the Owners of Bonds by this Indenture or by law; provided, however, that no such Bondowner shall have the right to institute any such judicial proceeding pursuant to this Section unless (A) such Owner shall have previously given to the Trustee notice of the occurrence of an Event of Default hereunder; (B) the Owners of at least a majority in Accreted Value of the Bonds then Outstanding shall have made request to the Trustee to exercise the powers herein granted or to institute such action, suit or proceeding in its own name; (C) such Owner or said Owners shall have tendered to the Trustee reasonable indemnity against the costs, expenses and liabilities to be incurred in compliance with such request; and (D) the Trustee shall have refused or omitted to comply with such request for a period of sixty days after such request shall have been received by, and said tender of indemnity shall have been made to, the Trustee. The provisions of this Indenture shall constitute a contract with the Owners of the Bonds, and such contract and duties of the Authority and of the Authority members, officers and employees thereof shall be enforceable by any Bondowner by mandamus or other appropriate suit, action or proceeding in any court of competent jurisdiction.

Nothing in this Section shall affect or impair the right of any Owner to enforce the payment of principal of and interest on such Owner's Bonds or the obligation of the Authority to pay the principal of and interest on each such Bond at the time and place specified in such Bond.

SECTION 7.04 Nonwaiver. Nothing in this Article or in any other provision of this Indenture, or in the Bonds, shall affect or impair the obligation of the Authority, which is absolute and unconditional, to pay the principal of and the interest (and premium, if any) on the Bonds to the respective Owners of the Bonds at the respective dates of maturity, or upon call for redemption, as herein provided, but only out of the Revenues herein pledged for such payments, or affect or impair the right of action, which is also absolute and unconditional, of such Owners to institute suit to enforce such payment by virtue of the contract embodied in the Bonds.

A waiver of any default or breach of duty or contract by any Bondowner shall not affect any subsequent default or breach of duty or contract, or impair any rights or remedies on the subsequent default or breach. No delay or omission of the Trustee or of any Owner of any of the Bonds to exercise any right or power arising upon the happening of any Event of Default shall impair any such right or power or shall be construed to be a waiver of any such Event of Default or an acquiescence therein, and every power and remedy given by the Act or this Article to the Trustee or to the Owners of Bonds or any Credit Provider may be exercised from time to time and as often as shall be deemed expedient by the Trustee or the Owners of Bonds or any such Credit Provider.

If a suit, action or proceeding to enforce any right or exercise any remedy is abandoned or determined adversely to the Bondowners, the Authority, the Trustee and the Bondowners and each

Credit Provider shall be restored to their former positions, rights and remedies as if such suit, action or proceeding had not been brought or taken.

SECTION 7.05 Actions by Trustee as Attorney-in-Fact. Any suit, action or proceeding which any Owner of Bonds shall have the right to bring to enforce any right or remedy hereunder may be brought by the Trustee for the equal benefit and protection of all Owners of Bonds similarly situated (notwithstanding any conditions upon the bringing of any such action, suit or proceeding set forth in Section 7.03) and the Trustee is hereby appointed (and the successive respective Owners of the Bonds issued hereunder, by taking and holding the same, shall be conclusively deemed so to have appointed it) the true and lawful attorney-in-fact of the respective Owners of the Bonds for the purpose of bringing any such suit, action, or proceeding and to do and perform any and all acts and things for and on behalf of the respective Owners of the Bonds as a class or classes, as may be necessary or advisable in the opinion of the Trustee as such attorney-in-fact.

Except as may be set forth in a Supplemental Indenture in accordance with Section 11.15, anything in this Indenture to the contrary notwithstanding, the Owners of a majority in Accreted Value of the Bonds at any time Outstanding shall have the right, by an instrument or concurrent instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all remedial proceedings to be taken by the Trustee hereunder, provided that such direction shall be in accordance with law and the provisions of this Indenture.

SECTION 7.06 <u>Remedies Not Exclusive</u>. No remedy herein conferred upon or reserved to the Trustee or to the Owners of Bonds or to any Credit Provider is intended to be exclusive of any other remedy. Every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing, at law or in equity or by statute or otherwise and may be exercised without exhausting and without regard to any other remedy conferred by the Act or any other law.

## ARTICLE VIII

#### THE FIDUCIARIES

SECTION 8.01 <u>Appointment of Trustee</u>. Bank of Guam is hereby appointed as Trustee under this Indenture.

SECTION 8.02 <u>Appointment of Co-Trustee</u>. U.S. Bank Trust Company, National Association is hereby appointed as Co-Trustee under this Indenture.

SECTION 8.03 <u>Duties, Immunities and Liabilities of Fiduciaries</u>. (A) The Trustee and the Co-Trustee shall, prior to an Event of Default, and after the curing of all Events of Default which may have occurred, perform such duties and only such duties as are specifically set forth in this Indenture for each to perform. The Trustee and the Co-Trustee shall, during the existence of any Event of Default which has not been cured, exercise such of the rights and powers vested in them by this Indenture, and use the same degree of care and skill in their exercise, as a prudent person would exercise or use under the circumstances in the conduct of such person's own affairs. The Authority, the Trustee, the Co-Trustee and each Depositary shall establish such accounting, notice and other relationships as are necessary to provide for the operation of the accounts created under or pursuant to Article V, and the handling of the Revenues credited thereto in accordance herewith.

(B) Each Depositary, Registrar and Paying Agent shall, prior to an Event of Default, and after the curing of all Events of Default which may have occurred, perform such duties and only such

duties as are specifically set forth in this Indenture, and shall, during the existence of any Event of Default (which has not been cured), follow the directions of the Trustee with respect to any of the Funds and Accounts held under this Indenture.

- shall have occurred and then be continuing, and shall remove a Fiduciary if at any time requested to do so by an instrument or concurrent instruments in writing signed by the Owners of not less than a majority in Accreted Value of the Bonds then Outstanding (or their attorneys duly authorized in writing) or if at any time such Fiduciary shall cease to be eligible in accordance with subsection (F) of this Section, or shall become incapable of acting, or shall be adjudged a bankrupt or insolvent, or a receiver of such Fiduciary or its property shall be appointed, or any public officer shall take control or charge of such Fiduciary or its property or affairs for the purpose of rehabilitation, conservation or liquidation; in each case by giving notice of such removal to such Fiduciary and thereupon shall appoint a successor Trustee, Co-Trustee, Depositary, Registrar or Paying Agent, as the case may be, by an instrument in writing. Any Supplemental Indenture or Credit Agreement entered into in connection with Bonds may provide that the Credit Provider with respect thereto has the right to direct the Authority to remove any Fiduciary and appoint a successor under the circumstances specified therein.
- (D) Any Fiduciary may at any time resign by giving notice of such resignation to the Authority, the other Fiduciaries and each Credit Provider. Subject to the provisions of any Supplemental Indenture or Credit Agreement, upon receiving such notice of resignation, the Authority shall promptly appoint a successor Trustee, Co-Trustee, Depositary, Registrar or Paying Agent, as the case may be, by an instrument in writing.
- Any such removal or resignation and appointment of a successor Fiduciary shall become effective upon acceptance of appointment by the successor. Promptly upon such acceptance, the Authority shall give notice thereof to each Fiduciary, to each affected Credit Provider and to the affected Bondowners by mail in the manner provided by Section 4.03. If no successor shall have been appointed and have accepted appointment within forty-five (45) days after giving notice of removal or notice of resignation as aforesaid, the resigning Fiduciary or any Bondowner (on behalf of such Bondowner and all other Bondowners) or any Credit Provider may petition any court of competent jurisdiction for the appointment of a successor, and such court may thereupon, after such notice (if any) as it may deem proper, appoint such successor. Any such successor appointed under this Indenture shall signify its acceptance of such appointment by executing and delivering to the Authority and to its predecessor a written acceptance thereof (which may be a Supplemental Indenture), and thereupon such successor, without any further act, deed or conveyance, shall become vested with all the moneys, estates, properties, rights, powers, trusts, duties and obligations of such predecessor, with like effect as if originally named herein; but, nevertheless, at the Request of the Authority or the request of the successor, such predecessor shall execute and deliver any and all instruments of conveyance or further assurance and do such other things as may reasonably be required for more fully and certainly vesting in and confirming to such successor all the right, title and interest of such predecessor in and to any property held by it under this Indenture and shall pay over, transfer, assign and deliver to the successor any money or other property subject to the trusts and conditions herein set forth. Upon request of the successor, the Authority shall execute and deliver any and all instruments as may be reasonably required for more fully and certainly vesting in and confirming to such successor all such moneys, estates, properties, rights, powers, trusts, duties and obligations.
- (F) (1) The Trustee and the Co-Trustee appointed under the provisions of this Section shall meet the requirements of any Supplemental Indenture and any Credit Agreement and shall each be a trust company or bank having the powers of a trust company doing business and having a corporate trust office in any State or territory and having a combined capital and surplus of at least Fifty

Million Dollars (\$50,000,000), and subject to supervision or examination by federal, state or territorial authority. The Co-Trustee shall have a corporate trust office in one of the contiguous 48 States and have a combined capital and surplus of at least One Hundred Million Dollars (\$100,000,000). Either the Trustee or the Co-Trustee shall have a corporate trust office in Guam. Any bank or trust company that meets the requirements of both of the preceding two sentences may serve as both Trustee and Co-Trustee. If a bank or trust company publishes a report of condition at least annually, pursuant to law or to the requirements of any supervising or examining authority above referred to, then for the purpose of this Section the combined capital and surplus of such bank or trust company shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. In case at any time the Trustee or the Co-Trustee shall cease to be eligible in accordance with the provisions of this subsection (F)(1), it shall resign immediately in the manner and with the effect specified in this Section. The Trustee and Co-Trustee may be appointed and act as a Depositary, Registrar or Paying Agent hereunder.

- (2) Each Registrar and Paying Agent appointed under the provisions of this Section shall meet the requirements of any Supplemental Indenture and any Credit Agreement and shall be a trust company or bank having trust powers doing business and having a corporate trust office in any State of the United States and subject to supervision or examination by federal or state authority. In case at any time any Registrar or any Paying Agent shall cease to be eligible in accordance with the provisions of this subsection (F)(2), it shall resign immediately in the manner and with the effect specified in this Section.
- (3) Each Depositary appointed under the provisions of this Section shall be a trust company or commercial bank having the powers of a trust company doing business and having a trust office on Guam, having a combined capital and surplus of at least Ten Million Dollars (\$10,000,000), and subject to supervision or examination by federal or territorial authority. If such bank or trust company publishes a report of condition at least annually, pursuant to law or to the requirements of any supervising or examining authority above referred to, then for the purpose of this Section the combined capital and surplus of such bank or trust company shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. In case at any time the Depositary shall cease to be eligible in accordance with the provisions of this subsection (F)(3), the Depositary shall resign immediately in the manner and with the effect specified in this Section.
- (G) Any company into which any Fiduciary may be merged or converted or with which it may be consolidated or any company resulting from any merger, conversion or consolidation to which it shall be a party or any company to which such Fiduciary may sell or transfer all or substantially all of its corporate trust business, provided such company shall be eligible under subsection (F) of this Section, shall be the successor to such Fiduciary without the execution or filing of any paper or any further act, anything herein to the contrary notwithstanding. Any such successor shall give notice of such merger, conversion or consolidation to each other Fiduciary and to the Authority.
- SECTION 8.04 <u>Compensation</u>. Subject to the terms of separate contracts with Fiduciaries, the Authority shall pay to each Fiduciary from time to time reasonable compensation for all services rendered under this Indenture, and also all reasonable expenses, charges, fees of counsel, accountants and consultants and other disbursements, including those of their attorneys, agents and employees, incurred in good faith in and about the performance of their powers and duties under this Indenture. The Authority further agrees, to the extent permitted by law, to indemnify and save each Fiduciary harmless against any losses, costs, expenses, claims and liabilities (including without limitation those of its attorneys, agents and receivers) which they may incur in the exercise and performance of their respective powers, functions and duties under this Indenture, which are not due to their own respective

gross negligence or willful misconduct. Such indemnity shall survive the resignation or removal of each Fiduciary.

SECTION 8.05 Liability of Fiduciaries. The recitals of facts herein and in the Bonds contained shall be taken as statements of the Authority, and no Fiduciary assumes any responsibility or liability for the correctness of the same, or makes any representations as to the validity or sufficiency of this Indenture, of the Bonds, of any Credit Facility or of the pledge and assignment of Revenues herein or any information or statements in any offering memorandum or other disclosure material prepared or distributed in connection with the issuance of Bonds or shall incur any responsibility or liability in respect thereof, other than in connection with the duties or obligations herein or in the Bonds assigned to or imposed upon them, respectively. Each Registrar shall, however, be responsible for its representations contained in its certificate of authentication and registration on the Bonds. No Fiduciary shall be liable in connection with the performance of its respective duties hereunder, except for its own respective gross negligence or willful misconduct. Any Fiduciary may become the owner of the Bonds with the same rights it would have if it were not a Fiduciary, and, to the extent permitted by law, may act as depositary for and permit any of their officers or directors to act as a member of, or in any other capacity with respect to, any committee formed to protect the rights of Bondowners, whether or not such committee shall represent the Owners of a majority in Accreted Value of the Bonds then Outstanding. No Fiduciary shall be under any responsibility or duty with respect to the application of any moneys paid to any other Fiduciary or the acts or omissions of any other Fiduciary. No Fiduciary shall be under any obligation or duty to perform any act which would require it to expend or risk its own moneys or otherwise incur any liability or to institute or defend any action or suit in respect of this Indenture or the Bonds, unless it is in its judgment adequately indemnified. No Fiduciary shall be deemed to have knowledge of an Event of Default hereunder unless it has received actual knowledge thereof at its Principal Office, except, in the case of the Trustee, default in the payment of any amounts due on the Bonds on the due date therefor.

SECTION 8.06 Right of Fiduciaries to Rely on Documents. Any Fiduciary shall be protected in acting upon any notice, resolution, request, consent, order, certificate, requisition, statement, report, opinion, bond or other paper or document believed to be genuine and to have been signed or presented by the proper party or parties. Any Fiduciary may consult with counsel, who may be counsel of or to the Authority, with regard to legal questions, and the opinion of such counsel shall be full and complete authorization and protection in respect of any action taken or suffered by it hereunder in good faith and in accordance therewith.

Whenever in the administration of the trusts imposed upon it by this Indenture a Fiduciary shall deem it necessary or desirable that a matter be proved or established prior to taking or suffering any action hereunder, such matter (unless other evidence in respect thereof be herein specifically prescribed) may be deemed to be conclusively proved and established by a Certificate of the Authority, and such Certificate shall be full warrant to such Fiduciary for any action taken or suffered in good faith under the provisions of this Indenture in reliance upon such Certificate, but in its discretion such Fiduciary may, in lieu thereof, accept other evidence of such matter or may require such additional evidence as to it may seem reasonable.

SECTION 8.07 <u>Preservation and Inspection of Documents</u>. All documents received by any Fiduciary under the provisions of this Indenture shall be retained in its possession and shall be subject at all reasonable times to the inspection of the Authority and any Bondowner, and their agents and representatives duly authorized in writing, at reasonable hours and under reasonable conditions.

#### ARTICLE IX

## MODIFICATION OR AMENDMENT OF THE INDENTURE

SECTION 9.01 Amendments Permitted. (A)(1) This Indenture and the rights and obligations of the Authority and of the Owners of the Bonds and of the Trustee and Co-Trustee may be modified or amended at any time by a Supplemental Indenture which shall become binding when the consents of the Owners of [at least sixty percent (60%) in Accreted Value of the Bonds then Outstanding]/[a majority in aggregate Principal amount of the Outstanding Bonds], exclusive of Bonds disqualified as provided in Section 9.03 hereof; provided that if such modification or amendment will, by its terms, not take effect so long as any bonds of any particular maturity or Series remain Outstanding, the consent of the Owners of Bonds of such maturity or Series shall not be required and such Bonds shall not be deemed to be Outstanding for the purpose of any calculation of Outstanding Bonds under this Section; and provided further that the consent of a Credit Provider for any Bond shall be deemed to be the consent of the Owner of such Bond if specified in the Supplemental Indenture pursuant to which such Credit Provider is designated as providing a Credit Facility for such Bond.

- (2) No such modification or amendment shall (a) extend the fixed maturities of the Bonds, or extend the time for making any Mandatory Sinking Account Payments, or reduce the rate of interest thereon, or extend the time of payment of interest, or reduce the amount of principal thereof, or reduce any premium payable on the redemption thereof, without the consent of the Owner of each Bond so affected, (b) reduce the aforesaid percentage of Owners of Bonds whose consent is required for the execution of any amendment or modification of this Indenture or permit the creation of any lien on the Revenues prior to or on a parity with the lien created by this Indenture or deprive the Owners of the Bonds of the lien created by this Indenture upon such Revenues, without in each case the consent of the Owners of all of the Bonds then Outstanding.
- (3) No such modification or amendment shall modify any of the rights or obligations of any Fiduciary without its consent thereto.
- (B) This Indenture and the rights and obligations of the Authority and of the Owners of the Bonds may also be modified or amended at any time by a Supplemental Indenture which shall become binding upon adoption, without the consent of any Bondowners, but only to the extent permitted by law and only for any one or more of the following purposes:
- (1) to add to the covenants and agreements of the Authority in this Indenture contained other covenants and agreements thereafter to be observed or to surrender any right or power herein reserved to or conferred upon the Authority;
- (2) to cure, correct or supplement any ambiguous or defective provision contained in this Indenture or in regard to questions arising under this Indenture, as the Authority may deem necessary or desirable and not inconsistent with this Indenture, and which shall not materially adversely affect the interests of the Owners of the Bonds or any Credit Provider;
- (3) to provide for the issuance of Additional Bonds, and to provide the terms and conditions under which such Additional Bonds may be issued, subject to and in accordance with the provisions of Article III;
- (4) to provide for any other matters for which a Supplemental Indenture is expressly permitted or required hereunder;

- (5) to make any other amendment or modification which shall not materially adversely affect the interests of the Owners of the Bonds or any Credit Provider;
- (6) to grant to or confer upon the Trustee for the benefit of the Owners any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Owners or the Trustee that are not contrary to or inconsistent with this Indenture as then in effect or to subject to the pledge and lien of this Indenture additional revenues, properties or collateral;
- (7) to modify, alter, supplement or amend this Trust Indenture in such manner as shall permit the qualification of this Trust Indenture, if required, under the Trust Indenture Act of 1939 or, the Securities Act of 1933, as from time to time amended, or any similar federal statute hereafter in effect; or
- (8) to amend, modify, alter or replace the Letter of Representations as provided in Section 2.08 or other provisions relating to Book Entry Bonds.
- (C) Any Supplemental Indenture providing for the issuance of a Series of Bonds may require, in addition to or in lieu of any consents required by the foregoing provisions of this Section 9.01, the consent of any Credit Provider for such Bonds in order for any amendment hereto affecting such Bonds to be effective, and may set forth appropriate procedures for obtaining and evidencing such consent.
- SECTION 9.02 Procedure for Amendment with Consent of Bondowners. The Authority may at any time adopt a Supplemental Indenture amending the provisions of the Bonds or of this Indenture or any Supplemental Indenture, to the extent that such amendment is permitted by Section 9.01(A)(1), to take effect when and as provided in this Section. A copy of such Supplemental Indenture, together with a request to Bondowners for their consent thereto, shall be mailed by the Authority to each Owner of Bonds, but failure to receive any such copies of such Supplemental Indenture and request shall not affect the validity of the Supplemental Indenture when assented to as in this Section provided.

Such Supplemental Indenture shall not become effective unless there shall be filed with the Trustee the consents of the Owners of sixty percent (60%) in Accreted Value of the Bonds then Outstanding (exclusive of Bonds disqualified as provided in Section 9.03) and a notice shall have been published as hereinafter in this Section provided. Each such consent shall be effective only if accompanied by proof of ownership of the Bonds for which such consent is given, which proof shall be such as is permitted by Section 11.08. Any such consent shall be binding upon the Owner of the Bonds giving such consent and on any subsequent Owner (whether or not such subsequent Owner has notice thereof) unless such consent is revoked in writing by the Owner giving such consent or a subsequent Owner by filing such revocation with the Trustee prior to the date when the notice hereinafter in this Section provided for has been published.

After the Owners of the required percentage of Bonds shall have filed their consents to the Supplemental Indenture, the Authority shall mail a notice to the Bondowners in the manner hereinbefore provided in this Section for the mailing of the Supplemental Indenture and publication of the notice of adoption thereof, stating in substance that the Supplemental Indenture has been consented to by the Owners of the required percentage of Bonds and will be effective as provided in this Section (but failure to receive copies of said notice shall not affect the validity of the Supplemental Indenture or consents thereto). A record, consisting of the papers required by this Section to be filed with the Trustee, shall be proof of the matters therein stated until the contrary is proved.

In lieu of obtaining any demand, request, direction, consent or waiver in writing, the Trustee may call and hold a meeting of the Bondowners upon such notice and in accordance with such rules and regulations as the Trustee considers fair and reasonable for the purpose of obtaining any such action.

SECTION 9.03 <u>Disqualified Bonds</u>. Bonds owned or held by or for the account of the Authority (but excluding Bonds held in any pension or retirement fund) shall not be deemed Outstanding for the purpose of any consent or other action or any calculation of Outstanding Bonds provided for in this Article or Indenture, and shall not be entitled to consent to or take any other action provided for in this Article or Indenture.

The Authority may adopt appropriate regulations to require each Bondowner, before his consent provided for in this Article shall be deemed effective, to reveal if the Bonds as to which such consent is given are disqualified as provided in this Section.

SECTION 9.04 <u>Effect of Supplemental Indenture</u>. From and after the time any Supplemental Indenture becomes effective pursuant to this Article, this Indenture shall be deemed to be modified and amended in accordance therewith, and the respective rights, duties and obligations under this Indenture of the Authority, the Trustee, the Co-Trustee and all Owners of Bonds Outstanding shall thereafter be determined, exercised and enforced hereunder subject in all respects to such modification and amendment, and all the terms and conditions of any such Supplemental Indenture shall be deemed to be part of the terms and conditions of this Indenture for any and all purposes.

Amendments. The Authority may determine that Bonds issued and delivered before the effective date of any action taken as provided in this Article shall bear a notation, by endorsement or otherwise, in form approved by the Authority, as to such action. In that case, upon demand of the Owner of any Bond Outstanding at such effective date and presentation of his Bond for that purpose at the office of the Authority or at such other office as the Authority may select and designate for that purpose, a suitable notation shall be made on such Bond. The Authority may determine that new Bonds, so modified as in the opinion of the Authority is necessary to conform to such action, shall be prepared, executed and delivered. In that case, upon demand of the Owner of any Bonds then Outstanding, such new Bonds shall be exchanged at the Principal Office of the applicable Registrar, without cost to such Owner, for Bonds of the same character then Outstanding, upon surrender of such Bonds.

SECTION 9.06 <u>Amendatory Endorsement of Bonds</u>. The provisions of this Article shall not prevent any Bondowner from accepting any amendment as to the particular Bonds held by such Bondholder, provided that due notification thereof is made on such Bonds.

SECTION 9.07 <u>Credit Provider Consent.</u> Nothing in this Article or in this Indenture shall affect any provision of any Credit Agreement or Supplemental Indenture requiring the Authority to obtain the consent of the Credit Provider or to satisfy any other conditions before amending or supplementing this Indenture or any Bond.

# ARTICLE X

## **DEFEASANCE**

SECTION 10.01 <u>Discharge of Indenture</u>. If the Authority shall pay and discharge the entire indebtedness on all Bonds Outstanding in any one or more of the following ways—

- (A) by well and truly paying or causing to be paid the principal of (including redemption premiums, if any) and interest on all Bonds Outstanding, as and when the same become due and payable (but this clause shall not include Bonds the principal of or interest on which has been paid by a Credit Provider until said principal and interest shall have been paid by the Authority); or
- (B) by depositing with the Co-Trustee, in trust, at or before maturity, money which, together with the amounts then on deposit in the Debt Service Fund and the Bond Reserve Fund, is fully sufficient to pay or redeem all Bonds Outstanding, including all principal, interest and redemption premiums, if any; or
  - (C) by delivering to the Co-Trustee, for cancellation by it, all Bonds Outstanding; or
- (D) by depositing with the Co-Trustee, in trust, non-callable Federal Securities in such amount which, in the determination of an Independent Certified Public Accountant, who shall certify such determination to the Co-Trustee and, if so provided in a Supplemental Indenture, any Credit Provider, shall, together with the income or increment to accrue thereon and any other moneys of the Authority made available for such purpose, be fully sufficient to pay and discharge the indebtedness on all Bonds (including all principal, interest and redemption premiums, if any) at or before their respective maturity dates;

and if the Authority shall also pay or cause to be paid all other sums payable hereunder by the Authority (including all Parity Payment Agreement Payments and any Termination Payments payable in connection with a termination of a Parity Payment Agreement and any Credit Agreement Payments then due and payable) and deliver or have delivered to the Trustee, the Co-Trustee and each Credit Provider an Opinion of Counsel to the effect that upon satisfaction of the other requirements of this Section 10.01 and any Supplemental Indenture all obligations of the Authority under this Indenture have ceased, terminated and been completely discharged, then and in that case, at the election of the Authority (evidenced by a Certificate of the Authority signifying its intention to pay and discharge all such indebtedness and that this Indenture and all other obligations of the Authority under this Indenture shall cease and terminate, which shall be filed with the Trustee and the Co-Trustee), and notwithstanding that any Bonds shall not have been surrendered for payment, the pledge of the Revenues and other funds provided for in this Indenture and all other obligations of the Authority under this Indenture shall cease, terminate and be completely discharged, and the Owners of the Bonds not so surrendered and paid shall thereafter be entitled to payment only out of the money or Federal Securities deposited with the Co-Trustee as aforesaid for their payment; subject, however, to the provisions of Section 10.03. The discharge of the obligations of the Authority under this Indenture shall be without prejudice to the rights of the Co-Trustee to charge for and be reimbursed by the Authority for any expenditures which it may thereafter incur in connection herewith.

The Authority may at any time surrender to the Co-Trustee for cancellation by it any Bonds previously issued and delivered, which the Authority may have acquired in any manner whatsoever, and such Bonds, upon such surrender and cancellation, shall be deemed to be paid and retired.

SECTION 10.02 <u>Discharge of Liability on Bonds</u>. Upon the deposit with the Co-Trustee, in trust, at or before maturity, of money or Federal Securities in the necessary amount to pay or redeem Outstanding Bonds (whether upon or prior to their maturity or the redemption date of such Bonds), provided that if such Bonds are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as in Article IV provided or provision satisfactory to the Co-Trustee shall have been made for the giving of such notice, then all liability of the Authority in respect of such Bonds shall cease, determine and be completely discharged and the Owners thereof shall thereafter be

entitled only to payment out of the money or Federal Securities deposited with the Trustee as aforesaid for their payment, subject, however, to the provisions of Section 10.03.

# SECTION 10.03 Payment of Bonds after Discharge of Indenture.

Notwithstanding any provisions of this Indenture, any moneys deposited with the Co-Trustee in trust for the payment of the principal of, or interest or premium on, any Bonds and remaining unclaimed for two years after the principal of all the Outstanding Bonds has become due and payable (whether at maturity or upon call for redemption or by declaration as provided in this Indenture) shall then be repaid to the Authority upon its Request, and the Owners of such Bonds shall thereafter be entitled to look only to the Authority for payment thereof, and all liability of the Co-Trustee with respect to such moneys shall thereupon cease; provided, however, that before the repayment of such moneys to the Authority as aforesaid, the Co-Trustee may (at the cost of the Authority) first publish at least once in a Financial Newspaper or Journal and in a newspaper of general circulation in Guam a notice, in such form as may be deemed appropriate by the Co-Trustee, with respect to the Bonds so payable and not presented and with respect to the provisions relating to the repayment to the Authority of the moneys held for the payment thereof. In the event of the repayment of any such moneys to the Authority as aforesaid, the Owners of the Bonds in respect of which such moneys were deposited shall thereafter be deemed to be general creditors of the Authority for amounts equivalent to the respective amounts deposited for the payment of such Bonds and so repaid to the Authority (without interest thereon).

#### ARTICLE XI

#### **MISCELLANEOUS**

SECTION 11.01 <u>Liability of Authority Limited to Revenues</u>. Notwithstanding anything in this Indenture contained, the Authority shall not be required to advance any moneys derived from any source of income other than the Revenues, for the payment of the principal of or interest on the Bonds, Payment Agreement Payments, Termination Payments and Credit Agreement Payments, for the operation and maintenance of the System, for the performance of any covenants herein contained or for the payment of any obligations hereunder, including indemnification. The Authority may, however, advance funds for any such purpose, provided that such funds are derived from a source legally available for such purpose and may be used by the Authority for such purpose without incurring indebtedness.

The Bonds shall be limited obligations of the Authority, payable solely from and secured by a pledge of the Revenues as provided in this Indenture. The Bonds shall not be a legal or equitable pledge, charge, lien or encumbrance upon any property of the Authority or upon any of its income, receipts or revenues except the Revenues pledged to the payment thereof as provided in this Indenture.

Neither the Government of Guam (the "Government") nor any political subdivision thereof is obligated to pay the principal of, Redemption Price, if applicable, or interest on the Bonds, except from Revenues, and neither the Authority, the Government nor any political subdivision thereof has pledged its faith or credit to the payment of the principal of, redemption price, if applicable, or interest on the Bonds.

SECTION 11.02 Successor Is Deemed Included in All References to Predecessor. Whenever in this Indenture either the Authority or any Fiduciary is named or referred to, such reference shall be deemed to include the successors or assigns thereof, and all the covenants and agreements in this Indenture contained by or on behalf of the Authority or any Fiduciary shall bind and inure to the benefit of the respective successors and assigns thereof whether so expressed or not.

SECTION 11.03 <u>Limitation of Rights to Parties and Bondowners</u>. Nothing in this Indenture or in the Bonds expressed or implied is intended or shall be construed to give to any person, other than the Authority, the Fiduciaries and the Owners of the Bonds issued hereunder and to the extent set forth herein or in a Supplemental Indenture any Credit Provider, any legal or equitable right, remedy or claim under or in respect of this Indenture or any covenant, condition or provision therein or herein contained; and all such covenants, conditions and provisions are and shall be held to be for the sole and exclusive benefit of the Authority, the Fiduciaries and the Owners of the Bonds issued hereunder and any such Credit Provider.

SECTION 11.04 <u>Waiver of Notice</u>. Whenever in this Indenture the giving of notice by mail or otherwise is required, the giving of such notice may be waived in writing by the person entitled to receive such notice and in any such case the giving or receipt of such notice shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

SECTION 11.05 <u>Destruction of Bonds</u>. Whenever in this Indenture provision is made for the cancellation by the Co-Trustee and the delivery to the Authority of any Bonds, the Co-Trustee may destroy such Bonds (in the presence of an officer of the Authority, if the Authority shall so require), and deliver a certificate of such destruction to the Authority, unless the Authority shall, by Request of the Authority, request the Co-Trustee to instead cancel and deliver said Bonds to the Authority.

SECTION 11.06 Severability of Invalid Provisions. If any one or more of the provisions contained in this Indenture or in the Bonds shall for any reason be held to be invalid, illegal or unenforceable in any respect, then such provision or provisions shall be deemed severable from the remaining provisions contained in this Indenture and such invalidity, illegality or unenforceability shall not affect any other provision of this Indenture, and this Indenture shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein. The Authority hereby declares that it would have adopted this Indenture and each and every other Section, paragraph, sentence, clause or phrase hereof and authorized the issuance of the Bonds pursuant thereto irrespective of the fact that any one or more Sections, paragraphs, sentences, clauses or phrases of this Indenture may be held illegal, invalid or unenforceable. If, by reason of the judgment of any court, the Trustee or the Co-Trustee or any successor Trustee or Co-Trustee is rendered unable to perform its duties hereunder, and if no successor Trustee or Co-Trustee be then appointed, all such duties and all of the rights and powers of the Trustee or the Co-Trustee hereunder, as applicable, shall be assumed by and vest in the Chief Financial Officer of the Authority in trust for the benefit of the Bondowners.

SECTION 11.07 <u>Notice to Authority, Trustee and Co-Trustee</u>. Any notice to or demand upon the Authority, the Trustee, the Co-Trustee, any Depositary or any Registrar shall be deemed to have been sufficiently given or served for all purposes by being deposited, postage prepaid, in a post office letter box, addressed to the applicable address set forth below, or at such other address as may have been specified by the Supplemental Indenture appointing such party or filed in writing by such party with each other party.

Any notice to or demand upon the Authority may be served or presented, and such demand may be made, at the office of the principal administrative office of the Authority, which at the date of adoption of this Indenture is: Guam Waterworks Authority, 578 N. Marine Corps Drive, Tamuning, Guam 96913, Attention: Chief Financial Officer.

Any notice to or demand upon the Trustee or the Depositary may be served or presented, and such demand may be made, at the Principal Office of the Trustee, which at the date of adoption of

this Indenture is: Bank of Guam, 111 Chalan Santo Papa, 2nd Floor, Agana, Guam 96910, Attention: Corporate Trust Department.

Any notice to or demand upon the Co-Trustee may be served or presented, and such demand may be made, at the Principal Office of the Co-Trustee, which at the date of adoption of this Indenture is: U.S. Bank Trust Company, National Association, 633 West Fifth Street, 24th Floor, Los Angeles, CA 90071, Attention: Corporate Trust Services; provided, however, that for purposes of payment, transfer, registration and exchange of Bonds, presentation shall be made at the Principal Office of the Co-Trustee located at 60 Livingston Avenue, St. Paul, MN 55107, Attention: Corporate Trust Operations.

SECTION 11.08 Evidence of Rights of Bondowners. Any request, consent or other instrument required by this Indenture to be signed and executed by Bondowners may be in any number of concurrent writings of substantially similar tenor and may be signed or executed by such Bondowners in person or by an agent or agents duly appointed in writing. Proof of the execution of any such request, consent or other instrument or of a writing appointing any such agent shall be sufficient for any purpose of this Indenture and shall be conclusive in favor of the Trustee, the Co-Trustee and of the Authority if made in the manner provided in this Section.

The fact and date of the execution by any person of any such request, consent or other instrument or writing may be proved in any manner reasonably acceptable to the Trustee or the Co-Trustee, as applicable.

The ownership of Bonds shall be proved by the Bond registration books maintained pursuant to Section 2.06.

Any request, consent, vote or declaration of the Owner of any Bond shall bind every future Owner of the same Bond and the Owner of every Bond issued in exchange therefor or in lieu thereof, in respect of anything done or suffered to be done by the Trustee, the Co-Trustee or the Authority in pursuance of such request, consent, vote or declaration.

SECTION 11.09 <u>Article and Section Headings and References</u>. The headings or titles of the several Articles and Sections hereof, and any table of contents appended to copies hereof, shall be solely for convenience of reference and shall not affect the meaning, construction or effect of this Indenture.

All references herein to "Articles," "Sections" and other subdivisions are to the corresponding Articles, Sections or subdivisions of this Indenture; and the words "herein," "hereof," "hereunder" and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or subdivision hereof.

SECTION 11.10 Funds and Accounts. Any fund required by this Indenture to be established and maintained by the Authority, the Trustee, the Co-Trustee or any Depositary may be established and maintained in the accounting records of the Authority, the Trustee, the Co-Trustee or the Depositary, as applicable, either as a fund or an account, and may, for the purposes of such records, any audits thereof and any reports or statements with respect thereto, be treated either as a fund or as an account; but all such records with respect to all such funds shall at all times be maintained in accordance with generally accepted accounting practices (and as to the Trustee, the Co-Trustee and any Depositary, sound industry practice) and with due regard for the protection of the security of the Bonds and the rights of every Owner thereof.

- SECTION 11.11 Saturdays, Sundays and Legal Holidays. If any party hereto is required to perform, pursuant to a provision of this Indenture, any act on a date which falls on a Saturday, Sunday or legal holiday, the party required to perform such act shall be deemed to have performed it in a timely manner, and in conformance with such provision, if it shall perform such act on the next succeeding Business Day. Any payments or transfers which would otherwise become due on any day which is not a Business Day shall become due or shall be made on the next succeeding Business Day.
- SECTION 11.12 <u>Waiver of Personal Liability</u>. No Board member, officer, agent or employee of the Authority shall be individually or personally liable for the payment of the principal of or interest on the Bonds; but nothing herein contained shall relieve any such Board member, officer, agent or employee from the performance of any official duty provided by law.
- SECTION 11.13 Governing Law. This Indenture and any Supplemental Indentures shall be construed and governed in accordance with the laws of the Government of Guam, provided, however, that the administration of the trusts imposed upon the Trustee and the Co-Trustee by the Indenture and the rights and duties of the Trustee and Co-Trustee hereunder shall be governed by, and construed in accordance with, the laws of the jurisdiction in which the Trustee or the Co-Trustee, as applicable, has its corporate trust office.
- SECTION 11.14 Execution in Several Counterparts. This Indenture may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original; and all such counterparts, or as many of them as the Authority, the Trustee and the Co-Trustee shall preserve undestroyed, shall together constitute but one and the same instrument.
- SECTION 11.15 <u>Credit Agreements and Credit Providers.</u> Anything herein to the contrary notwithstanding, a Supplemental Indenture providing for the issuance of a Series of Bonds for which a Credit Facility provides supplemental credit support may, so long as such Credit Facility shall be Outstanding or any Credit Agreement Payments are due and payable with respect thereto, provide additional terms, provisions and limitations not inconsistent with the provisions hereof for the protection and benefit of the related Credit Provider.
- SECTION 11.16 Indenture as Supplement to and Amendment of 2005 Indenture.

  (A) Twelfth Supplemental Indenture. In accordance with the 2005 Indenture and the resolution of the Board adopted on [June 3], 2025, upon the execution and delivery hereof and the issuance of the Series 2025A Bonds (as that term is defined in the Eleventh Supplemental Indenture, dated as of [July] 1, 2025, between the Authority, the Co-Trustee and the Trustee), this Indenture shall constitute the Twelfth Supplemental Indenture executed and delivered in accordance with the terms and conditions of the 2005 Indenture. The Series 2025A Bonds issued under the Eleventh Supplemental Indenture shall constitute an additional Series of Bonds, as those terms are defined in, and as authorized in accordance with the terms and conditions of, the 2005 Indenture, including without limitation Sections 3.04 and 3.05 of the 2005 Indenture. Until the Transition Date, the terms and conditions of the 2005 Indenture shall continue to control with respect to all Bonds issued under the 2005 Indenture and this Indenture.
- (B) Amendment and Restatement of 2005 Indenture. Upon the Transition Date, this Indenture shall constitute a full amendment and complete restatement of the 2005 Indenture and in the case of any inconsistency or contradiction between this Indenture and the 2005 Indenture, the terms of this Indenture shall control; provided, however, that in accordance with the 2005 Indenture under no circumstances shall this Indenture constitute an amendment or restatement of any of the following, namely, this Indenture, as it applies to any Bonds that were originally issued under the 2005 Indenture and are Outstanding on the date of execution and delivery of this Indenture, shall never:

- (1) extend the fixed maturities of the Bonds, or extend the time for making any Mandatory Sinking Account Payments, or reduce the rate of interest thereon, or extend the time of payment of interest, or reduce the amount of principal thereof, or reduce any premium payable on the redemption thereof, without the consent of the Owner of each Bond so affected,
- (2) reduce the aforesaid percentage of Owners of Bonds whose consent is required for the execution of any amendment or modification of this Indenture or permit the creation of any lien on the Revenues prior to or on a parity with the lien created by this Indenture or deprive the Owners of the Bonds of the lien created by this Indenture upon such Revenues, without in each case the consent of the Owners of all of the Bonds then Outstanding; or
- (3) modify any of the rights or obligations of any Fiduciary without its consent thereto.
- (C) Consent to Amendment by Owners of 2005 Bonds and Additional Bonds. The initial Owners of Series 2025A Bonds and the initial Owners of any Additional Bonds (as defined in the 2005 Indenture) issued after [Closing Date], the date of issuance of the Series 2025A Bonds, as authorized in accordance with the terms and conditions of the 2005 Indenture, shall, as an express condition to the delivery and purchase of such Bonds, agree and give their consent that: (1) this Indenture shall constitute a full amendment and complete restatement of the 2005 Indenture; and (2) subject to the limitations of this Section 11.16, from and after the Transition Date, in the case of any inconsistency or contradiction between this Indenture and the 2005 Indenture, the language of this Indenture shall control; and (3) notwithstanding Section 9.01 of the 2005 Indenture, the notice of the proposed execution of this Indenture, including a brief statement of the nature of this Indenture, need not be mailed or otherwise provided to such Owners.
- (D) <u>Disposition of Certain Funds</u>. Subject to Section 11.16(e) hereof, upon the Transition Date, the amounts on deposit in the various funds and accounts established pursuant to the 2005 Indenture shall be transferred by the Trustee (or the Trustee shall cause the Board to transfer such amounts) as shall be set forth in a Certificate of the Authority delivered to the Trustee; provided, however, that on and after the Transition Date, the Trustee shall continue to maintain the [2025A Bonds Debt Service Reserve Subaccount (as described in Section 13.04 of the Seventh Supplemental Indenture) and the 2025B Bonds Debt Service Subaccount] (as described in Section \_\_\_\_\_ of the Eleventh Supplemental Indenture) and the amounts on deposit therein in accordance with Section \_\_\_\_\_, \_\_\_\_ and \_\_\_\_ of the Eleventh Supplemental Indenture.

IN WITNESS WHEREOF, the GUAM WATERWORKS AUTHORITY has caused this Indenture to be signed in its name by its duly authorized officers; and BANK OF GUAM and U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION, in token of their acceptance of the respective trusts created hereunder, has caused this Indenture to be signed in their respective corporate names by one of their authorized officers, all as of the day and year first above written.

# **GUAM WATERWORKS AUTHORITY**

Ву	Chairperson of the Board
Ву	
	General Manager
BANK	OF GUAM, as Trustee
Ву	
	Title:
Ву	T'd
	Title:
	ANK TRUST COMPANY, NATIONAL CIATION, as Co-Trustee
Ву	Title

The undersigned BANK OF Goodbligations of Depositary for the Revenue Fund		ereby accepts and agrees to perform the duties and nis Indenture.
	BANK	OF GUAM, as Depositary for the Revenue Fund
	Ву	Title:

# 2025A BONDS CONTINUING DISCLOSURE AGREEMENT

[Closing Date]

This Continuing Disclosure Agreement (this "Disclosure Agreement") is executed and delivered by the Guam Waterworks Authority (the "Authority") and Digital Assurance Certification, L.L.C., as dissemination agent (the "Dissemination Agent"), in connection with the issuance of \$[2025A PAR] Guam Waterworks Authority Water and Wastewater System Revenue Bonds, Series 2025A (the "Bonds") pursuant to the Indenture, dated as of December 1, 2005 (the "General Indenture"), as amended and supplemented from time to time, including as supplemented by the Eleventh Supplemental Indenture, dated as of [July 1], 2025 (the "Eleventh Supplemental Indenture"), among the Authority, Bank of Guam, as trustee, and U.S. Bank Trust Company, National Association, as co-trustee. The General Indenture, as amended and supplemented, including as supplemented by the Eleventh Supplemental Indenture, is referred to herein as the "Indenture." The Authority and the Dissemination Agent covenant and agree as follows:

- SECTION 1. <u>Purpose of this Disclosure Agreement</u>. This Disclosure Agreement is being executed and delivered by the Authority for the benefit of the Holders and Beneficial Owners of the Bonds and in order to assist the Participating Underwriter in complying with Securities and Exchange Commission Rule 15c2-12(b)(5).
- SECTION 2. <u>Definitions</u>. In addition to the definitions set forth in the Indenture, which apply to any capitalized term used in this Disclosure Agreement unless otherwise defined in this Section 2, the following capitalized terms shall have the following meanings:
- "Annual Report" means any Annual Report provided by the Authority pursuant to, and as described in, Sections 3 and 4 of this Disclosure Agreement.
- "Annual Filing Date" means the date, set forth in Section 3(a), by which the Annual Report is to be filed with the MSRB.
- "Beneficial Owner" means any person which has or shares the power, directly or indirectly, to make investment decisions concerning ownership of any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries).
- "Business Day" means any day other than a Saturday, Sunday or other day on which Authority offices generally are not open for business.
- "Certification" means a written certification of compliance signed by the Disclosure Representative stating that the Annual Report, Listed Event notice, or Failure to File Event notice, as applicable, delivered to the Dissemination Agent is the Annual Report, Listed Event notice or Failure to File Event notice, as applicable, required to be submitted to the MSRB under this Continuing Disclosure Agreement. A Certification shall accompany each such document submitted to the Dissemination Agent by the Authority and include the full name of the Bonds and the 9-digit CUSIP numbers for all Bonds to which the document applies.
- "Disclosure Representative" means such person as the Authority shall designate in writing to the Dissemination Agent from time to time as the person responsible for providing Information to the Dissemination Agent.
- "Dissemination Agent" means Digital Assurance Certification, L.L.C. ("DAC"), or any successor Dissemination Agent designated in writing by the Authority and which has filed with the Authority a written acceptance of such designation.
- "Failure to File Event" means the Authority's failure to file an Annual Report on or before the Annual Filing Date.

"Financial Obligation" means, for purposes of the Listed Events set out in Sections 5(a)(10) and (5)(b)(8), a (i) debt obligation; (ii) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (iii) guarantee of (i) or (ii). The term "Financial Obligation" shall not include municipal securities (as defined in the Securities Exchange Act of 1934, as amended) as to which a final official statement (as defined in the Rule) has been provided to the MSRB consistent with the Rule.

"Force Majeure Event" means: (i) acts of God, war, or terrorist action; (ii) failure or shut-down of the Electronic Municipal Market Access system maintained by the MSRB; or (iii) to the extent beyond the Dissemination Agent's reasonable control, interruptions in telecommunications or utilities services, failure, malfunction or error of any telecommunications, computer or other electrical, mechanical or technological application, service or system, computer virus, interruptions in Internet service or telephone service (including due to a virus, electrical delivery problem or similar occurrence) that affect Internet users generally, or in the local area in which the Dissemination Agent or the MSRB is located, or acts of any government, regulatory or any other competent authority the effect of which is to prohibit the Dissemination Agent from performance of its obligations under this Disclosure Agreement.

"Holder" means the person in whose name any Bond shall be registered.

"Information" means, collectively, the Annual Reports, the Listed Event notices and the Failure to File Event notices.

"Listed Events" means any of the events listed in Sections 5(a) or 5(b) of this Disclosure Agreement.

"MSRB" means the Municipal Securities Rulemaking Board or any other entity designated or authorized by the Securities and Exchange Commission to receive reports pursuant to the Rule. Until otherwise designated by the MSRB or the Securities and Exchange Commission, filings with the MSRB are to be made through the Electronic Municipal Market Access (EMMA) website of the MSRB, currently located at https://emma.msrb.org/.

"Official Statement"	'means the Official Statement,	, dated [	_], 2025, as supplemented,	relating
to the Bonds				

"Participating Underwriter" means the original underwriter(s) of the Bonds required to comply with the Rule in connection with the offering of the Bonds.

"Rule" mean Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

# SECTION 3. <u>Provision of Annual Reports</u>.

- (a) The Authority shall, or shall cause the Dissemination Agent to, not later than 270 days after the end of each fiscal year of the Authority (presently September 30) (the "Annual Filing Date"), commencing with the report for the fiscal year ending September 30, 2025, provide to the MSRB an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Agreement; provided that the audited financial statements of the Authority may be submitted separately from the balance of the Annual Report and later than the date required above for the filing of the Annual Report if they are not available by that date, subject to the requirement in Section 4(a) of this Disclosure Agreement to file the unaudited financial statements. If the Authority's fiscal year changes, it shall give notice of such change in the same manner as for a Listed Event under Section 5(a).
- (b) The Authority shall provide, annually, an electronic copy of the Annual Report and Certification to the Dissemination Agent, not later than fifteen (15) days prior to the Annual Filing Date. Promptly upon receipt of an electronic copy of the Annual Report and the Certification, the Dissemination Agent shall provide an Annual Report to the MSRB not later than the Annual Filing Date. The Annual Report may be submitted as a single document or as separate documents comprising a package, and may cross reference other information as provided in Section 4 of this Disclosure Agreement.

- (c) If on the fifteenth (15th) day prior to the Annual Filing Date, the Dissemination Agent has not received a copy of the Annual Report and Certification, the Dissemination Agent shall contact the Disclosure Representative by telephone and in writing (which may be by e-mail) to remind the Authority of its undertaking to provide the Annual Report pursuant to subsection 3(a). Upon such reminder, the Disclosure Representative shall either (i) provide the Disclosure Dissemination Agent with an electronic copy of the Annual Report and the Certification no later than two (2) business days prior to the Annual Filing Date, or (ii) instruct the Dissemination Agent in writing that the Authority will not be able to file the Annual Report within the time required under this Disclosure Agreement, state the date by which the Annual Report for such year will be provided and instruct the Dissemination Agent that a Failure to File Event has occurred and to immediately send a notice to the MSRB in substantially the form attached as Exhibit A, accompanied by a cover sheet completed by the Dissemination Agent.
- (d) If the Dissemination Agent has not received an Annual Report and Certification by 6:00 p.m. Eastern time on the Annual Filing Date (or, if such Annual Filing Date falls on a Saturday, Sunday or holiday, then the first business day thereafter) for the Annual Report, a Failure to File Event shall have occurred and the Authority irrevocably directs the Dissemination Agent to immediately send a notice to the MSRB in substantially the form attached as Exhibit A without reference to the anticipated filing date for the Annual Report, accompanied by a cover sheet completed by the Dissemination Agent.
- (e) If the Authority adjusts the Annual Filing Date upon change of its fiscal year, it shall provide written notice of such change and the new Annual Filing Date to the Dissemination Agent and the MSRB, provided, however, that the period between the existing Annual Filing Date and new Annual Filing Date shall not exceed one year.
- (f) Any Information received by the Dissemination Agent before 6:00 p.m. Eastern time on any business day that it is required to file with the MSRB pursuant to the terms of this Disclosure Agreement and that is accompanied by a Certification and all other information required by the terms of this Disclosure Agreement will be filed by the Dissemination Agent with the MSRB no later than 11:59 p.m. Eastern time on the same business day; provided, however, the Dissemination Agent shall have no liability for any delay in filing with the MSRB if such delay is caused by a Force Majeure Event provided that the Dissemination Agent uses reasonable efforts to make any such filing as soon as possible.
- SECTION 4. <u>Content of Annual Reports</u>. The Annual Report shall contain or include by reference the following:
- (a) the audited financial statements of the Authority for the prior fiscal year, prepared in accordance with generally accepted accounting principles as promulgated to apply to governmental entities from time to time by the Governmental Accounting Standards Board; provided that if the Authority's audited financial statements are not available by the time the Annual Report is required to be filed pursuant to Section 3(a), the Annual Report shall contain unaudited financial statements for such entity in a format similar to the financial statements contained in the Official Statement, and the audited financial statements shall be filed in the same manner as the Annual Report when they become available; and
- (b) operating results of the water and wastewater systems (the "System"), debt service coverage ratios, sources and uses of water, largest water and wastewater customers, data on collection of payments from customers of the System, and new water and sewer installations, to the extent that such information is historical and not projected.

The Authority has not undertaken in this Disclosure Agreement to provide all information an investor may want to have in making decisions to buy, hold or sell the Bonds, but only to provide the information specified above. Any or all of the items listed above may be included by specific reference to other documents, including official statements of debt issues of the Authority, which have been submitted to the MSRB or the Securities and Exchange Commission. If the document included by reference is a final official statement, it must be available from the MSRB. The Authority shall clearly identify each such other document so included by reference.

# SECTION 5. Reporting of Significant Events.

- (a) The Authority shall give, or cause to be given, to the MSRB notice of the occurrence of any of the following events with respect to the Bonds in a timely manner not later than ten (10) business days after the occurrence of the event:
  - (1) Principal and interest payment delinquencies;
  - (2) Unscheduled draws on debt service reserves reflecting financial difficulties;
  - (3) Unscheduled draws on credit enhancements reflecting financial difficulties;
  - (4) Substitution of credit or liquidity providers, or their failure to perform;
  - (5) Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability or Notices of Proposed Issue (IRS Form 5701-TEB);
    - (6) Tender offers;
    - (7) Defeasances;
    - (8) Rating changes;
    - (9) Bankruptcy, insolvency, receivership or similar event of the Authority; or
  - (10) Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the Authority, any of which reflect financial difficulties.

Note: for the purposes of the event identified in subparagraph (9), the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the Authority in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the Authority, or if such jurisdiction has been assumed by leaving the existing governmental body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Authority.

- (b) The Authority shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Bonds, if material, to the MSRB in a timely manner not later than ten business days after the occurrence of the event:
  - (1) Non-payment related defaults;
  - (2) Unless described in paragraph 5(a)(5), other material notices or determinations by the Internal Revenue Service with respect to the tax status of the Bonds or other material events affecting the tax status of the Bonds;
    - (3) Modifications to rights of Bond holders;
    - (4) Optional, unscheduled or contingent Bond calls;
    - (5) Release, substitution, or sale of property securing repayment of the Bonds;

- (6) The consummation of a merger, consolidation, or acquisition involving the Authority or the sale of all or substantially all of the assets of the Authority, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms;
  - (7) Appointment of a successor or additional trustee or the change of name of a trustee; or
- (8) Incurrence of a Financial Obligation of the Authority, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the Authority, any of which affect Bond holders.
- (c) Whenever the Authority obtains knowledge of the occurrence of a Listed Event under subsection 5(b), the Authority shall as soon as practicable determine if such event is material under applicable federal securities laws. If the Authority determines that the occurrence of such Listed Event would be material under applicable federal securities laws, the Authority shall promptly notify the Dissemination Agent in writing of the occurrence of the Listed Event. Such notice shall instruct the Dissemination Agent to report the occurrence pursuant to subsection 5(e) and shall be accompanied by a Certification. Such notice or Certification shall identify the Listed Event that has occurred (which shall be any of the categories set forth in subsections 5(a) or 5(b) of this Disclosure Agreement), include the text of the disclosure that the Authority desires to make, contain the written authorization of the Authority for the Dissemination Agent to disseminate such information, and identify the date the Authority desires for the Dissemination Agent to disseminate the information.
- (d) The Dissemination Agent is under no obligation to notify the Authority or the Disclosure Representative of an event that may constitute a Listed Event. In the event the Dissemination Agent so notifies the Disclosure Representative, the Disclosure Representative will promptly instruct the Dissemination Agent that either (i) a Listed Event has not occurred and no filing is to be made or (ii) a Listed Event has occurred and the Dissemination Agent is to report the occurrence pursuant to subsection 5(e), which instructions relating to this clause (ii) to be accompanied by a Certification. Such Certification shall identify the Listed Event that has occurred (which shall be any of the categories set forth in subsections 5(a) or 5(b)), include the text of the disclosure that the Authority desires to make, contain the written authorization of the Authority for the Dissemination Agent to disseminate such information, and identify the date the Authority desires for the Dissemination Agent to disseminate the information.
- (e) If the Dissemination Agent has been instructed by the Authority as prescribed in subsections 5(c) or 5(d)(ii) to report the occurrence of a Listed Event, the Dissemination Agent shall file a notice of such occurrence with the MSRB within the time frame set forth in Section 3(f). This notice will be filed with a cover sheet completed by the Dissemination Agent.
- (f) The Authority intends to comply with the Listed Events described in subsections 5(a)(10) and 5(b)(8), and the definition of "Financial Obligation" in Section 2, with reference to the Rule, any other applicable federal securities laws and the guidance provided by the Securities and Exchange Commission in Release No. 34-83885 dated August 20, 2018 (the "2018 Release"), and any further amendments or written guidance provided by the Securities and Exchange Commission or its staff with respect the amendments to the Rule effected by the 2018 Release.
- SECTION 6. <u>Termination of Reporting Obligation</u>. The Authority's obligations under this Disclosure Agreement shall terminate upon the legal defeasance, prior redemption or payment in full of the Bonds.
- SECTION 7. <u>Dissemination Agent</u>. The Authority has appointed Digital Assurance Certification, L.L.C. as exclusive Dissemination Agent under this Disclosure Agreement. The Authority may, upon thirty days' prior written notice to the Dissemination Agent, replace or appoint a successor Dissemination Agent. Upon termination of DAC's services as Dissemination Agent, whether by notice of the Authority or DAC, the Authority agrees to appoint a successor Dissemination Agent or, alternately, agrees to assume all responsibilities of Dissemination Agent under this Disclosure Agreement for the benefit of the holders of the Bonds. Notwithstanding any replacement or appointment of a successor, the Authority shall remain liable until payment in full for any and all sums owed and payable to the Dissemination Agent. The Dissemination Agent may resign at any time by providing thirty days' prior written notice to the Authority.

- SECTION 8. <u>Amendment; Waiver</u>. Notwithstanding any other provision of this Disclosure Agreement, the Authority and the Dissemination Agent may amend this Disclosure Agreement, and any provision of this Disclosure Agreement may be waived, provided that the following conditions are satisfied:
- (a) If the amendment or waiver relates to the provisions of Sections 3(a), 4, 5(a) or 5(b), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of the Authority with respect to the Bonds, or the type of business conducted;
- (b) The undertaking, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and
- (c) The amendment or waiver either (A) is approved by the Holders of a majority in aggregate principal amount of the affected Bonds, or (B) does not, in the opinion of nationally recognized bond counsel or another independent third party, materially impair the interests of the Holders or Beneficial Owners of the Bonds.

In the event of any amendment or waiver of a provision of this Disclosure Agreement, the Authority shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by the Authority. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (A) notice of such change shall be given in the same manner as for a Listed Event under Section 5(a), and (B) the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

SECTION 9. <u>Additional Information</u>. Nothing in this Disclosure Agreement shall be deemed to prevent the Authority from disseminating any other information, using the means of dissemination set forth in this Disclosure Agreement or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is required by this Disclosure Agreement. If the Authority chooses to include any information in any Annual Report or notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Agreement, the Authority shall have no obligation under this Disclosure Agreement to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

SECTION 10. <u>Default</u>. In the event of a failure of the Authority to comply with any provision of this Disclosure Agreement, the sole remedy for any Holder or Beneficial Owner of the Bonds shall be to take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause or compel the Authority to comply with its obligations under this Disclosure Agreement. A default under this Disclosure Agreement shall not be deemed an event of default under the Indenture.

# SECTION 11. <u>Duties, Immunities and Liabilities of Dissemination Agent.</u>

(a) The Dissemination Agent shall have only such duties as are specifically set forth in this Disclosure Agreement. The Dissemination Agent's obligation to deliver the information at the times and with the contents described herein shall be limited to the extent the Authority has provided such information to the Dissemination Agent as required by this Disclosure Agreement. The Dissemination Agent shall have no duty with respect to the content of any disclosures or notice made pursuant to the terms hereof. The Dissemination Agent shall have no duty or obligation to review or verify any Information or any other information, disclosures or notices provided to it by the Authority and shall not be deemed to be acting in any fiduciary capacity for the Authority, the Holders of the Bonds or any other party. The Dissemination Agent shall have no responsibility for the Authority's failure to report to the Dissemination Agent a Listed Event or a duty to determine the materiality thereof. The Dissemination Agent shall have no duty to determine, or liability for failing to determine, whether the Authority has complied with this Disclosure Agreement. The Dissemination Agent may conclusively rely upon Certifications of the Authority at all times.

The obligations of the Authority under this Section 11 shall survive resignation or removal of the Dissemination Agent and defeasance, redemption or payment of the Bonds.

- (b) The Dissemination Agent may, from time to time, consult with legal counsel (either in-house or external) of its own choosing in the event of any disagreement or controversy, or question or doubt as to the construction of any of the provisions hereof or its respective duties hereunder, and shall not incur any liability and shall be fully protected in acting in good faith upon the advice of such legal counsel. The reasonable fees and expenses of such counsel shall be payable by the Authority.
- SECTION 12. <u>Format for Filings with MSRB</u>. All documents, reports, notices, statements, information and other materials provided to the MSRB under this Disclosure Agreement shall be provided in an electronic format and accompanied by identifying information as prescribed by the MSRB necessary to file such information in accordance with this Disclosure Agreement.
- SECTION 13. <u>Beneficiaries</u>. This Disclosure Agreement shall inure solely to the benefit of the Authority, the Dissemination Agent, the Participating Underwriter and Holders and Beneficial Owners from time to time of the Bonds, and shall create no rights in any other person or entity.

Dated as of the date first written above.

GUAM WATERWORKS AUTHORITY
By:
Authorized Officer
DIGITAL ASSURANCE CERTIFICATION, L.L.C.
By:Authorized Officer



# **EXHIBIT A**

# NOTICE TO MUNICIPAL SECURITIES RULEMAKING BOARD OF FAILURE TO FILE ANNUAL REPORT

Name of Issuer:	Guam Waterworks Authority		
Name of Bond Issue:	Water and Wastewater System Revenue Bonds, Series 2025A		
Date of Issuance:	[Closing Date]		
above-named Bonds as requi	BY GIVEN that the Authority has not provided an Annual Report with respect to the red by Section 3 of the Continuing Disclosure Agreement, dated [Closing Date]. [The Annual Report will be filed by]		
	GUAM WATERWORKS AUTHORITY		
	By: [to be signed only if filed] Title:		

\$[Principal]
Guam Waterworks Authority
Water and Wastewater System
Revenue Bonds
Series 2025A

# **BOND PURCHASE AGREEMENT**

[Sale Date], 2025

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

Guam Economic Development Authority ITC Building 590 South Marine Corps Drive, Suite 511 Tamuning, Guam 96931

#### Ladies and Gentlemen:

RBC Capital Markets, LLC and Raymond James & Associates, Inc. (each an "Underwriter" and together the "Underwriters") hereby offer to enter into this Bond Purchase Agreement (the "Bond Purchase Agreement") with the Guam Waterworks Authority (the "Authority") for the purchase by the Underwriters and the sale by the Authority of its Water and Wastewater System Revenue Bonds specified below. This offer is made subject to acceptance thereof by the Authority and the Guam Economic Development Authority ("GEDA") prior to 11:59 p.m., prevailing time in New York, New York, on the date hereof, and, upon such acceptance, evidenced by the signatures of the respective duly authorized officers of the Authority and GEDA in the space provided below, this Bond Purchase Agreement shall be in full force and effect in accordance with its terms and shall be binding upon the Authority and the Underwriters. Capitalized terms used herein and not otherwise defined shall have the meanings assigned to them in the Official Statement (as defined herein).

# A. Purchase of the 2025A Bonds; Authorization.

1. Upon and subject to the terms and conditions and upon the basis of the representations and warranties herein set forth, the Underwriters hereby agree to purchase from the Authority, and the Authority hereby agrees to sell to the Underwriters, all (but not less than all) of the Authority's Water and Wastewater System Revenue Bonds, Series 2025A (the "2025A Bonds"). The purchase price for the 2025A Bonds shall be \$[Purchase Price] (the "2025A Purchase Price"), representing the principal amount of the 2025A Bonds of \$[Principal], plus an original issue premium of \$[Premium], and less an

underwriters' discount of \$[UW Discount]. The 2025A Bonds shall be dated the date of original issuance thereof (the "Dated Date"), shall mature on the dates, shall be subject to prior redemption, and shall bear interest (from the Dated Date) at the rates, all as set forth in Appendix A, attached hereto, and shall be payable at the times and in the manner, and shall otherwise have the terms and provisions, set forth in the Twelfth Supplemental Indenture (as defined below).

- 2. The issuance, sale and delivery of the 2025A Bonds have been approved by Resolution No. [27-FY2025] of the Consolidated Commission on Utilities adopted on [June 3], 2025 (the "CCU Resolution"). The issuance and sale of the 2025A Bonds have been approved by GEDA pursuant to Resolution No. [25- ] adopted on [June 19], 2025 (the "GEDA Resolution") and by the Guam Public Utilities Commission pursuant to the Orders in GWA Docket No. [25- ] dated [June 26], 2025 (the "PUC Order"). The 2025A Bonds shall be issued pursuant to Chapter 14 of Title 12 of the Guam Code Annotated, as amended (the "Act") and Public Law No. 37-103, adopted by the Legislature on May 31, 2024 and signed by the Governor on June 5, 2024 (the "Bond Act"). The 2025A Bonds shall be as described in and shall be issued and secured under and pursuant to an Indenture, dated as of December 1, 2005, as previously supplemented and amended (the "General Indenture"), and as supplemented by a Twelfth Supplemental Indenture, dated as of [July 1], 2025 (the "Twelfth Supplemental Indenture" and, together with the General Indenture, the "Indenture"), each by and among the Authority, Bank of Guam, as trustee and depositary (the "Trustee") and U.S. Bank Trust Company, National Association, as co-trustee and paying agent and registrar (the "Co-Trustee").
- B. The Closing. The "Closing" shall take place at [11:45 p.m.], Guam time on [Closing Date], 2025 (8:45 a.m., New York time, on [Closing Date], 2025), or on such other date or at such other time as shall have been mutually agreed upon by the Authority and the Underwriters as the date on or place at which the Closing shall occur (the "Closing Date"). At [8:45 a.m.], New York time (or as soon thereafter as The Depository Trust Company ("DTC") permits), on the Closing Date, the Authority will cause the 2025A Bonds in definitive form, duly executed and authenticated, to be delivered to the principal office of DTC in New York, New York. Simultaneously with such delivery, and provided that all conditions to the obligations of the Underwriters set forth in Section K hereof have been satisfied and the documents referred to therein are in form and substance satisfactory to the Underwriters, the Underwriters will cause the 2025A Purchase Price of the 2025A Bonds to be paid in immediately available funds to the order of the Authority. The 2025A Bonds, bearing CUSIP numbers, will be in definitive form and registered in the name of "Cede & Co." as nominee of DTC. There shall be one original 2025A Bond for each maturity of the 2025A Bonds and the 2025A Bonds will be delivered to the Co-Trustee, as FAST agent on behalf of DTC pursuant to DTC's Fast Automated Securities Transfer program, at or before the date and time of the Closing. The failure of the 2025A Bonds to bear correct CUSIP numbers shall not be a basis for failure of the Underwriters to accept delivery of the 2025A Bonds.

## C. Establishment of Issue Price of 2025A Bonds.

- 1. The Underwriters agree to assist the Authority in establishing the issue price of the 2025A Bonds and each Underwriter shall execute and deliver to the Authority at Closing an "issue price" or similar certificate, together with the supporting pricing wires or equivalent communications, substantially in the form attached hereto as Exhibit A, with such modifications as may be appropriate or necessary, in the reasonable judgment of the Underwriters, the Authority and Orrick Herrington & Sutcliffe LLP ("Bond Counsel"), to accurately reflect, as applicable, the sales price or prices or the initial offering price or prices to the public of the 2025A Bonds.
- 2. [Except as otherwise set forth in Schedule I attached hereto,] the Authority will treat the first price at which 10% of each maturity of the 2025A Bonds (the "10% test") is sold to the public as the issue price of that maturity. At or promptly after the execution of this Bond Purchase Agreement, the each of the Underwriters shall report to the Authority the price or prices at which such Underwriter has sold to the public each maturity of 2025A Bonds. For purposes of this Section, if 2025A Bonds mature on the same date but have different interest rates, each separate CUSIP number within that maturity will be treated as a separate maturity of the 2025A Bonds.
- 3. [The Underwriters confirm that they have offered the 2025A Bonds to the public on or before the date of this Bond Purchase Agreement at the offering price or prices (the "initial offering price"), or at the corresponding yield or yields, set forth in Schedule I attached hereto, except as otherwise set forth therein. Schedule I also sets forth, as of the date of this Bond Purchase Agreement, the maturities, if any, of the 2025A Bonds for which the 10% test has not been satisfied and for which the Authority and the Underwriters agree that (i) the Underwriters will retain all unsold 2025A Bonds of each maturity for which the 10% test has not been satisfied and (ii) the restrictions set forth in the next sentence shall apply, which will allow the Authority to treat the initial offering price to the public of each such maturity as of the sale date as the issue price of that maturity (the "hold-the-offering-price rule"). So long as the hold-the-offering-price rule remains applicable to any maturity of the 2025A Bonds, the Underwriters will neither offer nor sell unsold 2025A Bonds of that maturity to any person at a price that is higher than the initial offering price to the public during the period starting on the sale date and ending on the earlier of the following:
  - (1) the close of the fifth  $(5^{th})$  business day after the sale date; or
  - (2) the date on which the Underwriters have sold at least 10% of that maturity of the 2025A Bonds to the public at a price that is no higher than the initial offering price to the public.

The Underwriters will advise the Authority promptly after the close of the fifth (5th) business day after the sale date whether the Underwriters have sold 10% of that maturity of the 2025A Bonds to the public at a price that is no higher than the initial offering price to the public.]

## 4. The Underwriters confirm that:

- (a) any agreement among underwriters, any selling group agreement and each thirdparty distribution agreement (to which an Underwriter is a party) relating to the initial sale of the 2025A Bonds to the public, together with the related pricing wires, contains or will contain language obligating each Underwriter, each dealer who is a member of the selling group and each broker-dealer that is a party to such third-party distribution agreement, as applicable:
  - (i) (A) to report the prices at which it sells to the public the unsold 2025A Bonds of each maturity allocated to it, whether or not the Closing Date has occurred, until either all 2025A Bonds of that maturity allocated to it have been sold or it is notified by the Underwriters that the 10% test has been satisfied as to the 2025A Bonds of that maturity, provided that, the reporting obligation after the Closing Date may be at reasonable periodic intervals or otherwise upon request of the Underwriters, and (B) to comply with the hold-the-offering-price rule, if applicable, if and for so long as directed by the Underwriters and as set forth in the related pricing wires, and
  - (ii) to promptly notify the Underwriters of any sales of 2025A Bonds that, to its knowledge, are made to a purchaser who is a related party to an underwriter participating in the initial sale of the 2025A Bonds to the public (each such term being used as defined below),
  - (iii) to acknowledge that, unless otherwise advised by the Underwriters, dealer or broker-dealer, the Underwriters shall assume that each order submitted by the Underwriters, dealer or broker-dealer is a sale to the public.
- (b) any agreement among underwriters or selling group agreement relating to the initial sale of the 2025A Bonds to the public, together with the related pricing wires, contains or will contain language obligating each Underwriter or dealer that is a party to a third-party distribution agreement to be employed in connection with the initial sale of the 2025A Bonds to the public to require each broker-dealer that is a party to such third-party distribution agreement to (A) report the prices at which it sells to the public the unsold 2025A Bonds of each maturity allocated to it, whether or not the Closing Date has occurred, until either all 2025A Bonds of that maturity allocated to it have been sold or it is notified by the Underwriters or such dealer that the 10% test has been satisfied as to the 2025A Bonds of that maturity, provided that, the reporting obligation after the Closing Date may be at reasonable periodic intervals or otherwise upon request of the Underwriters or such dealer, and (B) comply with the hold-the-offering-price rule, if applicable, if and for so long as directed by the Underwriters or the dealer and as set forth in the related pricing wires.
- 5. The Authority acknowledges that, in making the representations set forth in this section, the Underwriters will rely on (i) the agreement of each Underwriter to comply with the requirements for establishing issue price of the 2025A Bonds, including, but not limited

to, its agreement to comply with the hold-the-offering-price rule, if applicable to the 2025A Bonds, as set forth in an agreement among underwriters and the related pricing wires, (ii) in the event a selling group has been created in connection with the initial sale of the 2025A Bonds to the public, the agreement of each dealer who is a member of the selling group to comply with the requirements for establishing issue price of the 2025A Bonds, including, but not limited to, its agreement to comply with the hold-the-offeringprice rule, if applicable to the 2025A Bonds, as set forth in a selling group agreement and the related pricing wires, and (iii) in the event that an Underwriter or dealer who is a member of the selling group is a party to a third-party distribution agreement that was employed in connection with the initial sale of the 2025A Bonds to the public, the agreement of each broker-dealer that is a party to such agreement to comply with the requirements for establishing issue price of the 2025A Bonds, including, but not limited to, its agreement to comply with the hold-the-offering-price rule, if applicable to the 2025A Bonds, as set forth in the third-party distribution agreement and the related pricing wires. The Authority further acknowledges that each Underwriter shall be solely liable for its failure to comply with its agreement regarding the requirements for establishing issue price of the 2025A Bonds, including, but not limited to, its agreement to comply with the hold-the-offering-price rule, if applicable to the 2025A Bonds, and that no Underwriter shall be liable for the failure of any other Underwriter, or of any dealer who is a member of a selling group, or of any broker-dealer that is a party to a third-party distribution agreement, to comply with its corresponding agreement to comply with the requirements for establishing issue price of the 2025A Bonds, including, but not limited to, its agreement to comply with the hold-the-offering-price rule, if applicable to the 2025A Bonds.

- 6. The Underwriters acknowledge that sales of any 2025A Bonds to any person that is a related party to an underwriter participating in the initial sale of the 2025A Bonds to the public (each such term being used as defined below) shall not constitute sales to the public for purposes of this section. Further, for purposes of this section:
  - (a) "public" means any person other than an underwriter or a related party,
  - (b) "underwriter" means (A) any person that agrees pursuant to a written contract with the Authority (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the 2025A Bonds to the public and (B) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (A) to participate in the initial sale of the 2025A Bonds to the public (including a member of a selling group or a party to a third-party distribution agreement participating in the initial sale of the 2025A Bonds to the public),
  - (c) a purchaser of any of the 2025A Bonds is a "related party" to an underwriter if the underwriter and the purchaser are subject, directly or indirectly, to (A) more than 50% common ownership of the voting power or the total value of their stock, if both entities are corporations (including direct ownership by one corporation of another), (B) more than 50% common ownership of their capital interests or profits interests, if both entities are partnerships (including direct ownership by

one partnership of another), or (C) more than 50% common ownership of the value of the outstanding stock of the corporation or the capital interests or profit interests of the partnership, as applicable, if one entity is a corporation and the other entity is a partnership (including direct ownership of the applicable stock or interests by one entity of the other), and

(d) "sale date" means the date of execution of this Bond Purchase Agreement by all parties.

## D. Official Statement.

- 1. The Authority hereby consents to and confirms the prior use by the Underwriters of the Preliminary Official Statement (in printed or electronic form) dated [\_\_\_], 2025 (the "Preliminary Official Statement"), that has been approved by the Authority, in connection with the public offering of the 2025A Bonds by the Underwriters, and further confirms the authority of the Underwriters to use, and consents to the use of, a final Official Statement (in printed or electronic form) with respect to the 2025A Bonds, to be dated the date hereof (or such other date as may be mutually agreed by the Authority and the Underwriters), and any amendments or supplements thereto that shall be approved by the Authority (the "Official Statement"), in connection with the public offering and sale of the 2025A Bonds. The Authority hereby represents and warrants that the Preliminary Official Statement, previously furnished to the Underwriters was "deemed final" by the Authority as of its date with respect to the 2025A Bonds for purposes of Rule 15c2-12 ("Rule 15c2-12"), promulgated by the Securities and Exchange Commission (the "SEC") under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), except for the omission of such information as is specified in Rule 15c2-12(b)(1).
- 2. The Authority shall provide or cause to be provided to the Underwriters within seven (7) business days after the date of this Bond Purchase Agreement, or three (3) business days prior to the Closing, whichever comes first, copies of a final Official Statement in sufficient quantity to permit the Underwriters to comply with Rule 15c2-12 and other applicable rules of the SEC and the Municipal Securities Rulemaking Board (the "MSRB").
- 3. The Authority hereby authorizes the Underwriters to file, and the Underwriters hereby agree to file, the Official Statement with the MSRB through its EMMA system.
- E. <u>Amendments to Official Statement</u>. The Authority covenants with the Underwriters to notify promptly the Underwriters if, during the "Update Period," which is defined to mean the period from the date of this Bond Purchase Agreement to and including the date which is twenty-five (25) days following the End of the Underwriting Period (as hereinafter defined), any event shall occur, or information comes to the attention of the Authority that would cause the Official Statement (whether or not previously supplemented or amended) to contain any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, and if in the opinion of the Underwriters such event or information requires the preparation and distribution of a supplement or amendment to the

Official Statement, to prepare and furnish to the Underwriters, at the Authority's expense, such number of copies of the supplement or amendment to the Official Statement, in form and substance mutually agreed upon by the Authority and approved by the Underwriters, as the Underwriters may reasonably request and if such notification shall be given subsequent to the Closing Date, such additional legal opinions, certificates, instruments, and other documents as the Underwriters may reasonably deem necessary to evidence the truth and accuracy of any such supplement or amendment to the Official Statement.

- F. <u>Public Offering</u>. The Underwriters intend to make an initial public offering of all the 2025A Bonds at prices not in excess of the initial offering price or prices set forth in the Official Statement; provided, however, that the Underwriters may change such initial offering price or prices as they deem necessary, in their sole discretion, in connection with the offering of the 2025A Bonds without any requirement of prior notice, and may offer and sell the 2025A Bonds to certain institutions at prices lower than those stated in the Official Statement.
- G. End of Underwriting Period. For purposes of this Bond Purchase Agreement, the "End of the Underwriting Period" shall mean the earlier of the Closing Date, unless the Authority has been notified to the contrary in writing by the Underwriters on or prior to the Closing Date, or the date on which the "end of the underwriting period" for the 2025A Bonds has occurred under Rule 15c2-12, but in any event not later than 25 days after the Closing Date.
  - 1. The Underwriters shall provide to the Authority upon request such information as may be reasonably required by the Authority in order to determine whether the "end of the underwriting period" for the 2025A Bonds has occurred under Rule 15c2-12 with respect to the unsold balance of 2025A Bonds that are held by either of the Underwriters for sale to the public within the meaning of Rule 15c2-12.
  - 2. Within one business day following receipt thereof, the Underwriters shall deliver the Official Statement and any supplement or amendment thereto to the MSRB through its EMMA system.

## H. Plan of Financing.

- 1. The 2025A Bonds shall be issued and secured as described in Section A hereof, substantially in the form delivered to the Underwriters, with only such changes therein as shall be mutually agreed upon between the Authority and the Underwriters prior to Closing.
- 2. The 2025A Bonds are being issued by the Authority for the following purposes: (a) to fund capital improvements to the Authority's water and wastewater systems, (b) to fund a deposit to a debt service reserve fund, and (c) to pay certain expenses incurred in connection with the issuance of the 2025A Bonds.
- I. <u>Secondary Market Disclosure</u>. The Authority agrees to comply with any and all rules and regulations currently in effect and which hereafter may be adopted by the SEC or the MSRB which are applicable to the 2025A Bonds relating to secondary market disclosure for the 2025A Bonds, including, but not limited to, Rule 15c2-12. To that end, the Authority will

undertake, when required by such rules and regulations, pursuant to the Indenture and the Continuing Disclosure Agreement relating to the 2025A Bonds, dated as of the Closing Date (the "Continuing Disclosure Agreement" and together with the Twelfth Supplemental Indenture, the "Legal Documents"), by and between the Authority and Digital Assurance Certification, L.L.C., as dissemination agent (the "Dissemination Agent"), to provide annual reports and notices of certain events as required therein. A description of this undertaking is set forth in the Preliminary Official Statement and will also be set forth in the Official Statement. Other than as described in the Preliminary Official Statement or the Official Statement, the Authority has not failed within the previous five years to comply in all material respects with any previous undertakings to provide financial information or notices of material events in accordance with the Rule 15c2-12.

- J. <u>Representations, Warranties and Covenants of the Authority</u>. The Authority represents and warrants to, and agrees with, each of the Underwriters that:
  - 1. The Authority is duly organized and validly existing as a Guam public corporation with full legal right, power and authority to issue the 2025A Bonds pursuant to the Act.
  - 2. The Authority has full legal right, power and authority to: (a) execute and deliver this Bond Purchase Agreement, (b) execute and deliver the Twelfth Supplemental Indenture and the Continuing Disclosure Agreement on the Closing Date, (c) deliver the Preliminary Official Statement and execute and deliver the Official Statement, (d) issue, sell and deliver the 2025A Bonds to the Underwriters pursuant to the Indenture, as provided herein; (e) perform its obligations under the 2025A Bonds, the General Indenture and the Legal Documents and this Bond Purchase Agreement, and (f) to carry out and consummate all other transactions contemplated thereby and hereby.
  - 3. By all necessary official action, the Authority has duly authorized and approved the preparation, use, and distribution of the Preliminary Official Statement, the preparation, execution and delivery of the Official Statement, the execution and delivery, use, and distribution of, and the performance of its obligations under the General Indenture, the 2025A Bonds, this Bond Purchase Agreement and the Legal Documents, and the consummation by it of all other transactions contemplated by this Bond Purchase Agreement, the General Indenture and the Legal Documents. Upon execution and delivery by the Authority (assuming due authorization, execution and delivery by and enforceability against the other parties thereto), the Legal Documents and this Bond Purchase Agreement will be, and the General Indenture is in full force and effect and each will or does constitute the legal, valid and binding agreement or obligation of the Authority, enforceable in accordance with its terms, except as enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws or equitable principles relating to or limiting creditors' rights generally, the application of equitable principles, the exercise of judicial discretion and the limitations on legal remedies against the Authority.
  - 4. The 2025A Bonds, when issued, authenticated and delivered in accordance with the Indenture, and sold to the Underwriters as provided herein, will constitute legal, valid and binding obligations of the Authority in conformity with and entitled to the benefit and

security of the Indenture, and enforceable in accordance with their respective terms, except as enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws or equitable principles relating to or limiting creditors' rights generally, the application of equitable principles, the exercise of judicial discretion and the limitations on legal remedies against the Authority.

- 5. The execution and delivery of the 2025A Bonds and the Legal Documents, and compliance with the provisions on the Authority's part contained in the General Indenture, the 2025A Bonds, and the Legal Documents, will not conflict with or constitute a breach of or default under any applicable law (including any provision of the Organic Act of Guam), administrative regulation, court order or consent decree of the Government of Guam or any department, division, agency or instrumentality thereof or of the United States or any applicable judgment or decree or any loan agreement, note, resolution, indenture, agreement or other instrument to which the Authority is a party or may be otherwise subject.
- 6. Other than as described in the Preliminary Official Statement and the Official Statement, the Authority is not in any material respect in breach of or default under any applicable law, administrative regulation, court order or consent decree of the Government of Guam or of the United States, or any agency or instrumentality of either of them, or any applicable judgment or decree, or any loan agreement, indenture, bond, note, resolution, agreement (including, without limitation, the Indenture or this Bond Purchase Agreement) or other instrument to which the Authority is a party which breach or default has or may have a material adverse effect on the ability of the Authority to perform its obligations under the General Indenture, the Legal Documents or this Bond Purchase Agreement and aside from those disclosed in the Preliminary Official Statement, no event has occurred and is continuing which with the passage of time or the giving of notice, or both, would constitute such a default or event of default under any such instrument.
- 7. All opinions, certifications, approvals, consents or orders of any governmental authority, legislative body, board, agency or commission having jurisdiction which are required for the due authorization of, or the obtaining of which would constitute a condition precedent to, or the absence of which would materially adversely affect the approval or adoption, as applicable, of the CCU Resolution, the GEDA Resolution, the PUC Order, the Legal Documents or this Bond Purchase Agreement, the issuance of the 2025A Bonds or due performance by the Authority of its obligations thereunder, under the General Indenture or hereunder, at this time have been duly obtained.
- 8. The 2025A Bonds, when issued, will conform to the descriptions thereof contained in the Preliminary Official Statement (except for the exclusion of pricing information or other information permitted to be omitted in accordance with Rule 15c2-12) and in the Official Statement under the captions "THE 2025A BONDS" and Appendix D "[SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE"]; the proceeds of the 2025A Bonds will be applied generally as described in the Preliminary Official Statement (except for the exclusion of pricing information or other information permitted to be omitted in accordance with Rule 15c2-12) and the Official Statement under the captions "INTRODUCTION" and "PLAN"

- OF FINANCE"; and the General Indenture and the Legal Documents conform in all material respects to the descriptions thereof contained in the Preliminary Official Statement and the Official Statement.
- 9. The Preliminary Official Statement, as of its date and as of the date hereof (excluding any information permitted to be omitted pursuant to Rule 15c2-12), did not and does not contain any untrue or misleading statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.
- 10. At the time of the Authority's acceptance hereof and (unless an event occurs of the nature described in Section E hereof) during the Update Period, the Official Statement does not and will not contain any untrue or misleading statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.
- 11. If the Official Statement is supplemented or amended pursuant to Section E hereof, at the time of each supplement or amendment thereto and (unless subsequently again supplemented or amended pursuant to such section) at all times during the Update Period, the Official Statement, as so supplemented or amended, will not contain any untrue or misleading statement of a material fact or omit to state a material fact or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.
- 12. Except to the extent disclosed in the Preliminary Official Statement and the Official Statement, no action, suit, proceeding, inquiry or investigation (with service of process having been received by the Authority or otherwise known to the Authority) at law or in equity, before or by any court, governmental agency, public board or body is pending or, to the knowledge of the Authority, threatened in any way (a) affecting the existence of the Authority or the title of any official of the Authority to such person's office, (b) seeking to restrain or enjoin the issuance, sale or delivery of the 2025A Bonds or the collection of revenues or assets of the Authority pledged or to be pledged to pay the principal of and interest or premium, if any, on the 2025A Bonds or the pledge thereof, (c) contesting or affecting the validity or enforceability of the Act, the CCU Resolution, the GEDA Resolution, the PUC Order, the General Indenture, the Legal Documents, this Bond Purchase Agreement or the 2025A Bonds, or (d) contesting the completeness or accuracy of the Preliminary Official Statement, the Official Statement or any supplement or amendment thereto, (e) contesting the power or authority of the Authority with respect to the 2025A Bonds, the General Indenture, the Legal Documents, or this Bond Purchase Agreement, or (f) contesting the exclusion of interest on the 2025A Bonds from gross income for federal income tax purposes, nor is there any basis for any such action, suit, proceeding, inquiry or investigation, wherein an unfavorable decision, ruling or finding would materially adversely affect the validity of the Act, the CCU Resolution, the GEDA Resolution, the PUC Order or the authorization, execution, delivery or performance by the Authority of the 2025A Bonds, the General Indenture, the Legal Documents, or this Bond Purchase Agreement.

- 13. Except as otherwise provided herein, the Authority will furnish such information, execute such instruments and take such other action in cooperation with the Underwriters as the Underwriters may reasonably request: (a) to qualify the 2025A Bonds for offer and sale under the Blue Sky or other securities laws and regulations of such states and other jurisdictions as the Underwriters may designate and (b) to determine the eligibility of the 2025A Bonds for investment under the laws of such states and other jurisdictions, and the Authority agrees to make its best efforts to continue such qualifications in effect so long as required for the distribution of the 2025A Bonds (provided that the Authority shall not be obligated to execute a general or special consent to service of process or qualify to do business in connection with any such qualification or determination in any jurisdiction, nor be obligated to incur any obligation arising directly or indirectly from compliance with any applicable laws, rules or regulations in any jurisdiction outside of the United States in which the Underwriters qualify, purchase, offer or sell the 2025A Bonds, or seek permission, consent or approval therefor), and will advise the Underwriters immediately upon receipt by the Authority of any written notification with respect to the suspension of the qualification of the 2025A Bonds for sale in any jurisdiction or the initiation or threat of any proceeding for that purpose.
- 14. The Authority will comply with the requirements of the Tax Certificate executed by the Authority in connection with the delivery of the 2025A Bonds.
- 15. The Authority has the legal authority to apply and will apply, or will cause to be applied, the proceeds from the sale of the 2025A Bonds in accordance with and subject to all of the terms and provisions of the Act, the Bond Act, and the Indenture (including payment or reimbursement of Authority expenses incurred in connection with the issuance, sale and delivery of the 2025A Bonds as set forth in Section M (Payment of Expenses)), and will not take or omit to take any action which action or omission will materially adversely affect the exclusion from gross income for federal income tax purposes of the interest on the 2025A Bonds.
- 16. Unless otherwise expressly stated therein, any certificate signed by any officer of the Authority and delivered to the Underwriters pursuant to the Indenture or this Bond Purchase Agreement or any document contemplated thereby or hereby shall be deemed a representation and warranty by the Authority to the Underwriters as to the statements made therein and that such officer shall have been duly authorized to execute the same.
- 17. There is no public vote or referendum pending or, to the best knowledge of the Authority, proposed, the results of which could in any way adversely affect the transactions contemplated by this Bond Purchase Agreement, the Act, the Bond Act, the CCU Resolution, the GEDA Resolution, the PUC Order, the 2025A Bonds, or the Indenture or the validity or enforceability of the 2025A Bonds.
- 18. The Indenture creates a valid pledge of and grant of a security interest in the Revenues (as defined in the Indenture) purported to be pledged thereby.
- 19. Between the date of this Bond Purchase Agreement and the Closing, the Authority will not, without the prior written consent of the Underwriters, issue any bonds, notes or other

- obligations for borrowed money payable from the Revenues prior to or on a parity with the 2025A Bonds.
- 20. Between the date of this Bond Purchase Agreement and the Closing, the Authority will not take any action within or under its control that will cause any adverse change of a material nature in the enforcement or collection of the Revenues.
- 21. The audited financial statements of the Authority contained in the Preliminary Official Statement and the Official Statement fairly present the financial position and results of operation of the Authority as of the dates and for the periods therein set forth. Such audited financial statements have been prepared in accordance with generally accepted accounting principles consistently applied, and except as noted in the Preliminary Official Statement and the Official Statement, the historical financial information set forth in the Preliminary Official Statement and in the Official Statement has been presented on a basis consistent with that of such audited financial statements.
- K. <u>Conditions to Closing</u>. The Underwriters have entered into this Bond Purchase Agreement in reliance upon the representations and warranties of the Authority contained herein and to be contained in the documents and instruments to be delivered at the Closing and upon the performance by the Authority of its obligations hereunder at or prior to the Closing Date. Accordingly, the Underwriters' obligations under this Bond Purchase Agreement to purchase, to accept delivery of and to pay for the 2025A Bonds are subject to the performance by the Authority of its obligations to be performed hereunder and under such aforesaid documents and instruments at or prior to the Closing, and are also subject to the following conditions:
  - 1. The representations and warranties of the Authority contained herein will be true and correct on the date hereof, and on and as of the Closing Date with the same effect as if made on the Closing Date.
  - 2. At the time of the Closing, the Act, the Bond Act, the GEDA Resolution, the CCU Resolution, the PUC Order, the General Indenture and the Legal Documents will be in full force and effect and will not have been amended, modified or supplemented, and the Official Statement will not have been amended, modified or supplemented, except as may have been agreed to by the Authority and the Underwriters.
  - 3. At the time of the Closing, all necessary action of the Authority relating to the issuance of the 2025A Bonds will have been taken and will be in full force and effect and will not have been amended, modified or supplemented.
  - 4. At or prior to the Closing, the Underwriters will have received each of the following documents:
    - (a) The Official Statement executed by an authorized official of the Authority.

- (b) An executed copy of the Twelfth Supplemental Indenture delivered by the Authority, the Trustee and the Co-Trustee, together with a true and correct copy of the General Indenture.
- (c) An executed copy of the Continuing Disclosure Agreement delivered by the Authority and Digital Assurance Certification, L.L.C. (the "Dissemination Agent").
- (d) The approving opinion, dated the Closing Date and addressed to the Authority, of Orrick, Herrington & Sutcliffe LLP, Bond Counsel to the Authority ("Bond Counsel"), in substantially the form attached to the Official Statement as Appendix E and pursuant to Section 3.05(B)(1)(a) of the General Indenture.
- (e) The supplemental opinion of Bond Counsel dated the Closing Date and addressed to the Underwriters, which includes a reliance statement to the effect that the approving opinion addressed to the Authority may be relied upon by the Underwriters to the same extent as if such opinion were addressed to them, in the form attached as Exhibit B hereto.
- (f) The opinion of counsel to the Trustee, dated the Closing Date and addressed to the Underwriters and the Authority, to the effect that: (i) the Trustee has been duly organized and is validly existing and in good standing under the laws of Guam with full corporate power to undertake the trusts of the Indenture; (ii) the Trustee has duly authorized, executed and delivered the Indenture and by all proper corporate action has authorized the acceptance of the trusts of the Indenture; (iii) assuming the corporate power and legal authority of, and the due authorization, execution and delivery of the Twelfth Supplemental Indenture by, the Authority and the Co-Trustee, the Indenture constitutes a valid and binding agreement of the Trustee enforceable against the Trustee in accordance with its terms, except as enforcement may be limited by bankruptcy, insolvency, moratorium or other similar laws or equitable principles relating to or limiting creditors' rights generally; (iv) no authorization, approval, consent or other order of any governmental agency or, to such counsel's knowledge after due investigation, any other person or corporation is required for the valid authorization, execution and delivery of the Twelfth Supplemental Indenture by the Trustee (except that such counsel need express no view as to federal or state securities laws); and (v) there is no action, suit, proceeding or investigation at law or in equity before or by any court, public board or body known to counsel to the Trustee to be pending or threatened against or affecting the Trustee to restrain or enjoin the Trustee's participation in, or in any way contesting the powers of the Trustee with respect to, the transactions contemplated by the 2025A Bonds, the Indenture or any other agreement, document, or certificate related to such transactions.
- (g) The opinion of counsel to the Co-Trustee, dated the Closing Date and addressed to the Underwriters and the Authority, to the effect that: (i) the Co-Trustee has been duly organized as a national banking association and is validly existing and

in good standing under the laws of the United States of America with all requisite corporate power to undertake the trusts of the Indenture; (ii) the Co-Trustee has duly authorized, executed and delivered the Twelfth Supplemental Indenture and has taken all necessary corporate action to authorize the execution and delivery of the Twelfth Supplemental Indenture and the performance of its obligations thereunder and under the Indenture; (iii) assuming the corporate power and legal authority of, and the due authorization, execution and delivery of, the Indenture by the Authority and the Trustee, the Indenture constitutes a valid and binding agreement of the Co-Trustee enforceable against the Co-Trustee in accordance with its terms, except as enforcement may be limited by bankruptcy, insolvency, moratorium or other similar laws or equitable principles relating to or limiting creditors' rights generally; (iv) the 2025A Bonds have been validly authenticated by the Co-Trustee in its capacity as Registrar under the Indenture; (v) to the best knowledge of such counsel, no authorization, approval, consent or other order of any governmental agency or any other person or corporation is required for the valid authorization, execution and delivery of the Twelfth Supplemental Indenture by the Co-Trustee or the authentication of the 2025A Bonds (except that such counsel need express no view as to federal or state securities laws); and (vi) there is no litigation pending against the Co-Trustee or to the best knowledge of such counsel, threatened against or affecting the Co-Trustee to restrain or enjoin the Co-Trustee's participation in, or in any way contesting the powers of the Co-Trustee with respect to, the transactions contemplated by the 2025A Bonds, the Indenture, or any other agreement, document, or certificate related to such transactions.

(h) An opinion of counsel to the Authority, dated the Closing Date and addressed to the Underwriters singularly or together, to the effect that: (i) the Authority is on the Closing Date a Guam public corporation and pursuant to the Act, the Bond Act, the CCU Resolution, the GEDA Resolution and the PUC Order, has full legal right, power and authority to enter into the Bond Purchase Agreement, and the Continuing Disclosure Agreement, and perform its obligations under the Bond Purchase Agreement, the General Indenture and the Legal Documents, to authorize, issue and sell the 2025A Bonds, to collect and enforce the collection of Revenues and to carry out and consummate all transactions required of it as contemplated by this Bond Purchase Agreement, the General Indenture and the Legal Documents; (ii) the CCU Resolution was duly adopted at a regular meeting of the Consolidated Commission on Utilities duly called for such purpose and has not been amended or repealed; (iii) the Bond Purchase Agreement, the Indenture, and the Continuing Disclosure Agreement have each been duly authorized, executed and delivered by, and, assuming due execution and delivery by and validity against the other parties to such agreements, each constitutes a valid and legal obligation of, the Authority, except that the rights and obligations thereunder may be subject to bankruptcy, insolvency, reorganization, arrangement, fraudulent conveyance, moratorium and other laws relating to or affecting creditors' rights, to the application of equitable principles, and to the exercise of judicial discretion in appropriate cases, and except that no opinion need be expressed with respect to

any indemnification, contribution, liquidated damages, penalty (including any remedy deemed to constitute a penalty), choice of law, choice of forum, choice of venue, waiver or severability provisions contained in such agreements, (iv) the execution and delivery of the Legal Documents and the Bond Purchase Agreement, and the consummation of the transactions contemplated thereby, by the General Indenture and hereby, and the compliance with the provisions thereof and hereof, will not conflict with or constitute on the part of the Authority a breach of or a default under any existing law, administrative regulation, court order or consent decree of the Government of Guam or any department, division, agency or instrumentality of the United States to which the Authority is subject, or any agreement, resolution or instrument to which the Authority is a party or may otherwise be subject; (v) all approvals, consents or orders of any governmental authority, board, agency or commission having jurisdiction the obtaining of which would constitute a condition precedent to the performance by the Authority of its obligations under this Bond Purchase Agreement, the General Indenture, the Legal Documents or the 2025A Bonds and which can reasonably be obtained by the time of Closing have been obtained; (vi) other than as disclosed in the Preliminary Official Statement and the Official Statement, there is no litigation or proceeding, pending (with service of process having been received by the Authority or otherwise known to such counsel) or, to the knowledge of such counsel, threatened (either in local or Federal courts on Guam), (a) to restrain or enjoin the execution or delivery of the 2025A Bonds or the general collection of Revenues, (b) in any way contesting or affecting the existence of the Authority or the title of any official of the Authority to such person's office, (c) seeking to restrain or to enjoin the issuance, sale or delivery of the 2025A Bonds, or the collection of Revenues of the Authority pledged or to be pledged to pay the principal of and interest or premium, if any, on the 2025A Bonds, or the pledge thereof, or (d) in any way contesting or affecting the validity or enforceability of the 2025A Bonds, the General Indenture, the Legal Documents, or this Bond Purchase Agreement, or contesting in any way the completeness or accuracy of the Preliminary Official Statement or the Official Statement, or contesting the power of the Authority or its authority with respect to the 2025A Bonds, the General Indenture, the Legal Documents, or this Bond Purchase Agreement; (vii) as of the date of the Official Statement and as of the Closing Date, the statements contained in the Official Statement under the caption "LITIGATION" are accurate in all material respects; and (viii) without passing upon or assuming any responsibility for the accuracy (except as and to the extent stated in section (vii) above), completeness and fairness of any of the statements contained in the Preliminary Official Statement or the Official Statement or any other offering material relating to the 2025A Bonds, and making no representation that it has independently verified the accuracy, completeness or fairness of any such statements, counsel to the Authority has no reason to believe that either the Preliminary Official Statement, as of its date and as of the date hereof, or the Official Statement, as of its date and as of the Closing Date, contained or contains any untrue statement of a material fact or omitted or omits to state a material fact necessary to make the statements therein, in the light of the circumstances under

which they were made, not misleading (except for the financial statements and other financial and statistical data included in the Preliminary Official Statement and the Official Statement and the Appendices thereto, as to which no view need be expressed).

- (i) An opinion of counsel to GEDA, dated the Closing Date and addressed to the Underwriters and the Authority, to the effect that: (i) the GEDA Resolution was duly adopted at a regular meeting of GEDA duly called and has not been amended or repealed; and (ii) there is no litigation or proceeding pending (with service of process having been received by GEDA or otherwise known to such counsel) or, to the knowledge of such counsel, threatened (in local or Federal courts on Guam) against GEDA in any way affecting the existence of GEDA, the title of any official of GEDA to such person's office, or seeking to restrain or to enjoin the issuance, sale or delivery of the 2025A Bonds or in any way contesting or affecting the validity or enforceability of the 2025A Bonds or contesting in any way the completeness or accuracy of the Preliminary Official Statement or the Official Statement, or contesting the power of GEDA or its authority with respect to the 2025A Bonds.
- (j) A certification of counsel to the PUC, dated the Closing Date, to the effect that: (i) the PUC Order was duly adopted at a regular meeting of the PUC duly called and has not been amended or repealed; and (ii) there is no litigation or proceeding pending (with service of process having been received by PUC or otherwise known to such counsel) or, to the knowledge of such counsel, threatened (in local or Federal courts on Guam) against the PUC in any way affecting the existence of the PUC, the title of any official of PUC to such person's office, or seeking to restrain or to enjoin the issuance, sale or delivery of the 2025A Bonds or in any way contesting or affecting the validity or enforceability of the 2025A Bonds or contesting in any way the completeness or accuracy of the Preliminary Official Statement or the Official Statement, or contesting the power of the PUC or its authority with respect to the 2025A Bonds.
- (k) A certification by the Guam Compiler of Laws attaching a full, true and correct copy of the Act and the Bond Act and including a statement to the effect that the Act and the Bond Act have not been amended or repealed and are in full force and effect.
- (l) The opinion of Hawkins Delafield & Wood LLP, counsel to the Underwriters, dated the Closing Date, to the effect that: (i) the 2025A Bonds are exempt from registration under the Securities Act and the Indenture is exempt from qualification under the Trust Indenture Act; (ii) without having undertaken to determine independently or to assume responsibility for the accuracy, completeness or fairness thereof, and based solely on such counsel's participation in telephone conferences at which representatives of the Authority, GEDA, Bond Counsel, counsel to the Authority, and the Underwriters were at various times present, as a matter of fact and not opinion, nothing has come to such counsel's attention that would lead it to believe that the information and statements (except

for (A) any information relating to CUSIP numbers, any financial, accounting, statistical economic or demographic data or forecasts, projections, estimates, assumptions or expressions of opinion, the financial statements, the information relating to DTC and its book-entry system, ratings, and statements contained under the caption "TAX MATTERS" included in the Preliminary Official Statement and the Official Statement and (B) the Appendices to each, as to which no view need be expressed) in the Preliminary Official Statement, as of its date and as of the date hereof (excluding any information permitted to be omitted pursuant to Rule 15c2-12), or the Official Statement, as of its date and as of the Closing Date, contained or contains any untrue statement of a material fact or omitted or omits to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and (iii) the form of Continuing Disclosure Agreement meets the requirements of Rule 15c2-12 as to form.

- (m) A certificate of the Trustee dated the Closing Date and signed by a duly authorized officer of the Trustee, in form and substance satisfactory to the Underwriters, to the effect that no litigation is pending or, to the best of such officer's knowledge, threatened (in territorial, state or federal courts) to restrain or enjoin the authentication or delivery of the 2025A Bonds or to restrain or enjoin the Trustee from performing its obligations under the General Indenture and the Legal Documents.
- (n) A certificate of the Co-Trustee (in its capacity as Co-Trustee) dated the Closing Date and signed by a duly authorized officer of the Co-Trustee, in form and substance satisfactory to the Underwriters, to the effect that no litigation is pending or, to the best of such officer's knowledge, threatened (in Guam, state or Federal courts) to restrain or enjoin the authentication or delivery of the 2025A Bonds or to restrain or enjoin the Co-Trustee from performing its obligations under the Indenture.
- A certificate dated the Closing Date and signed by an authorized official of the Authority to the effect that: (i) the representations, warranties and covenants of the Authority contained herein are true and correct on and as of the Closing Date with the same effect as if made on the Closing Date; (ii) no event materially adversely affecting the Authority has occurred since the date of the Official Statement; (iii) the Preliminary Official Statement, as of its date and as of the date hereof (excluding any information permitted to be omitted pursuant to Rule 15c2-12), and the Official Statement, as of its date and as of the Closing Date, did not and does not contain any untrue statement of a material fact or omitted or omits to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; (iv) the Authority has complied with this Bond Purchase Agreement and has satisfied all the conditions on its part herein and therein to be performed or satisfied at or prior to the Closing; and (v) there is no litigation or proceeding pending or, to the knowledge of the Authority, threatened and having merit (in Guam, state, or Federal courts) (A) to restrain or enjoin the execution or delivery of the 2025A

Bonds or the general collection of Revenues, or (B) in any way contesting or affecting the existence of the Authority or the title of any official of the Authority to such person's office, or seeking to restrain or to enjoin the issuance, sale or delivery of the 2025A Bonds, or the pledge of Revenues, or in any way contesting or affecting the validity or enforceability of the 2025A Bonds, the Legal Documents, the General Indenture, or this Bond Purchase Agreement, or contesting in any way the completeness or accuracy of the Preliminary Official Statement or the Official Statement, or contesting the power of the Authority or its authority with respect to the 2025A Bonds, the General Indenture, the Legal Documents or this Bond Purchase Agreement.

- (p) A certificate dated the Closing Date and signed by an authorized official of GEDA to the effect that Appendix B to the Preliminary Official Statement, as of its date and as of the date hereof, and Appendix B to the Official Statement, as of its date and as of the Closing Date, did not and does not contain any untrue statement of a material fact or omitted or omits to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.
- (q) Certified copies of the CCU Resolution, the GEDA Resolution and the PUC Order.
- (r) A letter addressed to the Authority from Galardi Rothstein Group (the "Consulting Engineer"), dated as of [\_], 2025, to the effect that (i) the Consulting Engineer consents to (A) the use and inclusion of the Consulting Engineer's Report dated [\_], 2025 included as Appendix A to the Preliminary Official Statement and the Official Statement, and (B) the references to such firm in the Preliminary Official Statement and the Official Statement.
- (s) A Tax Certificate for the 2025A Bonds in form satisfactory to Bond Counsel.
- (t) Evidence that the 2025A Bonds have been assigned ratings of at least "[\_\_]" by S&P Global Ratings and at least "[\_\_]" by Moody's Investor's Service, Inc.
- (u) Such additional legal opinions, certificates, instruments and other documents as the Underwriters may reasonably request to evidence the truth and accuracy, as of the date hereof and as of the Closing Date, of the representations, warranties and covenants of the Authority contained herein and of the statements and information contained in the Official Statement and the due performance or satisfaction by the Authority at or prior to the Closing of all agreements then to be performed and all conditions then to be satisfied by the Authority.

All of the opinions, letters, certificates, instruments and other documents mentioned above or elsewhere in this Bond Purchase Agreement will be deemed to be in compliance with the provisions hereof if, but only if, they are in form and substance satisfactory to the Underwriters. The opinion of Bond Counsel that is first referred to in Section J.4(d) shall be deemed satisfactory if it is substantially in the form of Appendix E to the Official Statement.

If the Authority is unable to satisfy the conditions to the obligations of the Underwriters to purchase, to accept delivery of and to pay for the 2025A Bonds contained in this Bond Purchase Agreement, or if the obligations of the Underwriters to purchase, to accept delivery of and to pay for the 2025A Bonds are terminated for any reason permitted by this Bond Purchase Agreement, this Bond Purchase Agreement will terminate and neither the Underwriters nor the Authority will be under further obligation hereunder, except that the respective obligations of the Authority and the Underwriters set forth in Section M and the representations, warranties and covenants of the Authority contained in Section I shall continue in full force and effect, provided that such representations and warranties shall be understood to have been made as of the date of this Bond Purchase Agreement.

- L. <u>Termination</u>. The Underwriters shall have the right to cancel their obligation to purchase the 2025A Bonds if between the date hereof and the Closing:
  - 1. legislation shall have been newly enacted or introduced by the Congress of the United States or the legislature of the Government of Guam or shall have been reported out of committee of either body or be newly pending in committee of either body, or a decision shall have been rendered by a court of the United States or the Government of Guam or the Tax Court of the United States, or a ruling, resolution, regulation, or temporary regulation, release, or announcement shall have been made or shall have been proposed to be made by the Treasury Department of the United States or the Internal Revenue Service, or other federal or state authority, with respect to federal or state taxation upon revenues or other income of the general character of that to be derived by the Authority from its operations, or upon interest received on obligations of the general character of the 2025A Bonds that, in the Underwriters' reasonable judgment, materially adversely affects the marketability, or the market price of the 2025A Bonds, or the ability of the Underwriters to enforce contracts for sale of the 2025A Bonds; or
  - 2. there shall exist any event or circumstance that in the Underwriters' reasonable judgment makes either untrue or incorrect in any material respect any statement or information in the Official Statement or is not reflected in the Official Statement but should be reflected therein in order to make any statement of material fact therein in the light of the circumstances under which they were made not misleading in any material respect, and the effect of supplementing the Official Statement to supply such statement, correction or information is to materially adversely affect the marketability of the 2025A Bonds or the ability of the Underwriters to enforce contracts for the sale of the 2025A Bonds; or
  - 3. there shall have occurred: (A) any new material outbreak or escalation of hostilities (including, without limitation, an act of terrorism) involving the United States or the declaration by the United States of a national emergency or war occurs; or (B) the occurrence of any other calamity or crisis or any change in the financial, political or economic conditions in the United States or elsewhere (including, but not limited to, an escalation of hostilities or any calamity or crisis that existed prior to the date hereof), if the effect of any such event specified in clause (A) or (B), in the reasonable judgment of the Underwriters, materially adversely affects the marketability or the market price of the 2025A Bonds or the ability of the Underwriters to enforce contracts for the sale of the 2025A Bonds; or

- 4. there shall be in force a general suspension of trading on the New York Stock Exchange, or minimum or maximum prices for trading shall have been fixed and be in force, or maximum ranges for prices for securities shall have been required and be in force on the New York Stock Exchange, whether by virtue of determination by that Exchange or by order of the SEC or any other governmental authority having jurisdiction that, in the Underwriters' reasonable judgment, materially adversely affects the marketability or the market price of the 2025A Bonds or the ability of the Underwriters to enforce contracts for the sale of the 2025A Bonds; or
- 5. a general banking moratorium shall have been declared by federal or state authorities having jurisdiction and be in force that, in the Underwriters' reasonable judgment, materially adversely affects the marketability or the market price of the 2025A Bonds or the ability of the Underwriters to enforce contracts for the sale of the 2025A Bonds; or
- 6. legislation shall be enacted or actively considered for enactment, or a decision by a court of the United States shall be rendered, or a ruling, regulation, proposed regulation, or statement by or on behalf of the SEC or other governmental agency having jurisdiction of the subject matter shall be made, to the effect that the 2025A Bonds or any comparable securities of the Authority, any obligations of the general character of the 2025A Bonds, or the Legal Documents are not exempt from the registration, qualification or other requirements of the Securities Act or the Trust Indenture Act or would be in violation of any provision of the federal securities laws applicable to the 2025A Bonds; or
- 7. there shall have been since the date hereof any material adverse change in the affairs or financial condition (except for changes that the Official Statement discloses are expected to occur) of the Authority that in the Underwriters' reasonable judgment will materially adversely affect the marketability or the market price of the 2025A Bonds or the ability of the Underwriters to enforce contracts for the sale of the 2025A Bonds; or
- 8. there shall be established any new restriction on transactions in securities materially affecting the free market for securities (including the imposition of any limitation on interest rates) or the extension of credit by, or a change to the net capital requirements of, underwriters established by the New York Stock Exchange, the SEC, any other federal or Government of Guam agency or the Congress of the United States, or by Executive Order; or
- 9. a stop order, release, regulation, or no-action letter by or on behalf of the SEC or any other governmental agency having jurisdiction of the subject matter shall have been issued or made to the effect that the issuance, offering, or sale of the 2025A Bonds, including all the underlying obligations as contemplated hereby or by the Official Statement, or any document relating to the issuance, offering or sale of the 2025A Bonds, is or would be in violation of any provision of the federal securities laws at the Closing Date, including the Securities Act, the Exchange Act and the Trust Indenture Act; or
- 10. there shall have occurred after the signing hereof either a financial crisis or a default with respect to the debt obligations of the Authority or any political subdivision of the Government of Guam thereof or proceedings under the bankruptcy laws of the United

States or of the Authority shall have been instituted by the Authority or any agency or political subdivision of the Government of Guam, in either case the effect of which, in the reasonable judgment of the Underwriters, is such as to materially and adversely affect the market price or the marketability of the 2025A Bonds or the ability of the Underwriters to enforce contracts for the sale of the 2025A Bonds; or

- 11. there shall have occurred any downgrading or published negative credit watch or similar published information from a rating agency that at the date of this Bond Purchase Agreement has published a rating (or has been asked to furnish a rating) on the 2025A Bonds, which action reflects a change or possible change, in the ratings accorded any debt security of the Authority, including the 2025A Bonds; or
- 12. a material disruption in securities settlement, payment or clearance services shall have occurred and be continuing; or
- 13. any material change other than the inclusion of information permitted to be excluded by Rule 15c2-12 shall have been made between the Preliminary Official Statement and the Official Statement, except any change that has been accepted by the Underwriters.

## M. Payment of Expenses.

1. The Underwriters shall be under no obligation to pay, and the Authority shall pay from available funds or direct the Trustee under the Indenture to pay from the proceeds of the 2025A Bonds (to the extent permitted under applicable law) or from other funds of the Authority, certain expenses set forth in this Section that are incidental to the performance of the Authority's obligations hereunder, including but not limited to, all expenses in connection with the printing of the Preliminary Official Statement, the Official Statement, and any amendment or supplement to either thereof; all expenses in connection with the printing, issuance, and delivery of the 2025A Bonds; the fees and disbursement of Bond Counsel, GWA Counsel, GEDA Counsel and any auditors and accountants; the fees and disbursements of the Trustee and the Co-Trustee and their respective counsel; all expenses in connection with obtaining a rating or ratings for the 2025A Bonds; all expenses of the Authority in connection with the preparation, printing, execution, and delivery, and any recording or filing required by Bond Counsel, of the Legal Documents, this Bond Purchase Agreement, the fees of Digital Assurance Certification, L.L.C. related to the continuing disclosure undertaking compliance review; transportation, lodging and meals incurred by or on behalf of the Authority, GEDA and representatives thereof in connection with the sale, issuance and delivery of the 2025A Bonds; the Authority's administrative fees; GEDA's fees established by Guam law or rule; fees for preparation of a blue sky memorandum relating to the 2025A Bonds; and all other expenses and costs of the Authority incident to its obligations in connection with the authorization, issuance, sale, and distribution of the 2025A Bonds. In the event that the Underwriters incur or advance the cost of any expense for which the Authority is responsible hereunder, the Authority shall reimburse the Underwriters at or prior to Closing; if at Closing, reimbursement may be included in the expense component of the Underwriters' spread. The Authority acknowledges that a portion of the Underwriters' discount represents reimbursement of the Underwriters for reasonable expenses incurred by the Underwriters on behalf of the Authority and its employees which are directly related to the offering of the 2025A Bonds, including but not limited to, meals, transportation, lodging, closing dinner and related events for such employees. The Authority acknowledges that it has had an opportunity, in consultation with such advisors as it may deem appropriate, if any, to evaluate and consider the fees and expenses being incurred as part of the issuance of the Series 2025A Bonds.

2. The Underwriters shall pay, from the expense component of the Underwriters' discount, the costs of qualifying the 2025A Bonds for sale in various states or other jurisdictions chosen by the Underwriters, all advertising expenses in connection with the public offering of the 2025A Bonds, and all other expenses incurred by it or the other Underwriters in connection with the public offering and distribution of the 2025A Bonds, including the fees and disbursements of their counsel.

## N. Indemnification.

1. To the fullest extent permitted by applicable law, the Authority agrees to indemnify and hold harmless the Underwriters and each person, if any, who controls (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) the Underwriters and their directors, officers, agents, and employees against any and all losses, claims, damages, liabilities, and expenses arising out of a breach of any of the Authority's material representations included in this Bond Purchase Agreement (including a breach the result of which would require in connection with a public offering of the 2025A Bonds any security to be registered under the Securities Act or any indenture to be qualified under the Trust Indenture Act), or a breach of the Continuing Disclosure Agreement, or any statement or information in the Preliminary Official Statement or in the Official Statement (excluding therefrom the information under the heading "UNDERWRITING"; and the information about the ratings, rating agencies, and DTC and its book-entry system and such information in the appendices to the Preliminary Official Statement and the Official Statement that is or is alleged to be untrue or incorrect in any material respect, or any material omission or alleged material omission of any statement or information in the Preliminary Official Statement or the Official Statement which is necessary to make the statements therein, in the light of the circumstances in which they were made, not misleading. The foregoing indemnity agreement shall be in addition to any liability that the Authority may otherwise have.

The Underwriters will indemnify and hold harmless the Authority, each of its members, directors, officers, and employees, and each person who controls the Authority within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, to the same extent as the foregoing indemnity from the Authority to the Underwriters, but only with reference to written information relating to the Underwriters furnished by them specifically for inclusion in the Preliminary Official Statement or the Official Statement. This indemnity agreement will be in addition to any liability which the Underwriters may otherwise have. The Authority acknowledges that the statements under the caption "UNDERWRITING" in the Preliminary Official Statement and the Official Statement constitute the only information furnished in writing by or on behalf of the Underwriters for inclusion in the Preliminary Official Statement and the Official Statement.

2. In case any claim shall be made or action brought against an indemnified party for which indemnity may be sought against any indemnifying party, as provided above, the indemnified party shall promptly notify the indemnifying party in writing setting forth the particulars of such claim or action and the indemnifying party shall assume the defense thereof, including the retaining of counsel acceptable to such indemnified party and the payment of all expenses and shall have the right to negotiate and consent to settlement. An indemnified party shall have the right to retain separate counsel in any such action and to participate in the defense thereof but the fees and expenses of such counsel shall be at the expense of such indemnified party unless the employment of such counsel has been specifically authorized by the indemnifying party or the indemnifying party shall not have employed counsel reasonably acceptable to the indemnified party to have charge of the defense of such action or proceeding or the indemnified party shall have reasonably concluded that there may be defenses available to it which are different from or additional to those available to the indemnifying party (in which case the indemnifying party shall not have the right to direct the defense of such action or proceeding on behalf of the indemnified party), in any of which events, such legal or other expenses shall be borne by the indemnifying party. No party shall be liable for any settlement of any action effected without its consent, but if settled with the consent of the indemnifying party or if there is a final judgment for the plaintiff in any action with or without written consent of the indemnifying party, the indemnifying party agrees to indemnify and hold harmless the indemnified parties to the extent of the indemnities set forth above from and against any loss or liability by reason of such settlement or judgment.

If the indemnification provided for in Section N.1 is unenforceable or is unavailable to an indemnifying party in respect of any losses, claims, damages or liabilities (or actions in respect thereof) of the type subject to indemnification herein, then the indemnifying party shall, in lieu of indemnifying such person, contribute to the amount paid or payable by such person as a result of such losses, claims, damages or liabilities (or actions in respect thereof). In the case of the Authority and the Underwriters, contribution shall be in such proportion as is appropriate to reflect the relative benefits received by the Authority, on the one hand, and the Underwriters, on the other, from the sale of the 2025A Bonds. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law then the indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Authority, on the one hand, and the Underwriters, on the other, in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities (or action in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Authority, on the one hand, and the Underwriters, on the other, shall be deemed to be in the same proportion as the total proceeds of the sale of the 2025A Bonds paid to the Authority pursuant to Section A.1 hereof (before deducting expenses) bear to the underwriting discount received by the Underwriters (the difference between the initial public offering price for the 2025A Bonds appearing on the cover page of the Official Statement and the price to be paid therefor by the Underwriters as set forth therein under the caption "UNDERWRITING"). The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the

omission or alleged omission to state a material fact relates to information supplied by the Authority or the Underwriters and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such untrue statement or omission. The Authority and the Underwriters agree that it would not be just and equitable if contribution pursuant to this subsection were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to above in this subsection. The amount paid or payable by any person as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above shall be deemed to include any legal or other expenses reasonably incurred by such person in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this paragraph, however, the Underwriters shall not be required to contribute an amount in excess of the Underwriter's discount received by them pursuant to this Bond Purchase Agreement. No person guilty of fraudulent misrepresentation (within the meaning of Section 10(b) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

- O. No Advisory or Fiduciary Role. The Authority acknowledges and agrees that: (i) the purchase and sale of the 2025A Bonds pursuant to this Bond Purchase Agreement is an arm's-length commercial transaction between the Authority and the Underwriters, (ii) in connection therewith and with the discussions, undertakings and procedures leading up to the consummation thereof, each Underwriter is and has been acting solely as a principal and is not acting as the agent or fiduciary of the Authority, (iii) neither Underwriter has assumed an advisory or fiduciary responsibility in favor of the Authority with respect to the offering contemplated hereby or the discussions, undertakings and procedures leading thereto (irrespective of whether an Underwriter has provided other services or is currently providing other services to the Authority on other matters) and the Underwriters have no obligation to the Authority with respect to the offering contemplated hereby except the obligations expressly set forth in this Bond Purchase Agreement, and, (iv) the Authority has consulted its own legal, financial and other advisors to the extent it has deemed appropriate.
- P. <u>Notices</u>. All notices provided for in this Bond Purchase Agreement shall be made in writing either by actual delivery of the notice into the hands of the parties entitled thereto, by confirmed facsimile transmission, or by sending the notice by air courier or mailing by certified or registered mail, return receipt requested, in the United States mail to the address as stated below (or at such other address as may have been designated by written notice) of the party entitled thereto. The notice shall be deemed to be received in case of actual delivery on the date of its actual receipt by the party entitled thereto, in case of delivery by facsimile, on the date receipt is confirmed, in case of delivery by air courier on the date of delivery, and in case of mailing, on the date of receipt by United States mail, postage prepaid.

All communications hereunder, except as herein otherwise specifically provided, shall be in writing and mailed or delivered to the Authority at the address set forth above and to the Underwriters at the following addresses:

RBC Capital Markets, LLC 555 South Flower Street, Suite 820 Los Angeles, CA 90071 Attention: Greg Dawley, Managing Director

Raymond James & Associates, Inc. 10250 Constellation Boulevard, Suite 850 Los Angeles, CA 90067 Attention: Stephen Field, Managing Director

- Q. Governing Law. The validity, interpretation and performance of this Bond Purchase Agreement shall be governed by the laws of the state of New York, except that the authorization, execution and delivery by the Authority of this Bond Purchase Agreement and the Authority's obligations hereunder shall be governed by the laws of Guam.
- R. <u>Miscellaneous</u>. This Bond Purchase Agreement is made solely for the benefit of the signatories hereto (including the successors or assigns of the Underwriters) and no other person shall acquire or have any right hereunder or by virtue hereof. The term "successor" shall not include any holder of any 2025A Bonds merely by virtue of such holding. All representations, warranties, agreements, and indemnities contained in this Bond Purchase Agreement shall remain operative and in full force and effect, regardless of delivery of and payment for the 2025A Bonds, and any termination of this Bond Purchase Agreement.
- S. <u>Counterparts</u>. This Bond Purchase Agreement for the 2025A Bonds may be executed in counterparts with the same force and effect as if all signatures appeared on a single instrument.
- T. <u>Entire Agreement.</u> This Bond Purchase Agreement embodies the entire agreement and understanding between the parties relating to the subject matter hereof and supersedes all prior agreements and understandings related to such subject matter, and it is agreed that there are no terms, understandings, representations or warranties, express or implied, other than those set forth herein.

[Signature Page Follows]

	Very truly yours,		
	RBC CAPITAL MARKETS, LLC, as Underwriter		
	By: Greg Dawley, Managing Director RAYMOND JAMES & ASSOCIATES, INC., as Underwriter		
	By: Stephen Field, Managing Director		
ACCEPTED:			
GUAM WATERWORKS AUTHORITY			
By: Miguel C. Bordallo, P.E. General Manager			
Time:			
GUAM ECONOMIC DEVELOPMENT AUTHORITY			
By:			
Time:			

S-1

## APPENDIX A

## **MATURITY SCHEDULE**

\$[\_\_]
Guam Waterworks Authority Water and Wastewater System Revenue Bonds Series 2025A

Maturity	Principal	Interest	
(July 1)	Amount (\$)	<b>Rate (%)</b>	Yield (%) <sup>(1)</sup>

<sup>\*</sup> Term Bonds subject to mandatory sinking fund redemption.

\*\* Yield computed to first optional redemption date of July 1, 20[\_\_].

(1) Yields represent prices at which the first 10% of each maturity was sold to public.

## REDEMPTION PROVISIONS

Extraordinary Optional Redemption of the 2025A Bonds. The 2025A Bonds are subject to redemption on any date prior to their respective stated maturities, as a whole, or in part so that the reduction in Annual Debt Service for the 2025A Bonds for each Bond Year after such redemption shall be as nearly proportional as practicable, from and to the extent of proceeds received by the Authority due to a governmental taking of the System or portions thereof by eminent domain proceedings, if such amounts are not used for additions, improvements or extensions to the System, under the circumstances and upon the conditions and terms set forth in the 2005 Indenture, at the greater of par or Amortized Value, plus accrued interest to the date fixed for redemption, without premium. "Amortized Value" means on any Interest Payment Date, the then current value of the 2025A Bonds, amortizing the original issue premium over the period ending on the first call date using the constant yield method.

Optional Redemption of 2025A Bonds. The 2025A Bonds maturing on or after July 1, 20[\_\_], are subject to redemption prior to their respective stated maturities, at the option of the Authority, from any source of available moneys, on any date on or after July 1, 20[\_\_], as a whole, or in part by such maturities or portions of maturities as shall be determined by the Authority (or by lot within a maturity in the absence of such a determination), at a redemption price equal to the principal amount of each 2025A Bond called for redemption, plus interest accrued to the date fixed for redemption, without premium.

Mandatory Sinking Account Redemption of 2025A Bonds. The 2025A Bonds maturing on July 1, 20[\_\_] are subject to redemption prior to their stated maturity in part, by lot, on July 1 of each year from Mandatory Sinking Account Payments, commencing July 1, 20[\_\_], at a redemption price equal to their principal amount, plus accrued interest thereon to the date fixed for redemption, without premium, in the years and in the amounts as set forth below:

<b>20</b> [] Term Bond			
Date			
(July 1)	Amount		
† Maturity			

### **EXHIBIT A**

## CERTIFICATE OF THE UNDERWRITING GROUP REGARDING INITIAL REOFFERING PRICES

Guam Waterworks Authority Water and Wastewater System Revenue Bonds Series 2025A

The undersigned RBC Capital Markets, LLC and Raymond James & Associates, Inc. (together, the "Underwriting Group") hereby certify as set forth below with respect to the sale and issuance of the above-captioned obligations (the "Bonds"):

- 1. **Sale of the 10% Test Maturities.** As of the date of this certificate, for each Maturity of the Bonds listed as a "10% Test Maturity" in Schedule A attached hereto, the first price at which at least 10% of such Maturity was sold to the Public is the respective price listed in Schedule A attached hereto.
  - 2. Initial Offering Price of the Hold-the-Price Maturities.
- (a) The Underwriting Group offered the "Hold-the-Price Maturities" (as listed in Schedule A attached hereto) to the Public for purchase at the respective initial offering prices listed in Schedule A attached hereto (the "Initial Offering Prices") on or before the Sale Date.
- (b) With respect to the Hold-the-Price Maturities, as set forth in the Bond Purchase Agreement, dated \_\_\_\_\_\_, 2025, between the Underwriting Group and the Guam Waterworks Authority (the "Authority"), the Underwriting Group, has agreed in writing that (i) unsold Bonds of the Hold-the-Price Maturities would be retained by the Underwriting Group and not allocated to any other Underwriter, (ii) for each Hold-the-Price Maturity, the Underwriting Group would neither offer nor sell unsold Bonds of any Maturity of the Hold-the Price Maturities to any person at a price that is higher than the Initial Offering Price for such Maturity (the "hold-the-price rule"), and (iii) any selling group agreement shall contain the agreement of each dealer who is a member of the selling group and any retail distribution agreement, to comply with the hold-the-price rule.
- (c) Neither the Underwriting Group, nor any broker-dealer who is a party to a retail distribution agreement with any member of the Underwriting Group (if any) (provided that each member of the Underwriting Group is providing this representation only as to itself and any broker dealer who is a party to retail distribution agreement with such member), has offered or sold any unsold bonds of any Maturity of the Hold-the-Price Maturities to any person at a price that is higher than or a yield lower than the respective Initial Offering Prices for that Maturity of the Hold-the-Price Maturities during the Holding Period.
- 3. **Pricing Wire or Equivalent Communication**. A copy of the pricing wire or equivalent communication for the Bonds is attached to this certificate as Schedule B.
  - 4. **Defined Terms**.
- (a) 10% Test Maturities means those Maturities of the Bonds listed in Schedule A hereto as the "10% Test Maturities."

- (b) *Hold-the-Price* Maturities means those Maturities of the Bonds listed in Schedule A hereto as the "Hold-the-Price Maturities."
- (c) Holding Period means, with respect to a Hold-the-Price Maturity, the period starting on the Sale Date and ending on the earlier of (i) the close of the fifth business day after the Sale Date, or (ii) the date on which at least 10% of such Hold-the-Price Maturity was sold to the Public at prices that are no higher than or yields that are no lower than the Initial Offering Price for such Hold-the-Price Maturity.
- (d) *Maturity* means Bonds with the same credit and payment terms. Bonds with different maturity dates, or Bonds with the same maturity date but different stated interest rates, are treated as separate maturities.
- (e) *Public* means any person (including an individual, trust, estate, partnership, association, company, or corporation) other than an Underwriter or a Related Party to an Underwriter.
- (f) Related Party—a purchaser of any Bond is a "Related Party" to an Underwriter if the Underwriter and the purchaser are subject, directly or indirectly, to (i) at least 50% common ownership of the voting power or the total value of their stock, if both entities are corporations (including direct ownership by one corporation of another), (ii) more than 50% common ownership of their capital interests or profits interests, if both entities are partnerships (including direct ownership by one partnership of another), or (iii) more than 50% common ownership of the value of the outstanding stock of the corporation or the capital interests or profit interests of the partnership, as applicable, if one entity is a corporation and the other entity is a partnership (including direct ownership of the applicable stock or interests by one entity of the other)..
- (g) Sale Date means the first day on which there is a binding contract in writing for the sale of a Maturity of the Bonds. The Sale Date of the Bonds is \_\_\_\_\_\_, 2025.
- (i) Underwriter means (i) any person that agrees pursuant to a written contract with the Authority (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the Bonds to the Public, and (ii) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (i) of this paragraph to participate in the initial sale of the Bonds to the Public (including a member of a selling group or a party to a retail distribution agreement participating in the initial sale of the Bonds to the Public).

The representations set forth in this certificate are limited to factual matters only. Nothing in this certificate represents the Underwriting Group's interpretation of any laws, including specifically Sections 103 and 148 of the Internal Revenue Code of 1986, as amended, and the Treasury Regulations thereunder. The undersigned understands that the foregoing information will be relied upon by the Authority with respect to certain of the representations set forth in the Tax Certificate, dated \_\_\_\_\_, 2025, executed and delivered by the Authority with respect to the Bonds, and with respect to compliance with the federal income tax rules affecting the Bonds, and by Orrick, Herrington & Sutcliffe LLP, as Bond Counsel to the Authority, in connection with rendering their opinion that interest on the Bonds is excluded from gross income for federal income tax purposes, the preparation of the Internal Revenue Service Form 8038-G, and other federal income tax advice that Bond Counsel may give to the Authority from time to time relating to the Bonds.

	hed in this Certificate has been derived from other annot be independently verified by us, we have no ial respect.
, 2025	
	RBC CAPITAL MARKETS, LLC
	Authorized Representative
	RAYMOND JAMES & ASSOCIATES, INC.
	ByAuthorized Representative

## **SCHEDULE A**

## SALE PRICES OF THE 10% TEST MATURITIES AND INITIAL OFFERING PRICES OF THE HOLD-THE-PRICE MATURITIES (Attached)

# SCHEDULE B PRICING WIRE OR EQUIVALENT COMMUNICATION (Attached)

Exhibit A-5

## **EXHIBIT B**

Form of Supplemental Bond Counsel Opinion

[To follow]

Exhibit B-1

**EXHIBIT E** 

OH&S DRAFT – Distributed 05/31/25

### PRELIMINARY OFFICIAL STATEMENT DATED JUNE , 2025

## **NEW ISSUE – BOOK-ENTRY ONLY**

RATINGS: (See "RATINGS" herein)

In the opinion of Orrick, Herrington & Sutcliffe LLP, Bond Counsel to the Authority, based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the 2025A Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986. In the further opinion of Bond Counsel, interest on the 2025A Bonds is not a specific preference item for purposes of the federal individual alternative minimum tax. Bond Counsel observes that interest on the 2025A Bonds included in adjusted financial statement income of certain corporations is not excluded from the federal corporate alternative minimum tax. Bond Counsel is also of the opinion that, under 48 U.S.C. Section 1423a, interest on the 2025A Bonds is exempt from taxation by the Government of Guam, or by any state or territory of the United States or any political subdivision thereof, or by the District of Columbia. Bond Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the 2025A Bonds. See "TAX MATTERS."

S\_\_\_\_\_\_\_ GUAM WATERWORKS AUTHORITY
Water and Wastewater System Revenue Bonds
Series 2025A

**Dated: Dates of Delivery** 

Due: As shown on inside front cover

This cover page contains certain information for quick reference only. It is not a summary of this issue. Investors must read this entire Official Statement to obtain information essential to making an informed investment decision. Capitalized terms not defined on this cover page are defined inside.

The Guam Waterworks Authority Water and Wastewater System Revenue Bonds, Series 2025A (the "2025A Bonds") mature on the dates and in the amounts and will bear interest at the rates per annum listed on the inside front cover. Interest on the 2025A Bonds will be payable on January 1 and July 1 of each year, commencing January 1, 2026.

The 2025A Bonds are subject to mandatory, optional and extraordinary optional redemption prior to maturity.

The 2025A Bonds are authorized to be issued pursuant to Chapter 14 of Title 12 of the Guam Code Annotated, as amended (the "Act"). The 2025A Bonds will be issued pursuant to an Indenture, dated as of December 1, 2005, as amended and supplemented (the "2005 Indenture"), including as amended and supplemented by the Eleventh Supplemental Indenture, to be dated as of July 1, 2025, and the Twelfth Supplemental Indenture, to be dated as of July 1, 2025 (the "Twelfth Supplemental Indenture"), each by and among Guam Waterworks Authority (the "Authority"), Bank of Guam as Trustee and as Depositary (the "Trustee"), and U.S. Bank Trust Company, National Association, as Co-Trustee and Paying Agent (the "Co-Trustee"), as successor to U.S. Bank National Association. The issuance, sale and delivery of the 2025A Bonds have been approved by the Board of Directors of the Guam Economic Development Authority ("GEDA") and by the Consolidated Commission on Utilities, the governing board of the Authority. The issuance, terms and conditions of the 2025A Bonds are authorized pursuant to Public Law No. 37-103, which the Legislature of Guam passed on May 31, 2024. The terms of the 2005 Indenture and the amounts and terms of the 2025A Bonds have been approved by the Guam Public Utilities Commission.

The Authority is issuing the 2025A Bonds to (i) fund capital improvements to the Authority's water and wastewater systems, (ii) fund a deposit to the Bond Reserve Fund, and (iii) pay costs incurred in connection with the issuance of the 2025A Bonds.

The Bonds (as herein defined, including but not limited to the 2025A Bonds) are limited obligations of the Authority payable solely from and secured by a pledge of Revenues (as defined in the 2005 Indenture and more particularly described herein) consisting primarily of all gross income and revenue received by the Authority from the ownership or operation of the Authority's System, all as more particularly described herein, subject to the provisions of the 2005 Indenture permitting the application of Revenues for or to the purposes (including payment of Operation and Maintenance Expenses), and exclusive of certain surcharges, all as more particularly described herein.

Upon purchasing the 2025A Bonds, pursuant to the Twelfth Supplemental Indenture, the initial purchasers of the 2025A Bonds will be deemed to have consented to certain amendments to the 2005 Indenture. After the Transition Date, such amendments will be binding upon the initial purchasers and any subsequent owners of the 2025A Bonds. See "PROPOSED 2005 INDENTURE AMENDMENTS."

The Bonds are not a legal or equitable pledge, charge, lien or encumbrance upon any property of the Authority or upon any of its income, receipts or revenues except the Revenues pledged to the payment thereof as provided in the 2005 Indenture. Neither the Government of Guam (the "Government") nor any political subdivision thereof is obligated to pay the principal of, redemption price, if applicable, or interest on the Bonds, except from such Revenues, and none of the Authority, the Government or any political subdivision thereof has pledged its faith or credit to the payment of the principal of, redemption price, if applicable, or interest on the 2025A Bonds.

The 2025A Bonds will be issued as fully registered bonds and, when issued, will be registered in the name of Cede & Co., as nominee of The Depository Trust Company ("DTC"), New York, New York. DTC will act as securities depository of the 2025A Bonds. Individual purchases of the 2025A Bonds will be made in book-entry form only. The 2025A Bonds will be issued only in denominations of \$5,000 or any integral multiple thereof. Payments of principal of, redemption price, if applicable, and interest on the 2025A Bonds are to be made to purchasers

<sup>\*</sup> Preliminary, subject to change.

by DTC through DTC participants. See APPENDIX G – "DTC AND ITS BOOK-ENTRY ONLY SYSTEM." Purchasers will not receive physical delivery of 2025A Bonds.

Investment in the 2025A Bonds involves risks which may not be appropriate for certain investors. See "CERTAIN INVESTMENT CONSIDERATIONS" for a discussion of certain factors that should be considered, in addition to the other matters set forth herein, in evaluating the investment quality of the 2025A Bonds.

The 2025A Bonds are offered when, as and if issued and received by the Underwriters, subject to the approval of legality by Orrick, Herrington & Sutcliffe LLP, Bond Counsel to the Authority. Certain legal matters will be passed upon for the Authority by Theresa G. Rojas, counsel for the Authority, and by Orrick, Herrington & Sutcliffe LLP as disclosure counsel to the Authority. Montague DeRose and Associates, LLC, is serving as Municipal Advisor to the Authority for this financing. Certain legal matters will be passed upon for the Underwriters by their counsel, Hawkins Delafield & Wood LLP. It is expected that the 2025A Bonds in book-entry form will be available for delivery through the DTC book-entry system on or about July , 2025\*.

**RBC Capital Markets** 

**Raymond James** 

\_, 2025

#### MATURITY SCHEDULE\*

## Guam Waterworks Authority Water and Wastewater System Revenue Bonds Series 2025A

Maturity Date (July 1)	Principal Amount	Interest Rate	Price/Yield	CUSIP No. 40065F <sup>†</sup>
2031			_	
2032				
2033				
2034				
2035				
2036				
2037				
2038				
2039				
2040				
2041				
2042				
2043				
2044				
2045				
\$	% Term Bonds of	lue July 1, 2050, Price/Yield _	%, CUSIP No. 40	065F
\$	% Term Bonds of	lue July 1, 2055, Price/Yield _	%, CUSIP No. 40	065F

<sup>\*</sup> Preliminary, subject to change.

<sup>&</sup>lt;sup>†</sup> CUSIP is a registered trademark of the American Bankers Association. CUSIP data herein is provided by CUSIP Global Services ("CGS"), which is managed on behalf of the American Bankers Association by FactSet Research Systems Inc. This data is not intended to create a database and does not serve in any way as a substitute for the CGS data base. CUSIP numbers have been assigned by an independent company not affiliated with either the Authority or GEDA and are provided solely for convenience and reference. The CUSIP numbers for a specific maturity or maturities are subject to change after the issuance of the 2025A Bonds. None of the Authority, GEDA or the Underwriters takes responsibility for the accuracy of the CUSIP numbers, and no representation is made as to their correctness on the applicable 2025A Bond certificates or in this Official Statement.

#### CONSOLIDATED COMMISSION ON UTILITIES

Francis E. Santos Chairman

Pedro Roy Martinez Vice Chairman

Melvin F. Duenas Secretary Michael Limtiaco Commissioner

Simon A. Sanchez II Commissioner

#### **GUAM WATERWORKS AUTHORITY**

Miguel C. Bordallo, P.E. General Manager

Taling M. Taitano, CPA, CGFM, CGMA Chief Financial Officer Thomas F. Cruz, P.E. Assistant General Manager, Operations

Brett E. Railey, P.E. Assistant General Manager, Engineering Paul J. Kemp Assistant General Manager, Compliance and Safety

Christopher M. Budasi Assistant General Manager, Administration & Support Theresa G. Rojas, Esq. General Counsel

#### **GOVERNMENT OF GUAM**

Lourdes A. Leon Guerrero Governor

> Joshua F. Tenorio Lieutenant Governor

#### GUAM ECONOMIC DEVELOPMENT AUTHORITY

Christina D. Garcia Chief Executive Officer / Administrator

> Carlos Bordallo Deputy Administrator

Public Finance Manager

#### SPECIAL SERVICES

Bond Counsel and Disclosure Counsel Orrick, Herrington & Sutcliffe LLP

Trustee and Depositary
Bank of Guam
Hagåtña, Guam

Independent Auditors
Ernst & Young LLP

 ${\it Municipal Advisor} \\ {\it Montague DeRose and Associates, LLC}$ 

Co-Trustee and Paying Agent
U.S. Bank Trust Company, National Association
Los Angeles, California

Dissemination Agent
Digital Assurance Certification, L.L.C.
Winter Park, Florida

The Underwriters have provided the following sentence for inclusion in this Official Statement: The Underwriters have reviewed the information in this Official Statement in accordance with and as part of their responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

No dealer, broker, salesperson or other person has been authorized by the Authority or the Underwriters to give any information or to make any representations other than those contained herein and, if given or made, such other information or representations must not be relied upon as having been authorized by any of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the 2025A Bonds by any person in any jurisdiction in which it is unlawful for such person to make such an offer, solicitation or sale.

This Official Statement is not to be construed as a contract with the purchasers of the 2025A Bonds. Statements contained in this Official Statement that involve estimates, forecasts or matters of opinion, whether or not expressly so described herein, are intended solely as such and are not to be construed as representations of fact.

Certain statements contained or incorporated by reference in this Official Statement are not intended to reflect historical facts but are estimates and "forward-looking statements." No assurance can be given that the future results discussed herein will be achieved, and actual results may differ materially from the expectations or forecasts described herein. In this respect, the words "estimate," "project," "forecast," "anticipate," "expect," "assume," "intend," "believe" and similar expressions are intended to identify forward-looking statements. All projections, forecasts, assumptions, expressions of opinion, estimates and other forward-looking statements are expressly qualified in their entirety by the cautionary statements set forth in this Official Statement. The Authority does not plan to issue any updates or revisions to such forward-looking statements whether or not its expectations are realized, or any events, conditions or circumstances on which such statements are based, do or do not occur.

The information set forth in this Official Statement has been furnished by the Authority and other sources which are believed to be reliable, but it is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation by, the Underwriters. The information and expressions of opinion stated herein are subject to change without notice and neither delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the information or opinions stated herein or in the affairs of the Authority since the date hereof.

The 2025A Bonds have not been registered under the Securities Act of 1933, as amended, in reliance upon an exemption contained in such act. The 2025A Bonds have not been registered or qualified under the securities laws of any state.

In connection with this offering the Underwriters may over-allot or effect transactions which stabilize or maintain the market price of the 2025A Bonds offered hereby at a level above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.

## TABLE OF CONTENTS

INTRODUCTION	1
General	
The 2025A Bonds	
Security and Sources of Payment for the 2025A Bonds The Authority and the System	2
Consultant's Feasibility Study	2
Investment Considerations	4
Continuing Disclosure	4
Forward-Looking Statements	
Miscellaneous	4
2005 Indenture Amendments Effected by Twelfth Supplemental Indenture	4
PLAN OF FINANCE	
ESTIMATED SOURCES AND USES OF FUNDS	5
THE 2025A BONDS	
General	
Redemption of the 2025A Bonds	
Trustee, Co-Trustee, Registrar and Paying Agent	
Book-Entry System	
DEBT SERVICE SCHEDULE SECURITY AND SOURCES OF PAYMENT FOR THE	9
BONDS	10
Pledge of Revenues	
Allocation of Revenues	
Rate Covenant	12
Bond Reserve Fund	
Outstanding Bonds	
Additional Bonds	
Parity Payment Agreements	
Events of Default and Remedies; No Acceleration	16
Depositaries for Funds and Accounts	16
PROPOSED 2005 INDENTURE AMENDMENTS	16
THE AUTHORITY	
General	
Consolidated Commission on Utilities	18
THE SYSTEM	
The Water System	
The Wastewater System	
One-Guam Initiative	
Customers	
New Water and Sewer Installations	
System Development Charges	
Rates and Charges	
Billing, Collections and Enforcements	
Uniform Disconnection Policy	
Debt Service Coverage	
Rate Stabilization Fund	
2005 Indenture Required Reserves	41
Working Capital Reserve for Operations and Maintenance	41
Security Measures	
Labor and Employee Relations	
Retirement Fund and Other Post-Employment Benefits	
Liquidity	
REGULATORY ENVIRONMENT	47
Regulation of Ratemaking	50
FUTURE SYSTEM CAPITAL REQUIREMENTS	
Water Resources Master Plan Updates	51
Capital Improvement Program	51
U.S. Military Realignment	53
HISTORICAL AND PROJECTED OPERATING	٠.
RESULTS	
Historical Operating Results	
CERTAIN INVESTMENT CONSIDERATIONS	
General	
Limitations on Remedies	
Consultant's Feasibility Study	59

Guam Economy; Impact of Tourism and Military	
Presence	6
Federal Policy Risks	
Federal Legislation	
Worldwide Health Concerns	
Uncertainties Relating to Political and Military Actions	6
2011 Court Order with US EPA	6
2024 Partial Consent Decree with US EPA	6
Typhoons and Earthquakes	6
Climate Change, Risk of Sea-Level Rise and Flooding	
Damage	6
Rates	
Cybersecurity	6
Insurance	
Government Regulation	6
Implementation of Capital Improvement Program	6
Secondary Treatment Requirements Under NPDES	
Permit	6
LITIGATION	6
No Litigation Relating to the 2025A Bonds	6
Core Tech International Corporation Litigation	
Ordot Landfill Litigation	6
Other Litigation Relating to the Authority and the	
System	6
TAX MATTERS	6
UNDERWRITING	
CONSULTANT'S FEASIBILITY STUDY	7
FINANCIAL STATEMENTS	7
CERTAIN LEGAL MATTERS	
AVAILABLE INFORMATION	
RATINGS	
CONTINUING DISCLOSURE	
MUNICIPAL ADVISOR	
MISCELLANEOUS	7
APPENDIX A – CONSULTANT'S FEASIBILITY	
STUDY	A-
APPENDIX B – GENERAL INFORMATION	
REGARDING THE TERRITORY OF GUAM	D
APPENDIX C – FINANCIAL STATEMENTS FOR THE	Б-
	~
FISCAL YEAR ENDED SEPTEMBER 30, 2024	C-
APPENDIX D – SUMMARY OF CERTAIN	
PROVISIONS OF THE 2005 INDENTURE AND THE	
TWELFTH SUPPLEMENTAL INDENTURE	D-
APPENDIX E – PROPOSED FORM OF OPINION OF	
BOND COUNSEL	E-
APPENDIX F – PROPOSED FORM OF CONTINUING	
DISCLOSURE AGREEMENT	F-
APPENDIX G – DTC AND ITS BOOK-ENTRY ONLY	
SYSTEM	G-
O I O I DITI	

## S\_\_\_\_\_\* GUAM WATERWORKS AUTHORITY Water and Wastewater System Revenue Bonds Series 2025A

#### INTRODUCTION

#### General

The purpose of this Official Statement, which includes the cover page, table of contents and appendices hereto (collectively, the "Official Statement"), is to provide information in connection with the offering by the Guam Waterworks Authority (the "Authority") of the \$\_\_\_\_\* Guam Waterworks Authority Water and Wastewater System Revenue Bonds, Series 2025A (the "2025A Bonds").

This Introduction is not a summary of this Official Statement, but is only a brief description of, and is qualified by, more complete and detailed information contained in this Official Statement. This Introduction should not be relied upon to provide all of the information necessary to make an informed decision about purchasing the 2025A Bonds. A full review should be made of this entire Official Statement. The offering of 2025A Bonds to potential investors is made only by means of this entire Official Statement.

Capitalized terms used herein that are not otherwise defined shall have the meanings set forth in APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE."

#### The 2025A Bonds

The Authority is issuing the 2025A Bonds to (i) fund capital improvements to the Authority's water and wastewater systems, (ii) fund a deposit to the Bond Reserve Fund, and (iii) pay costs incurred in connection with the issuance of the 2025A Bonds.

The 2025A Bonds are authorized to be issued pursuant to the Act (as defined herein). The 2025A Bonds will be issued pursuant to an Indenture, dated as of December 1, 2005, as amended and supplemented (the "2005 Indenture"), including as amended and supplemented by the Eleventh Supplemental Indenture, to be dated as of July 1, 2025 (the "Eleventh Supplemental Indenture"), and the Twelfth Supplemental Indenture, to be dated as of July 1, 2025 (the "Twelfth Supplemental Indenture"), each by and among Guam Waterworks Authority (the "Authority"), Bank of Guam as Trustee and as Depositary (the "Trustee"), and U.S. Bank Trust Company, National Association, as Co-Trustee and Paying Agent (the "Co-Trustee"), as successor to U.S. Bank National Association.

The Bonds previously issued by the Authority pursuant to the 2005 Indenture are referred to collectively herein as the "Outstanding Bonds," which, following the July 1, 2025, maturity date, will be outstanding in the aggregate principal amount of \$573,790,000. The Outstanding Bonds and the 2025A Bonds, together with any additional bonds that may be issued pursuant to, and outstanding at any given time under, the 2005 Indenture, are herein referred to as "Bonds." After giving effect to the issuance of the 2025A Bonds, the Bonds will be outstanding in the aggregate principal amount of \$\_\_\_\_\_\_.

The issuance, terms and conditions of the 2025A Bonds are authorized pursuant to Public Law No. 37-103,
which the Legislature of Guam (the "Guam Legislature") passed on May 31, 2024. The Consolidated Commission
on Utilities (the "CCU") has approved the issuance, sale and delivery of the 2025A Bonds pursuant to Resolution
No. 27-FY2025, adopted on, 2025. The Board of Directors of the Guam Economic Development Authority
("GEDA") has approved the issuance and sale of the 2025A Bonds pursuant to Resolution No. 25, adopted on
, 2025. The terms of the 2005 Indenture and the aggregate principal amount and terms of the 2025A Bonds

<sup>\*</sup> Preliminary, subject to change.

have been approved by the Guam Public Utilities Commission (the "PUC") pursuant to Docket No. 25-\_\_ adopted on \_\_\_, 2025.

#### Security and Sources of Payment for the 2025A Bonds

The Bonds, including the 2025A Bonds, are limited obligations of the Authority payable solely from and secured solely by a pledge of Revenues (as defined in the 2005 Indenture and described herein) consisting primarily of all gross income and revenue received by the Authority from the ownership or operation of the Authority's water and wastewater systems (collectively, the "System"), subject to the provisions of the 2005 Indenture permitting the application of Revenues for or to the purposes (including payment of Operation and Maintenance Expenses) and on the terms and conditions set forth in the 2005 Indenture. The Bonds are not a legal or equitable pledge, charge, lien or encumbrance upon any property of the Authority or upon any of its income, receipts or revenues except the Revenues pledged to the payment thereof as set forth in the 2005 Indenture.

The 2005 Indenture prohibits the issuance of any bonds or obligations payable from Revenues or secured by a pledge, lien or charge upon Revenues superior to the Bonds, and permits issuance of obligations on a parity with the Bonds only in accordance with the 2005 Indenture. The 2005 Indenture does not prohibit the incurrence of indebtedness secured by subordinate liens on Revenues.

Neither the Government of Guam (the "Government") nor any political subdivision thereof is obligated to pay the principal of, redemption price, if applicable, or interest on the Bonds, except from such Revenues, and neither the Authority nor the Government or any political subdivision thereof has pledged its faith or credit to the payment of the principal of, redemption price, if applicable, or interest on the Bonds.

See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Pledge of Revenues" and "- Allocation of Revenues" and "REGULATORY ENVIRONMENT – Regulation of Ratemaking."

#### The Authority and the System

In 2002, pursuant to Public Law 26-76, the Authority was converted from a government agency to a Guam public corporation organized and existing under Chapter 14 of Title 12 of the Guam Code Annotated, as amended (the "Act"). The Authority is authorized to operate and maintain the System for the island of Guam.

The Authority is governed by the CCU, which acts as the governing board of the Authority and the Guam Power Authority ("GPA"). The CCU was created in 2002 and consists of five elected members. The CCU makes decisions regarding policies, management, budgeting and financing of the Authority's operations. Certain actions, however, such as issuing bonds for financing utility capital projects, also require the approval of the Guam Legislature and the PUC. In addition, ratemaking by the CCU is subject to the approval of the PUC, as the regulatory ratemaking body. The Authority may not enter into any contractual agreements or obligations which could increase rates and charges without the prior written approval of the PUC.

The Authority works to provide efficient and reliable service to its customers, operating as a self-supporting utility while meeting regulatory requirements. The Authority is subject to federal and Guam regulations governing water supply and wastewater treatment. Wastewater treatment and disposal must comply with the water quality standards in the federal Clean Water Act, as amended (the "Clean Water Act" or the "CWA"). The drinking water standards promulgated in the federal Safe Drinking Water Act, as amended (the "Safe Drinking Water Act" or the "SDWA"), are the primary requirements for water supply.

Historically, the Authority had difficulty complying with CWA and SDWA regulations prior to 2010. The Authority's previous failure to meet all of the CWA and SDWA standards resulted in the U.S. Environmental Protection Agency (the "US EPA") bringing suit against the Authority in the U.S. District Court of Guam (the "Guam District Court") in 2002. In 2003, the Authority and the US EPA entered into a Stipulated Order for Preliminary Relief, which was subsequently amended (as amended, the "2003 Stipulated Order"), that required the Authority to make certain improvements to the System and to undertake certain planning measures by specific dates. In 2011, the Guam District Court issued an Order for Preliminary Relief (the "2011 Court Order") establishing

new deadlines for unfinished projects and certain additional actions and improvements. The 2011 Court Order superseded the 2003 Stipulated Order and all prior orders. The last remaining project under the 2011 Court Order is completion of the replacement, rehabilitation or reconstruction of 12 storage tanks in accordance with the hydraulic assessment approved by the US EPA and the Guam District Court in 2023. The completion deadline for this last project, which the Authority expects to meet, is December 31, 2025. For more information about the storage tanks and hydraulic analysis, see "THE SYSTEM – The Water System – *Water Distribution System* – Reservoirs." For more information about the 2003 Stipulated Order and the 2011 Court Order, see "REGULATORY ENVIRONMENT – Environmental Regulations – 2003 Stipulated Order and 2011 Court Order."

On January 31, 2024, the US EPA filed a complaint in the Guam District Court alleging that the Authority violated certain conditions and limitations of the National Pollutant Discharge Elimination System ("NPDES") permits that the US EPA issued to the Authority pursuant to the CWA. The Authority and the US EPA have entered into a consent decree to address certain claims alleged in the complaint (the "2024 Partial Consent Decree"), which was signed into order by the Guam District Court on August 9, 2024. The 2024 Partial Consent Decree requires the Authority to make certain improvements to the System (with the goal of reducing sanitary sewer overflows) and to undertake certain planning measures by specific dates in the next 10 years. Such improvements primarily relate to the wastewater collection system, including pipelines, pump stations, maintenance and other operational program improvements, as well as planning studies for secondary wastewater treatment at the Hagåtña WWTP.

For more information about the 2024 Partial Consent Decree, see "REGULATORY ENVIRONMENT – Environmental Regulations – 2024 Partial Consent Decree" and APPENDIX A – "Consultant's Feasibility Study – Wastewater System – Wastewater System Overview – 2024 GWA Wastewater Partial Consent Decree" and " – Regulatory and Legal Issues – Partial Consent Decree."

## Consultant's Feasibility Study

The Authority has retained Galardi Rothstein Group (the "Consultant") to prepare a Consultant's Feasibility Study (the "Feasibility Study") on the financial feasibility of the 2025A Bonds, the proceeds of which will be used to finance a portion of the Authority's capital program. The Feasibility Study includes the following: a description of the Authority's organization, its water and wastewater System, and an independent review of the conditions of System facilities; a review of regulatory and legal issues that present risks that could have a material impact on the Authority's financial performance; a summary of the Authority's capital project planning and major project categories, a forecast of capital program encumbrance requirements by project category and forecast year, and a listing of expected sources of capital project encumbrance funding by forecast year. The Feasibility Study provides a review of recent System financial performance and a detailed projection of financial operating results that demonstrate the financial feasibility of the 2025A Bonds.

The Feasibility Study is included in this Official Statement as APPENDIX A. It is an integral part of this Official Statement and should be read in its entirety prior to making an investment decision. The Feasibility Study will not be revised subsequent to its date of publication (June 1, 2025) to reflect the final terms of the 2025A Bonds. See "CONSULTANT'S FEASIBILITY STUDY" and APPENDIX A – "CONSULTANT'S FEASIBILITY STUDY."

No assurance can be given that the projections and expectations discussed in the Feasibility Study will be achieved or that the assumptions upon which the projections and conclusions are based will be realized. Differences between the projections and actual results may be material. The financial projections in the Feasibility Study are based upon certain information and assumptions that were reviewed with and agreed to by the Authority.

The Feasibility Study relies on information provided by the Authority and a review of the System and the capital program provided by the engineering firm, Duenas Camacho & Associates. For a description of the qualifications of the Consultant and Duenas Camacho & Associates, see APPENDIX A – "CONSULTANT'S FEASIBILITY STUDY – Introduction – Firm Qualifications."

#### **Investment Considerations**

There are important investment considerations and risks associated with the purchase of the 2025A Bonds. See "CERTAIN INVESTMENT CONSIDERATIONS" for a discussion of some of these considerations and risks. Any one or more of the considerations and risks discussed, and others, could lead to a decrease in the market value of and/or the ability to sell the 2025A Bonds in the secondary market. Potential purchasers of the 2025A Bonds are advised to review this entire Official Statement carefully.

#### **Continuing Disclosure**

As a condition to the issuance and sale of the 2025A Bonds, the Authority will covenant for the benefit of the holders and beneficial owners of the 2025A Bonds to provide annually certain financial information and operating data and to provide notice of the occurrence of certain enumerated events to assist the Underwriters in complying with the Securities and Exchange Commission's Rule 15c2-12 under the Securities Exchange Act of 1934, as amended ("Rule 15c2-12"). See "CONTINUING DISCLOSURE" and APPENDIX F – "PROPOSED FORM OF CONTINUING DISCLOSURE AGREEMENT."

## **Forward-Looking Statements**

Certain statements contained or incorporated by reference in this Official Statement are not intended to reflect historical facts but are estimates and "forward-looking statements." No assurance can be given that the future results discussed herein will be achieved, and actual results may differ materially from the expectations or forecasts described herein. In this respect, the words "estimate," "project," "forecast," "anticipate," "expect," "assume," "intend," "believe" and similar expressions are intended to identify forward-looking statements. All projections, forecasts, assumptions, expressions of opinion, estimates and other forward-looking statements are expressly qualified in their entirety by the cautionary statements set forth in this Official Statement. The Authority does not plan to issue any updates or revisions to such forward-looking statements whether or not its expectations are realized, or any events, conditions or circumstances on which such statements are based, do or do not occur.

#### Miscellaneous

Brief descriptions of the 2025A Bonds, the Authority and the System are provided below. Such descriptions do not purport to be comprehensive or definitive. All references to the 2025A Bonds and the 2005 Indenture are qualified in their entirety by reference to the forms thereof.

The information herein is subject to change without notice, and neither the delivery of this Official Statement nor any sale made with respect hereto shall, under any circumstances, create any implication that there has been no change in the affairs of the Authority or the System since the date hereof.

This Official Statement is not to be construed as a contract or agreement between the Authority and the purchasers or owners of any of the 2025A Bonds.

## 2005 Indenture Amendments Effected by Twelfth Supplemental Indenture

The Twelfth Supplemental Indenture will amend and restate the 2005 Indenture in the event that the owners of at least 60% in Accreted Value of the Bonds then Outstanding under the 2005 Indenture consent to the terms of the Twelfth Supplemental Indenture and certain other requirements of the 2005 Indenture are satisfied. Should such requirements be satisfied, the Transition Date (as defined herein) will occur. Upon purchasing the 2025A Bonds, pursuant to the Twelfth Supplemental Indenture, the initial purchasers of the 2025A Bonds will be deemed to have consented to the amendments to the 2005 Indenture contained in the Twelfth Supplemental Indenture. Upon the issuance of the 2025A Bonds, the owners of approximately \_\_% in Accreted Value of the Bonds then Outstanding under the 2005 Indenture will have consented to the 2005 Indenture Amendments. After the Transition Date, such amendments will be binding upon the initial purchasers and any subsequent owners of the 2025A Bonds. See "PROPOSED 2005 INDENTURE AMENDMENTS."

## PLAN OF FINANCE\*

The Authority is issuing the 2025A Bonds to (i) fund capital improvements to the Authority's water and wastewater systems, (ii) fund a deposit to the Bond Reserve Fund, and (iii) pay costs incurred in connection with the issuance of the 2025A Bonds.

## ESTIMATED SOURCES AND USES OF FUNDS

The proceeds of the 2025A Bonds are expected to be applied as shown below:

Sources:	
Principal Amount	\$
[Plus/Less] [Net] Original Issue [Premium/Discount]	
Total Sources	\$
Uses:	
Deposit to Series 2025A Construction Account (Project Costs)	\$
Deposit to Bond Reserve Fund	
Costs of Issuance <sup>(1)</sup>	
Total Uses	\$

Includes Underwriters' discount, Trustee and Co-Trustee fees, legal fees and expenses, rating agency fees, printing costs and other miscellaneous costs of issuance.

(Remainder of Page Intentionally Left Blank)

Preliminary, subject to change.

#### THE 2025A BONDS

#### General

When issued, the 2025A Bonds will be dated their respective date of delivery and will bear interest at the rates per annum and mature, subject to prior redemption, on the dates and in the principal amounts set forth on the inside cover page of this Official Statement. Interest on the 2025A Bonds will be payable on January 1 and July 1 of each year (each an "Interest Payment Date"), commencing January 1, 2026.

Interest will accrue on the 2025A Bonds on the basis of a 360-day year consisting of twelve 30-day months. Each 2025A Bond will bear interest from the Interest Payment Date next preceding the date of authentication thereof, except that: (1) 2025A Bonds authenticated during the period from the Record Date immediately preceding an Interest Payment Date to such Interest Payment Date, inclusive, will bear interest from such Interest Payment Date; and (2) 2025A Bonds authenticated on or prior to the Record Date for the applicable first Interest Payment Date for the 2025A Bonds will bear interest from their date of delivery; provided, however, that if interest on the 2025A Bonds then Outstanding shall be in default at the time of authentication of any 2025A Bond, such 2025A Bond will bear interest from the applicable Interest Payment Date to which interest has previously been paid or made available for payment on the 2025A Bonds then Outstanding. The 2025A Bonds will be issued in denominations of \$5,000 and integral multiples thereof.

The 2025A Bonds when issued will be registered in the name of Cede & Co., as registered owner and nominee of The Depository Trust Company ("DTC"), New York, New York. DTC will act as securities depository for the 2025A Bonds. Individual purchases may be made only in book-entry form, and purchasers will not receive certificates representing their interest in the 2025A Bonds purchased. Except as described under "TAX MATTERS," so long as Cede & Co. is the registered owner of the 2025A Bonds, as nominee of DTC, references herein to "Bondholders" or to "registered owners" of the 2025A Bonds mean Cede & Co. and not the Beneficial Owners of the 2025A Bonds. In this Official Statement, the term "Beneficial Owner" means the person for whom a DTC participant acquires an interest in the 2025A Bonds.

So long as DTC, or its nominee Cede & Co. (or such other nominee as an authorized officer of DTC may request), is the registered owner of all 2025A Bonds, all payments of principal of, redemption price, if applicable, and interest on the 2025A Bonds are to be made directly to DTC, which, in turn, is to remit such amounts to the Direct and Indirect Participants for subsequent distribution to the Beneficial Owners of the 2025A Bonds. See APPENDIX G – "DTC AND ITS BOOK-ENTRY ONLY SYSTEM."

## Redemption of the 2025A Bonds\*

Extraordinary Optional Redemption of the 2025A Bonds. The 2025A Bonds are subject to redemption on any date prior to their respective stated maturities, as a whole, or in part so that the reduction in Annual Debt Service for the 2025A Bonds for each Bond Year after such redemption shall be as nearly proportional as practicable, from and to the extent of proceeds received by the Authority due to a governmental taking of the System or portions thereof by eminent domain proceedings, if such amounts are not used for additions, improvements or extensions to the System, under the circumstances and upon the conditions and terms set forth in the 2005 Indenture, at the greater of par or Amortized Value, plus accrued interest to the date fixed for redemption, without premium. "Amortized Value" means on any Interest Payment Date, the then current value of the 2025A Bonds, amortizing the original issue premium over the period ending on the first call date using the constant yield method.

Optional Redemption of 2025A Bonds. The 2025A Bonds maturing on or after July 1, 20\_\*, are subject to redemption prior to their respective stated maturities, at the option of the Authority, from any source of available moneys, on any date on or after July 1, 20\_\*, as a whole, or in part by such maturities or portions of maturities as shall be determined by the Authority (or by lot within a maturity in the absence of such a determination), at a redemption price equal to the principal amount of each 2025A Bond called for redemption, plus interest accrued to the date fixed for redemption, without premium.

<sup>\*</sup> Preliminary, subject to change.

Mandatory Sinking Account Redemption of 2025A Bonds. The 2025A Bonds maturing on July 1, 20\_ are subject to redemption prior to their stated maturity in part, by lot, on July 1 of each year from Mandatory Sinking Account Payments, commencing July 1, 20\_, at a redemption price equal to their principal amount, plus accrued interest thereon to the date fixed for redemption, without premium, in the years and in the amounts as set forth below:

20 Term Bond				
Date				
(July 1)	Amount			
† Maturity				

The 2025A Bonds maturing on July 1, 20\_\_ are subject to redemption prior to their stated maturity in part, by lot, on July 1 of each year from Mandatory Sinking Account Payments, commencing July 1, 20\_\_, at a redemption price equal to their principal amount, plus accrued interest thereon to the date fixed for redemption, without premium, in the years and in the amounts as set forth below:

20 Term Bond				
Date				
(July 1)	Amount			
† Maturity				

**Selection of 2025A Bonds for Redemption.** In the event that less than all of the 2025A Bonds of any maturity are to be redeemed, the 2025A Bonds (or portions thereof) to be redeemed shall be selected by the Authority or, in the absence of such a selection by the Authority, by the applicable Registrar by lot within such maturity in such manner as the Registrar may determine.

Notice of Redemption. Notice of redemption (except as otherwise provided in the 2005 Indenture) is required to be given, not less than 30 nor more than 60 days before the date fixed for redemption, by first class mail to each of the registered owners of 2025A Bonds designated for redemption at their addresses appearing on the Bond registration books of the Registrar on the date the 2025A Bonds to be redeemed are selected. Each notice of redemption is required to state the redemption date, the place or places of redemption, the Series and maturities to be redeemed, and, if less than all of any such maturity, the numbers of the 2025A Bonds of such maturity to be redeemed and, in the case of 2025A Bonds to be redeemed in part only, the respective portions of the principal amount thereof to be redeemed, and is required also to state that on said date there will become due and payable on each of said 2025A Bonds the redemption price thereof or of said specified portion of the principal thereof in the case of a 2025A Bond to be redeemed in part only, together with interest accrued thereon to the redemption date, and that from and after such redemption date interest thereon shall cease to accrue, and is also to require that such 2025A Bonds be then surrendered, with a written instrument of transfer duly executed by the registered owner thereof or by such registered owner's attorney duly authorized in writing. No defect in or failure to give such mailed notice of redemption shall affect the validity of proceedings for the redemption of such 2025A Bonds. Each notice of redemption shall also state the CUSIP number, date of issue and interest rate on each 2025A Bond, or portion thereof, to be redeemed, and shall include the redemption agent name and address; provided, however, that failure to include any of such information in any redemption notice, or any inaccuracy in any such information, shall not affect the sufficiency of the proceedings for redemption of any 2025A Bonds.

The Authority may, at its option, prior to the date fixed for redemption in any notice of redemption, rescind and cancel such notice of redemption.

#### Trustee, Co-Trustee, Registrar and Paying Agent

The Bank of Guam has been appointed to act as the Trustee for the Bonds, including the 2025A Bonds, and U.S. Bank Trust Company, National Association, as successor to U.S. Bank National Association, has been appointed to act as Co-Trustee, registrar (the "Registrar") and paying agent (the "Paying Agent") for the 2025A Bonds.

## **Book-Entry System**

The 2025A Bonds will be delivered in fully registered form only, and when delivered will be registered in the name of Cede & Co., as nominee of DTC. DTC acts as securities depository for the 2025A Bonds. Ownership interests in the 2025A Bonds may be purchased in book-entry only form, in the denominations set forth above. The 2005 Indenture provides that, so long as DTC acts as securities depository for the 2025A Bonds, the Authority, the Trustee, the Co-Trustee, the Registrar and the Paying Agent may treat DTC as the absolute owner of such 2025A Bonds for all purposes and that none of the Authority, the Trustee, the Co-Trustee, the Registrar and the Paying Agent shall have any liability with respect to (i) the accuracy of the records of DTC or any Participant with respect to any beneficial ownership interest in the 2025A Bonds, (ii) the delivery to any Participant, any Beneficial Owner or any other person, other than DTC, of any notice with respect to the 2025A Bonds, (iii) the payment to any Participant, any Beneficial Owner or any other person, other than DTC, of any amount with respect to principal or redemption price of or interest on the 2025A Bonds, (iv) the selection by DTC or any Participant of any person to receive payment in the event of a partial redemption of the 2025A Bonds or (v) any consent given or other action taken by DTC as Holder of the 2025A Bonds. See APPENDIX G – "DTC AND ITS BOOK-ENTRY ONLY SYSTEM."

(Remainder of Page Intentionally Left Blank)

## DEBT SERVICE SCHEDULE

The following table sets forth the debt service schedule for the Outstanding Bonds and the 2025A Bonds.

Table 1
Debt Service Schedule

Fiscal Year Ending September 30,	Outstanding Bonds	2025A Bonds Principal	2025A Bonds Interest	Total Debt Service
2025	\$37,854,343			
2026	37,852,093			
2027	37,848,843			
2028	39,063,343			
2029	39,785,718			
2030	39,602,493			
2031	39,766,343			
2032	39,721,593			
2033	39,792,330			
2034	39,771,480			
2035	39,591,880			
2036	39,953,275			
2037	40,120,835			
2038	40,426,440			
2039	40,420,785			
2040	40,421,370			
2041	41,025,575			
2042	41,022,555			
2043	41,025,005			
2044	40,820,750			
2045	40,817,000			
2046	40,007,375			
2047	37,580,000			
2048	37,576,000			
2049	37,575,000			
2050	37,576,500			
2051				
2052				
2053				
2054				
2055				
Total <sup>(1)</sup>	\$1,027,018,920			

<sup>(1)</sup> Totals reflect rounding.

## SECURITY AND SOURCES OF PAYMENT FOR THE BONDS

#### **Pledge of Revenues**

The Bonds are limited obligations of the Authority and are payable solely from, and secured solely by a lien on and pledge of, the Revenues. Pursuant to the 2005 Indenture, the Authority has pledged all of the Revenues, subject only to the provisions of the 2005 Indenture permitting the application thereof for or to the purposes and on the terms and conditions set forth in the 2005 Indenture, to secure the payment of the principal of, premium, if any, and interest on the Bonds in accordance with their terms and the provisions of the 2005 Indenture and the payment of Credit Agreement Payments and Parity Payment Agreement Payments in accordance with their terms. The 2005 Indenture provides that such pledge constitutes a lien on and security interest in the Revenues and will attach, be perfected and be valid and binding from and after delivery of the first Series of Bonds issued under the 2005 Indenture, without any physical delivery of such Revenues or further act.

As defined in the 2005 Indenture, "Revenues" include all gross income and other amounts received or receivable by the Authority as revenues of any kind from the ownership or operation of any part of the System, including all rates, fees and charges (including ground water, surface water and treated water charges and all wastewater service charges) received by the Authority for providing water and wastewater services (but excluding development charges and assessments and hook-up fees and other special charges such as penalties and fines), all Payment Agreement Receipts, and all proceeds of insurance or grants covering business interruption loss (and related losses and expenses) relating to the System, and all other income and revenue howsoever derived by the Authority from the ownership or operation of, or arising from, the System, together with all interest, profits or other income derived from the investment of amounts in the Revenue Fund, but not including: (1) amounts received as insurance proceeds (except as described above) or from the sale, transfer or other disposition of, or upon the taking by or under the threat of eminent domain of, all or any part of the System (which moneys shall be received and disposed of pursuant to the provisions of the 2005 Indenture); (2) proceeds from any securities issued by the Authority or proceeds from loans obtained by the Authority; (3) the proceeds of any court or arbitration award or settlement in lieu thereof received by the Authority; (4) amounts received by the Authority as gifts or as grants (except as described above), whether restricted or unrestricted; and (5) other amounts (except as described above), the use of which is restricted by the donor or grantor.

The Authority has covenanted in the 2005 Indenture that, so long as any Bonds are Outstanding, the Authority will not issue any bonds or obligations payable from Revenues or secured by a pledge, lien or charge upon Revenues prior to or on a parity with the Bonds, any Parity Agreement Payments and any Credit Agreement Payments (other than Additional Bonds, Parity Agreement Payments and Credit Agreement Payments).

The ability of the Authority to pay principal of and interest on the Bonds will depend upon the receipt by the Authority of sufficient Revenues. If Revenues and amounts available in the funds and accounts under the 2005 Indenture are insufficient to pay the principal of and interest on the Bonds, no other source of repayment exists. The Authority has no taxing power. See "CERTAIN INVESTMENT CONSIDERATIONS – Limitations on Remedies."

#### **Allocation of Revenues**

The 2005 Indenture requires the Authority to deposit all Revenues upon receipt in the Revenue Fund held by the Depositary. The 2005 Indenture provides that on or before the fifth day of each calendar month, the Depositary is required to transfer from the Revenue Fund (to the Trustee as necessary) for deposit into one or more of the following respective separate funds, the following amounts in the following order of priority, the requirements of each such fund or account (including the making up of any deficiencies in any such fund or account resulting from lack of Revenues sufficient to make any earlier required deposit) at the time of deposit to be satisfied, and the results of such satisfaction being taken into account, before any transfer is made to any fund subordinate in priority:

(A) into the Operation and Maintenance Fund, an amount equal to the amount of Operation and Maintenance Expenses budgeted by the Authority, pursuant to the budget, as revised, filed in accordance with the 2005 Indenture, to be paid from Revenues during the next succeeding calendar month (including any amount to be held as a reserve for transfer to the Rebate Fund) plus the amount of any Other

Credit Agreement Payments then due and payable or to become due and payable during such month not otherwise included in such amount;

- (B) into the Debt Service Fund held by the Co-Trustee, an amount equal to the amount necessary to increase the amount in the Debt Service Fund to the aggregate amount for all Outstanding Bonds of all unpaid interest, principal and Mandatory Sinking Account Payments and for all Outstanding Parity Payment Agreements of all Parity Payment Agreement Payments with respect thereto and for all Outstanding Credit Agreements of all Credit Agreement Reimbursement Payments due and payable to the extent not otherwise included in such amount which shall be required to have been transferred to the Debt Service Fund on the basis of the following transfer requirement rules (after taking into account amounts transferred and to be transferred from any Construction Account to pay Capitalized Interest):
  - (1) an amount equal to the amount of interest payable on each Bond on a current uncompounded basis on any Interest Payment Date shall be transferred in equal monthly amounts over the Interest Accrual Period for such Bond ending on such Interest Payment Date (or in the case of Variable Rate Bonds 110% of the amount of interest accrued during the next preceding calendar month less any excess deposited for the next preceding calendar month); provided that to the extent that a Qualified Counterparty is obligated to make payments to the Authority on or prior to such Interest Payment Date pursuant to an Outstanding Payment Agreement Related to any Bonds, an amount equal to the amount of any such payment obligation shall be transferred from the Revenue Fund to the Debt Service Fund on the date such payment is due and the amount of each monthly transfer with respect to such Bonds as described in this subparagraph (1) during the Interest Accrual Period (or portion thereof) over which such payment obligation accrues shall be reduced by an amount equal to the amount of such Qualified Counterparty's payment obligation accruing during the next preceding calendar month;
  - (2) the amount of interest payable on each Bond on a deferred compounded basis on any Interest Payment Date shall be transferred in substantially equal monthly amounts over the period during which such interest accrues on such basis;
  - (3) the amount of the principal of each Bond shall be transferred in equal monthly amounts over the Principal Payment Period for such Bond ending on the maturity date for such Bond:
  - (4) the amount of each Mandatory Sinking Account Payment for Bonds shall be transferred in equal monthly amounts over the Principal Payment Period for such Bonds ending on the date such Mandatory Sinking Account Payment is due;
  - (5) the amount of any Parity Payment Agreement Payment payable on any Payment Agreement Payment Date shall be transferred (a) in the case of such payments calculated based on a fixed rate, in equal monthly installments over the Payment Agreement Payment Accrual Period for such Payment Agreement Payment ending on such Payment Agreement Payment Date and (b) in the case of such payments calculated based on a variable rate, in monthly installments equal to 110% of the amount of such obligation accrued during the next preceding calendar month less any excess deposited for the next preceding calendar month; and
  - (6) to the extent not otherwise included in amounts described in subparagraphs (1) through (5) above, the amount of any Credit Agreement Reimbursement Payment due and payable is to be transferred;
- (C) into the Bond Reserve Fund held by the Co-Trustee, the amount, if any, needed to increase the amount in the Bond Reserve Fund to the Bond Reserve Fund Requirement (equal to the Maximum Annual Debt Service for the then current or any future Fiscal Year on all Outstanding Bonds) as of the date of such transfer;

- (D) into the Subordinate Securities Fund (and any accounts therein), the amount, if any, needed to increase the amount in such Fund and each such account to its requirement (including any requirements for reasonable debt service reserves and requirements related to Payment Agreements that constitute Subordinate Securities (including Termination Payments)) established by each resolution, indenture or other instrument pursuant to which Subordinate Securities are issued and outstanding;
- (E) into the Operation, Maintenance, Renewal and Replacement Reserve Fund, the amount, if any, needed to increase the amount in the Operation, Maintenance, Renewal and Replacement Reserve Fund to an amount equal to one-fourth (1/4) of the sum of the amounts of Operation and Maintenance Expenses and Renewal and Replacement Costs budgeted by the Authority, pursuant to the budget, as revised, filed in accordance with the 2005 Indenture, for the then current Fiscal Year;
- (F) into the Rate Stabilization Fund, the amount specified for such month in a Certificate of the Authority which also certifies that such amount is consistent with the annual budget established by the Authority pursuant to the 2005 Indenture; and
- (G) into the Capital Improvement Fund, the balance remaining in the Revenue Fund after the deposits described above.

The 2005 Indenture provides that, in the event that the amount in any Fund or Account is insufficient for the purposes for which such Fund or Account was established, the Trustee, the Co-Trustee or the Depositary upon the direction of the Trustee, is required to transfer to such Fund or Account the amount of such deficiency by withdrawing said amount from subordinate Funds and Accounts in reverse order of the priority described above and prior to any other claims upon such Funds and Accounts, subject only to the limitation that amounts in the Bond Reserve Fund shall only be used as provided in the 2005 Indenture.

See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE – DEFINITIONS" for definitions of the capitalized terms used above and descriptions of certain of the Funds and Accounts referenced above.

**Proposed 2005 Indenture Amendments**. The Twelfth Supplemental Indenture includes amendments to the 2005 Indenture relating to the allocation of Revenues with respect to the Bond Reserve Fund. See "PROPOSED 2005 INDENTURE AMENDMENTS" and APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE."

#### **Rate Covenant**

The Authority has covenanted in the 2005 Indenture to at all times fix, prescribe and collect rates, fees and charges in connection with the services furnished by the System which will be sufficient to yield the sum of Net Revenues during each Fiscal Year equal to at least 1.25 times the Aggregate Annual Debt Service for such Fiscal Year and to yield Revenues during each Fiscal Year equal to at least the aggregate amount of all transfers required to be made pursuant to the provisions of the 2005 Indenture described above in (A) through (E) under "— Allocation of Revenues" (collectively, the "Rate Covenant").

"Net Revenues" is defined in the 2005 Indenture to mean, for any particular period, (a) the sum of (i) all of the Revenues (other than Payment Agreement Receipts) received during such period plus (ii) the aggregate amount of all transfers from the Rate Stabilization Fund to the Revenue Fund during such period, less (b) the sum of (x) all Operation and Maintenance Expenses incurred during such period plus (y) the amount of all transfers from the Revenue Fund to the Rate Stabilization Fund during such period.

"Operation and Maintenance Expenses" is defined in the 2005 Indenture to mean such reasonable and necessary current expenses of the Authority, paid or accrued, for operation, maintenance and repair of the System as may be determined by the Board, and the term may include at the Board's option, except as limited by contract or otherwise limited by law, without limiting the generality of the foregoing: (a) legal and overhead expenses of the Authority directly related and reasonably allocable to the administration of the System; (b) fidelity bond and

insurance premiums appertaining to the System or a reasonably allocable share of a premium of any blanket bond or policy pertaining to the System; (c) contractual services, professional services, salaries, administrative expenses, and costs of labor appertaining to System, including fees and expenses of the Trustee; (d) the costs incurred in the collection of all or any part of the Revenues; and (e) any costs of utility services furnished to the System by the Authority or otherwise. However, the term "Operation and Maintenance Expenses" as used in the 2005 Indenture does not include: (i) any allowance for depreciation; (ii) any costs of System capital renewals, replacements, major repairs, reconstruction, improvements, extensions or betterments; (iii) any accumulation of reserves for System capital renewals, replacements, major repairs or reconstruction; (iv) any reserves for operation, maintenance or repair of the System; (v) any liabilities incurred in the acquisition or improvement of any properties comprising the System or any combination thereof; (vi) any other legal liability not based on contract; and (vii) payments made by the Authority to Guam Power Authority for power delivered prior to the Fiscal Year commencing October 1, 2003.

The 2005 Indenture provides that if, at the end of a Fiscal Year, (i) the sum of Net Revenues for such Fiscal Year were less than 1.25 times Aggregate Annual Debt Service for such Fiscal Year, or (ii) Revenues were less than the aggregate amount of all required transfers described above in (A) through (E) under "– Allocation of Revenues" for such Fiscal Year, the Authority is required to promptly employ a Consulting Engineer to make recommendations as to a revision of rates, fees and charges or the methods of operation of the System, and promptly upon its receipt of such recommendations, to revise such rates, fees and charges or methods of operation and to take such other actions as will be in conformity with such recommendations, subject to applicable requirements or restrictions imposed by law, including approval of any rate increases by the PUC, and subject to a good faith determination of the CCU that such recommendations, in whole or in part, are in the best interests of the Authority, the Owners and each Credit Provider, if any. The 2005 Indenture provides that if the Authority complies in all material respects with the reasonable recommendations of the Consulting Engineer with respect to said rates, fees, charges and methods of operation or collection, or makes a good faith determination that such recommendations are not in the best interests of the Authority, the Authority will be deemed to have complied with the Rate Covenant for such Fiscal Year; provided, that Net Revenues are in no event less than Aggregate Annual Debt Service for such Fiscal Year.

See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE – DEFINITIONS" for definitions of the capitalized terms used above and "– CERTAIN COVENANTS – Rate Covenant."

For discussions of additional requirements relating to rate-setting, see "REGULATORY ENVIRONMENT – Regulation of Ratemaking."

**Proposed 2005 Indenture Amendments**. The Twelfth Supplemental Indenture includes amendments to the 2005 Indenture relating to the calculation of Annual Debt Service to include the assumed principal amount of Balloon Bonds. See "PROPOSED 2005 INDENTURE AMENDMENTS" and APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE."

#### **Bond Reserve Fund**

The 2005 Indenture establishes the Bond Reserve Fund to be used and withdrawn by the Co-Trustee solely for the purpose of paying debt service on the Bonds (including Payment Agreement Payments to the extent provided in any Supplemental Indenture) in the event of a deficiency in the Debt Service Fund, in the manner and to the extent set forth in the 2005 Indenture. So long as the Authority is not in default under the 2005 Indenture, any amount in the Bond Reserve Fund in excess of its Bond Reserve Fund Requirement is to be transferred to the Revenue Fund.

"Bond Reserve Fund Requirement" is defined in the 2005 Indenture to mean, as of any particular date of calculation, an amount equal to the Maximum Annual Debt Service for the then current or any future Fiscal Year on all Outstanding Bonds; provided, however, that if upon issuance of a Series of Bonds, such amount would require moneys to be credited to the Bond Reserve Fund from such Bond proceeds in an amount in excess of the maximum amount permitted from tax-exempt bond proceeds under the Code, the Bond Reserve Fund Requirement shall mean an amount equal to the sum of the Bond Reserve Fund Requirement immediately preceding issuance of such Bonds plus the maximum amount permitted under the Code to be deposited therein from the proceeds of such Bonds, as specified by Certificate of the Authority.

Upon the issuance of the 2025A Bonds, the Bond Reserve Fund Requirement is \$\_\_\_\_\_\_. See "ESTIMATED SOURCES AND USES OF FUNDS."

If and to the extent provided by a Supplemental Indenture, the Bond Reserve Fund Requirement may be wholly or partially satisfied by a Credit Facility. Notwithstanding anything to the contrary contained in the 2005 Indenture, such Supplemental Indenture may provide that a draw on such Credit Facility is to be made only after all cash in the Bond Reserve Fund been withdrawn and that if a drawing or other claim on such Credit Facility is honored, amounts available for deposit pursuant to the provisions of the 2005 Indenture relating to allocation of Revenues to the Bond Reserve Fund will be applied by the Co-Trustee to reimburse, as soon as practicable, the amount of each payment honoring such drawing or other claim.

See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE – REVENUES AND FUNDS – Application of Bond Reserve Fund."

**Proposed 2005 Indenture Amendments**. The Twelfth Supplemental Indenture includes amendments to the 2005 Indenture deleting the requirement of Bond Reserve Fund for additional Bonds and changing the Bond Reserve Fund Requirement to 50% of the Maximum Annual Debt Service for the then current or any future Fiscal Year on all Outstanding Bonds. See "PROPOSED 2005 INDENTURE AMENDMENTS" and APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE."

#### **Outstanding Bonds**

Following the July 1, 2025, maturity date, the Authority will have outstanding Bonds in the aggregate principal amount of \$573,790,000, comprised of the Authority's Water and Wastewater System Revenue Bonds, Series 2016, outstanding in the principal amount of \$80,965,000 (the "2016 Bonds"); the Authority's Water and Wastewater System Revenue Refunding Bonds, Series 2017, outstanding in the principal amount of \$55,175,000 (the "2017 Bonds"); the Authority's Water and Wastewater System Revenue Bonds, Series 2020A, outstanding in the principal amount of \$134,000,000 (the "2020A Bonds"); the Authority's Water and Wastewater System Revenue Refunding Bonds, Series 2020B (Federally Taxable), outstanding in the principal amount of \$125,835,000 (the "2020B Bonds"); and the Authority's Water and Wastewater System Revenue Refunding Bonds, Series 2024A, outstanding in the principal amount of \$130,615,000 (the "2024A Bonds"), and Series 2024B, outstanding in the principal amount of \$47,200,000 (the "2024B Bonds" and, together with the 2024A Bonds, the "2024AB Bonds").

## **Additional Bonds**

The 2005 Indenture permits the Authority to issue Additional Bonds secured on a parity with the Outstanding Bonds, including the 2025A Bonds, upon the satisfaction of the requirements set forth in the 2005 Indenture, including, among other things, the filing of the documents described below, as applicable, with the Trustee.

If and to the extent that a Series of Additional Bonds is being issued to provide moneys for deposit in a Construction Account, the following certificates and reports are to be filed:

- (A) a certificate of a Consulting Engineer setting forth (I) the projected Date of Completion for the Project or Projects for which such Series of Additional Bonds is being issued and for any other uncompleted Projects, and (II) an estimate of the cost of construction of such Projects;
- (B) a written report of a Consulting Engineer setting forth for each Fiscal Year from the then current Fiscal Year through the later of (I) the first Fiscal Year commencing at least five years after the date of original issuance of such additional Series, or (II) the first Fiscal Year commencing at least three years after the Date of Completion projected by the Consulting Engineer in the certificate described in (A) above, estimates of Revenues, Operation and Maintenance Expenses and Net Revenues; and

- (C) a certificate of the Authority (I) setting forth (a) the estimates of Revenues, Operation and Maintenance Expenses, and Net Revenues, as set forth in the written report of a Consulting Engineer described in subparagraph (B) above, for each of the Fiscal Years covered by such report, and (b) the Aggregate Annual Debt Service and Capitalized Interest for each of such Fiscal Years, including Annual Debt Service and Capitalized Interest on all future Series of Bonds, if any, which such Certificate of the Authority shall estimate (based on the estimate of the Consulting Engineer of the cost of construction of such Projects) are required to complete payment of the cost of construction of such Projects, and (II) demonstrating that for each of such Fiscal Years (a) Revenues are projected to be at least equal to the aggregate amount of all transfers required to be made pursuant to the provisions of the 2005 Indenture described above in (A) through (E) under "– Allocation of Revenues," and, to the extent applicable, otherwise required to provide for the payment of all obligations of the Authority to be paid from Revenues, and (b) Net Revenues are projected to be at least equal to 1.25 times Aggregate Annual Debt Service.
- (D) In lieu of the certificates and reports required by the provisions of the 2005 Indenture summarized in subparagraphs (A), (B) and (C) above, the Authority may deliver to the Trustee a Certificate of the Authority to the effect that for the last complete Fiscal Year or any period of 12 consecutive calendar months out of the 18 calendar months next preceding the original issuance of such Additional Bonds, Net Revenues for such Fiscal Year or 12-month period equaled at least 1.25 times the Maximum Annual Debt Service on all Bonds then Outstanding plus the Series of Additional Bonds being issued.

In addition, a Series of Bonds may be issued for the sole purpose of depositing in a Construction Account the amounts necessary to complete any one or more Projects without filing with the Trustee the certificates and reports required by the provisions of the 2005 Indenture summarized in subparagraphs (B) and (C), if such certificates and reports demonstrating compliance with such provisions of the 2005 Indenture were filed in connection with the issuance of the prior Series of Bonds for each of such Projects and if the principal amount of such Additional Bonds to be issued for completion purposes does not exceed 10% of the principal amount of Bonds previously issued for and allocable to such Projects.

The 2005 Indenture also provides that if and to the extent that a Series of Additional Bonds is being issued for the purpose of refunding Bonds, the Authority is required to file with the Trustee either (i) a certificate of an Independent Certified Public Accountant that Aggregate Annual Debt Service for each Fiscal Year thereafter will be less than or equal to Aggregate Annual Debt Service for each such Fiscal Year in the absence of such refunding, or (ii) the certificates and reports described in subparagraphs (A) (if any one or more of the Projects for which the Bonds being refunded is not then completed), (B) and (C) above; provided that in lieu of the certificates and reports described in subparagraphs (A), (B) and (C), the Authority may deliver to the Trustee the certificate described in subparagraph (D) above.

See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE – ISSUANCE OF BONDS; ISSUANCE OF A SERIES OF BONDS; PARITY PAYMENT AGREEMENTS – Issuance of Additional Series of Bonds" and "– Proceedings for the Issuance of a Series of Bonds; Parity Payment Agreements."

**Proposed 2005 Indenture Amendments**. The Twelfth Supplemental Indenture includes amendments to the 2005 Indenture relating to certain certificates and reports to be filed in connection with the issuance of a Series of Additional Bonds to provide moneys for deposit in a Construction Account. See "PROPOSED 2005 INDENTURE AMENDMENTS" and APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE."

## **Parity Payment Agreements**

The Authority is permitted under the 2005 Indenture to enter into one or more Parity Payment Agreements, the Authority payments of which are secured by a lien upon and pledge of Revenues equal to and on a parity with the lien and pledge securing the Bonds, provided the Authority complies with certain provisions of the 2005 Indenture.

See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE – ISSUANCE OF BONDS; ISSUANCE OF A SERIES OF BONDS; PARITY PAYMENT AGREEMENTS – Additional Parity Payment Agreements" and "– Proceedings for the Issuance of a Series of Bonds; Parity Payment Agreements."

The Authority is currently working to secure a \$75 million loan from a commercial bank in the form of a revolving credit agreement to finance eligible capital improvement projects. The Authority anticipates that such revolving credit agreement would constitute a "Parity Payment Agreement" under the 2005 Indenture. The Authority anticipates that such credit agreement would permit the Authority to make draws directly from the bank, with the Authority's payment obligation evidenced by a revolving note. See "FUTURE SYSTEM CAPITAL REQUIREMENTS – Capital Improvement Program – Short-Term Construction Financing."

#### **Subordinate Obligations**

The 2005 Indenture does not prevent the Authority from issuing or incurring any indebtedness secured by a lien or charge on Revenues that is junior and subordinate to the lien and charge of the Bonds. The Authority does not have any subordinate obligations outstanding and does not have any current plans to issue any subordinate debt.

#### **Events of Default and Remedies; No Acceleration**

The 2005 Indenture specifies Events of Default and related remedies. The remedies granted to the Trustee and the Bondowners under the 2005 Indenture do not include any right to accelerate the payment of the Bondo, including the 2025A Bonds. The Trustee is authorized to take certain actions upon the occurrence of an Event of Default, including proceedings to enforce the rights of the Bondowners. See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE – EVENTS OF DEFAULT AND REMEDIES OF BONDOWNERS" for descriptions of the Events of Default and remedies under the 2005 Indenture.

#### **Depositaries for Funds and Accounts**

The Co-Trustee has been appointed to act as Depositary for the Debt Service Fund and the Bond Reserve Fund. The Trustee has been appointed as Depositary for the Revenue Fund, the Operation and Maintenance Fund, the Subordinate Securities Fund, the Operation, Maintenance, Renewal and Replacement Reserve Fund, the Capital Improvement Fund, the Rate Stabilization Fund and the Rebate Fund. The Authority may enter into a Supplemental Indenture from time to time to provide for a different or additional Depositary for any fund or account established under the 2005 Indenture.

#### PROPOSED 2005 INDENTURE AMENDMENTS

The Twelfth Supplemental Indenture will amend and restate the 2005 Indenture in the event that the owners of at least 60% in Accreted Value of the Bonds then Outstanding under the 2005 Indenture consent to the terms of the Twelfth Supplemental Indenture and certain other requirements of the 2005 Indenture are satisfied. Should such requirements be satisfied, the Transition Date (as defined herein) will occur. Upon purchasing the 2025A Bonds, pursuant to the Twelfth Supplemental Indenture, the initial purchasers of the 2025A Bonds will be deemed to have consented to the amendments to the 2005 Indenture contained in the Twelfth Supplemental Indenture (the "2005 Indenture Amendments"). Upon the issuance of the 2025A Bonds, the owners of approximately \_\_% in Accreted Value of the Bonds then Outstanding under the 2005 Indenture will have consented to the 2005 Indenture Amendments. After the Transition Date, the 2005 Indenture Amendments will be binding upon the initial purchasers and any subsequent owners of the 2025A Bonds.

If the Transition date occurs, many of the provisions governing the 2025A Bonds will change, including but not limited to: (i) the calculation of Annual Debt Service to include the assumed principal amount of Balloon Bonds; (ii) the requirement of Bond Reserve Fund for additional Bonds; (iii) the Bond Reserve Fund Requirement to 50% of the Maximum Annual Debt Service for the then current or any future Fiscal Year on all Outstanding Bonds; (iv) the definition of "Bonds" to include other evidences of indebtedness for borrowed money including, but not

limited to bonds, notes, bond anticipation notes, commercial paper, lease or installment purchase agreements or certificates of participation; (v) certain certificates and reports to be filed in connection with the issuance of a Series of Additional Bonds to provide moneys for deposit in a Construction Account; (vi) the allocation of Revenues with respect to the Bond Reserve Fund; (vii) the consent requirement for the modification or amendment of the 2005 Indenture; and (viii) adding purposes for which the Twelfth Supplemental Indenture may be modified or amended without the consent of any Bondowners. To understand the changes that will take effect should the Transition Date occur, investors should carefully read the information set forth in APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE."

Under the Twelfth Supplemental Indenture, "**Transition Date**" means the date designated in a Certificate of the Authority delivered to the Trustee and the Co-Trustee to the effect that all of the terms of the Twelfth Supplemental Indenture, on and after such date, constitute the amendment and restatement of the 2005 Indenture in accordance with the Twelfth Supplemental Indenture and the 2005 Indenture, which Certificate of the Authority shall be accompanied by a written opinion of Bond Counsel to the effect that the Twelfth Supplemental Indenture constitutes a valid and binding amendment of the 2005 Indenture in accordance with the Twelfth Supplemental Indenture and the 2005 Indenture.

(Remainder of Page Intentionally Left Blank)

#### THE AUTHORITY

#### General

In 1950, the Guam Legislature enacted Public Law 1-12 assigning responsibility for the public water supply to the Guam Department of Public Works. Shortly thereafter, in 1952, the Guam Legislature enacted Public Law 1-88 creating the Public Utility Agency of Guam (the "PUAG"), which consisted of telephone, power, water and wastewater utilities. The PUAG remained responsible for Guam's water and wastewater systems for the ensuing 44 years. In 1996, the Authority was established as a new semiautonomous, self-supporting agency responsible for Guam's water and wastewater utilities, and began operations on February 1, 1997. In 2002, by virtue of the passage of Public Law 26-76, the Authority converted to its current status as a public corporation, organized and existing as a Guam public corporation under Chapter 14 of Title 12 of the Guam Code Annotated, and authorized to operate and maintain the System for Guam.

The Authority's System provides water service to the entire civilian population of Guam and provides sewer service to a large percentage of Guam's civilian population, plus Andersen Air Force Base and several smaller United States Navy (the "Navy") facilities. There is, however, a significant civilian population that does not have sewer service, particularly in the northern area of the island where many homes rely on individual septic tanks or other on-site disposal systems. In addition, there are currently two major military installations, Andersen Air Force Base and Naval Base Guam, which occupy large areas on the island. Andersen Air Force Base has its own water and wastewater collection system; however, it does not have a separate wastewater treatment plant and, therefore, the wastewater collected from Andersen Air Force Base is discharged into the Authority's System and treated at the Northern District wastewater treatment plant (the "Northern District WWTP"). Naval Base Guam has its own water and wastewater collection system, as well as its own separate wastewater treatment plant. A third military installation, Marine Corps Base Camp Blaz, is currently being constructed. The Marine Corps Base will have its own wastewater collection system and water system, which will serve facilities on the base as they are completed. Marines are expected to begin moving into Marine Corps Base Camp Blaz as early as 2026, before it is expected to be completed in 2028. The Authority has constructed both a water and wastewater service connection and expects that wastewater collected from Marine Corps Base Camp Blaz, once it is completed, will be discharged into the Authority's System and treated at the Northern District WWTP. The water service connection is being actively used during the construction of the base and may serve to augment the water source once the military base is operational. Intermittent wastewater discharges during construction and individual facility commissioning have occurred, but continuous regular discharge is not expected until the base is in full operation. The Authority purchases some of its water supply from the Navy. See "THE SYSTEM." During Fiscal Year 2024, the Authority served an average of 43,615 water customers and an average of 31,080 wastewater customers. See Table 2 - "Selected Statistics."

The Authority works to provide efficient and reliable service to its customers, operating as a self-sufficient utility while meeting all US EPA and Guam Environmental Protection Agency ("Guam EPA") requirements.

#### **Consolidated Commission on Utilities**

The Authority is governed by the CCU, a five-member board elected in a general election to four-year terms that is also charged with oversight of GPA. The CCU makes decisions regarding policies, management, budgeting and financing of the Authority's operations. Certain actions, however, such as issuing bonds for financing utility capital projects, also require the approval of the Guam Legislature and the PUC. In addition, ratemaking by the CCU is subject to the approval of the PUC, as the regulatory ratemaking body. The Authority may not enter into any contractual agreements or obligations which could increase rates and charges without the prior written approval of the PUC. See "REGULATORY ENVIRONMENT – Regulation of Ratemaking."

The current members of the CCU are:

<u>Francis E. Santos, Chairman.</u> Mr. Santos is serving his third term as an elected CCU Commissioner. He has over 25 years of experience in the private and public sectors, specializing in healthcare and business management. Mr. Santos currently serves as the Corporate Business Development Director for Tan Holdings and TakeCare Insurance. His extensive healthcare experience includes positions as Senior Vice President for Strategic Planning and Business Development for Guam Regional Medical City, Guam's only private accredited hospital,

Plan Administrator for StayWell Health Plan, President/Chief Executive Officer of Island Home Insurance Company, and member/director of Global Health Systems, which specializes in wound care and hyperbaric medicine. His public sector service has included an acting appointment as Superintendent of Guam's Department of Education and chairman of the Guam Education Policy Board. Mr. Santos also served as chairman of the board of iLearn Academy Charter School, Guam's second public charter school. Mr. Santos served three terms as a Senator in the Guam Legislature. Mr. Santos' educational background includes an M.B.A. in Health Care Administration from Loma Linda University and a Bachelor's Degree in Business Management from Seattle University. He is a graduate of Father Duenas Memorial School, Guam.

Pedro Roy Martinez, Vice Chairman. Mr. Martinez was sworn into the CCU in March 2021. Mr. Martinez has over 27 years of experience in the government of Guam including roles as the Deputy Executive Manager of the A. B. Won Pat International Airport Authority and the Director of Development and Alumni Affairs at the University of Guam. Prior to his government service, Mr. Martinez gained entrepreneurship experience through his family-owned business, Pedro's, which encompassed an ice plant, cold storage, building rentals, and a retail and wholesale business. Mr. Martinez has also served as Chairman and Treasurer of the Guam Telephone Authority Board of Directors. Beyond his professional endeavors, he currently holds the position of Chairman on the Board of Directors at Coast360 Federal Credit Union. He is also a member of the Father Duenas Memorial School Alumni Association and President of the Parish Council and member of the Finance Council and Knights of Columbus at St. Jude Thaddeus Catholic Church. Mr. Martinez served in the United States Air Force and is a retired Master Sergeant with the United States Army Reserve. Mr. Martinez has a Master of Public Administration and a B.B.A. in Management from the University of Guam.

Melvin F. Duenas, Secretary. Melvin F. Duenas served for 18 years with the Guam Power Authority and the Guam Army National Guard, holding roles from instrumentation technician to lineman, and earning multiple technical and military awards. He obtained dual Bachelor's degrees in Theology and in the History and Philosophy of World Religions, followed by a Master's degree in Pastoral Ministry and Family Crisis Counseling. He worked as a missionary across Asia, Africa, and the Middle East, and later returned to Guam to serve as a pastor, teacher, and community advocate. A certified educator, Mr. Duenas has taught science, agriculture, military leadership, and Chamoru language and culture in both high school and elementary levels.

Michael Limtiaco, Commissioner. Mr. Limtiaco was elected to the CCU in 2019. He is currently the Executive Vice President of Pacific Unlimited Inc., and has 25 years of experience in strategic planning, business development, contract administration and operations. Mr. Limtiaco was elected as a Senator and served in the 32nd Guam Legislature. He served as a director on the Guam Memorial Hospital Board and as a transition team member for incoming Executive branch leadership. Mr. Limtiaco holds a B.A. in Business Administration and Business Economics from the University of San Diego.

Simon A. Sanchez II, Commissioner. Mr. Sanchez has served on the CCU since its inception in January 2003, including as chairman from January 2003 until January 2015. He is a former Senator and former Vice Chairman, Public Utilities Commission 1988-1994. Currently, he also serves as Director on the Commonwealth Utility Corporation for the CNMI. Mr. Sanchez has served as Vice President/General Manager of Guam Dry Cleaners since 1988. He has served on numerous government and civic organization boards including the Guam Chamber of Commerce, the Guam Visitors Bureau, the Guam Hotel and Restaurant Association and the Guam Memorial Hospital. Mr. Sanchez graduated from Harvard University in 1980 with an M.A. in City and Regional Planning, from Stanford University in 1978 with a B.A. in history, and from Father Duenas Memorial School in 1974.

## **Key Management Personnel**

Following are brief résumés of key management personnel of the Authority. The General Manager, the Chief Financial Officer, and the General Counsel each report directly to the CCU.

Miguel C. Bordallo, P.E., General Manager. Mr. Bordallo joined the Authority as General Manager in January 2016. Mr. Bordallo has over 30 years of experience in environmental/mechanical engineering, and construction in California, Guam and Micronesia. Prior to joining the Authority, Mr. Bordallo was a consulting engineer providing design and design-build services for water and wastewater infrastructure projects and was also

vice president of a large construction company on Guam, where he oversaw the construction of John F. Kennedy High School. Mr. Bordallo was previously a partner at the local engineering firm Duenas, Bordallo and Associates, before moving on as Principal and founder of Bordallo Consulting Engineers. Since joining the Authority, Mr. Bordallo has continued the Authority's intensive capital improvement program, built capacity in the management team and reduced reliance on contracted program management, and is focused on improving the Authority's performance in regulatory compliance, comprehensive water loss reduction, asset management, and resource protection. Mr. Bordallo holds a B.S. in Mechanical Engineering with honors from Marquette University in Milwaukee, Wisconsin, and is a licensed professional engineer in Guam.

Taling M. Taitano, CPA, CGFM, CGMA, Chief Financial Officer. Ms. Taitano became Chief Financial Officer of the Authority in September 2019. During the ten years prior to joining the Authority, Ms. Taitano served as Deputy Superintendent of Finance and Administrative Services for the Guam Department of Education and was appointed by the Guam Education Board as the Interim Superintendent of Education from July 2011 through June 2012. She was also a Partner at Deloitte & Touche LLP and the Chief Financial Officer for a major local health insurance company and a banking institution. Ms. Taitano has held leadership positions in various boards and professional organizations including the Guam Board of Accountancy, Guam Society of Certified Public Accountants and the Association of Government Accountants. She holds a Bachelor of Business Administration degree from the University of Hawaii, Manoa, and is a Certified Public Accountant, Certified Government Financial Manager, and Chartered Global Management Accountant.

Theresa G. Rojas, Esq., General Counsel. Ms. Rojas became the General Counsel for the Authority in September 2021. Prior to joining the Authority, she was employed with both government and private sector firms. In private practice Ms. Rojas was a member of the legal team who successfully defended Guam's port agency against an invalid and unlawful multi-million-dollar arbitration award. Ms. Rojas has successfully argued and won both civil and criminal appeals in the Supreme Court of Guam and previously served as in-house counsel to Guam's largest finance company. Ms. Rojas received her B.A. in Political Science and Economics from Gonzaga University in 2003 and her J.D., *cum laude*, from Thomas M. Cooley Law School, Western Michigan University in 2012. Prior to law school Ms. Rojas was a government auditor holding a Certified Government Financial Manager designation; now inactive.

Thomas F. Cruz, P.E., Assistant General Manager, Operations. Mr. Cruz first joined the Authority in 2006 as a senior engineer supervisor and has subsequently held various other positions before becoming the Chief Engineer in August 2011. In January 2021, Mr. Cruz became the Assistant General Manager for Operations where his current objectives are to ensure all water and wastewater system operations are conducted efficiently, meeting regulatory compliance requirements and in line with the Authority's plan for improved levels of service for its ratepayers. Mr. Cruz is a licensed Civil Engineer on Guam and has over 20 years of engineering experience in projects ranging from roadway design and construction, water distribution and wastewater collection design as well as construction management. Mr. Cruz holds a Bachelor of Science (Civil Engineering) from Kansas State University and an M.B.A. from the University of Phoenix. Mr. Cruz served as Interim General Manager from August 2014 until March 2015.

Brett E. Railey, P.E., Assistant General Manager, Engineering. Mr. Railey joined the Authority in 2008 as a senior engineer supervisor. He is a licensed Mechanical Engineer on Guam. Prior to joining the Authority, he held engineering and management positions at DZSP21 and Raytheon Technical Services Guam. His background includes water treatment and distribution system design, construction and operation, and operation of wastewater treatment and collection systems, steam and demineralized water systems, and baseload power generation systems. Mr. Railey holds a Bachelor of Science (Mechanical Engineering) from the University of Florida. As Assistant General Manager, Mr. Railey's current task objectives are to deliver necessary capital improvement projects for the Authority.

<u>Paul J. Kemp, Assistant General Manager, Compliance and Safety</u>. Mr. Kemp has over 63 years of experience managing and teaching water quality chemistry for natural (ground and surface) waters, drinking water, water for industrial applications (e.g., manufacturing, food and dairy processing), ultra-high purity water, wastewater treatment, water recovery for reuse, and environmental and safety compliance. Mr. Kemp has been Assistant General Manager of Compliance and Safety at the Authority since 2003. Prior to joining the Authority, he held engineering and management positions in private laboratory, research, and manufacturing companies as well as

teaching and research positions in higher education. Mr. Kemp is currently a member of the Joint Editorial Board of "Standard Methods for the Examination of Water and Wastewater." He is a member of the Western Pacific Subsection of the Hawaii Section of the American Water Works Association ("AWWA"), served as Past Chair of several advisory committees at AWWA, and received the Lifetime Member and Fuller Award from AWWA. Mr. Kemp is also a member of the American Chemical Society, the Society of the Sigma Xi (Chemists Honorary Society), and the International Union of Pure and Applied Chemistry. He has published technical articles in various journals. Mr. Kemp was trained as an analytical chemist specializing in spectroscopic methods and water analysis. He received a B.S. in chemistry from Iowa State University and an M.S. in Analytical Chemistry from Oregon State University. He also undertook postgraduate studies and teaching at the University of Hawaii.

Christopher M. Budasi, Assistant General Manager, Administration and Support. Mr. Budasi joined Guam Waterworks Authority in October 2018. Prior to joining the Authority, he served more than 15 years in executive-level positions successfully leading teams in finance, human resources, purchasing and supply management, and information technology. Mr. Budasi was the Finance Administrator for the Judiciary of Guam for five years and before that, he served as the Guam Legislature's Director of the Office of Finance and Budget for four years. Mr. Budasi also has 17 years of experience in the health insurance industry; of those 17 years, he spent six years as a Senior Executive responsible for all underwriting and information technology functions. Mr. Budasi received a B.A. in Government and a B.A. in Economics and Management from Beloit College in Beloit, Wisconsin.

For more information regarding the Authority's organizational chart, including the Authority's various operating divisions, see APPENDIX A – "Consultant's Feasibility Study – Guam Waterworks Authority – Operating Divisions."

(Remainder of Page Intentionally Left Blank)

#### THE SYSTEM

The System is comprised of the Authority's water and wastewater systems, each of which is further described herein. The following table presents selected statistics regarding Authority operations for Fiscal Year 2024. See also "HISTORICAL AND PROJECTED OPERATING RESULTS." The Authority's Fiscal Year is currently October 1 – September 30.

## Table 2 Selected Statistics Fiscal Year 2024

Average Number of Water Customers	43,615
Average Number of Wastewater Customers	31,080
Annual Water Sales (million gallons)	5,119
Annual Wastewater Collection (million gallons)	3,806
Operating Revenues <sup>(1)</sup>	\$128,387,137
Gross Investment in Utility Plant	\$1,264,240,090
Net Utility Plant Investment	\$811,400,744
Total Equity	\$340,667,682
Net Current Assets	\$124,904,105

<sup>(1)</sup> Excludes revenues from System Development Charges. See "– System Development Charges." Source: Guam Waterworks Authority; see also APPENDIX A – "Consultant's Feasibility Study - Table 2-1."

#### The Water System

The Authority's water supply system consists of: (i) 120 wells (94 of which were operating as of April 2025); (ii) one active production spring (the "Santa Rita Spring"), as further as described below; (iii) one surface water treatment plant, the Ugum Water Treatment Plant (the "Ugum WTP"); (iv) one "Maui" well (the "Tumon Maui Well"), as further described below; (v) 30 booster pump stations, all of which are currently in service; (vi) 27 active reservoirs/tanks in service having a total active volume of 34.1 million gallons ("mg"); (vii) six additional reservoirs under repair/rehabilitation with expected total active volume of 4 mg; (viii) approximately 586 miles, including some 2-inch distribution lines, of water distribution pipelines; and (ix) approximately 3,800 fire hydrants. In addition, the Authority is in the process of constructing three additional reservoirs with expected total active volume of 7.0 mg. The Authority's water system does not include any documented/known lead pipes. The Authority is in the process of completing US EPA-required Lead Service Line Inventory in accordance with federal timelines.

Water Supply. Water sources on Guam include groundwater, surface water and springs, all of which are replenished by rainfall on Guam. Trade winds blow over Guam throughout the year and are responsible for significant rainfall and a relatively constant temperature between 76 and 88 degrees Fahrenheit throughout all seasons. Annual rainfall averages 80 inches in the western coastal area to 110 inches in the highest mountain locations in the south. Three-quarters of the total annual rainfall occurs between the months of June and December. The source of all fresh water on Guam is rainfall, whether as runoff and stored in reservoirs in southern Guam, or as recharge in the groundwater aquifer of northern Guam. According to the National Weather Service, total annual rainfall on Guam averaged approximately 101 inches in the last 20 years (2003-2024), with total annual rainfall at a high of approximately 140 inches in 2023. Because the source of all freshwater resources on Guam is rainfall, Guam's water resources are vulnerable to changes in precipitation. In addition to water produced at its own facilities from these three water sources, the Authority purchases water from the Navy.

Topographic features divide Guam into northern and southern areas. Because of the island's topography, potable water comes from groundwater in the northern portion of the island and primarily surface water in the southern portion of the island.

Groundwater. The Authority's groundwater wells provide approximately 90.4% of the Authority's water supply. In the north, a limestone plateau, bordered by steep cliffs, slopes southwesterly from an elevation of 600

feet to less than 100 feet at the midsection of the island. The plateau surface is generally flat and is interrupted by three hills: Barrigada Hill (elevation 665 feet), composed of a limestone dome, and Mount Santa Rosa (elevation 858 feet) and Mataguac Hill (elevation 630 feet), both composed of volcanic rock. There are no perennial streams within the northern area due to the permeability of the limestone. The main groundwater source is located under the plateau. The rainfall percolates through the limestone and forms a freshwater "lens" that floats at approximately sea level above deeper, higher density brackish and saltwater. Previous studies of the Guam aquifers have concluded that the freshwater lens under the northern part of the island can provide a maximum sustainable water supply of up to 80 million gallons per day ("mgd"). For Fiscal Year 2024, the Authority pumped approximately 37 mgd of groundwater, or about 46% of the sustainable yield, and the Navy and the United States Air Force (the "Air Force") collectively pumped approximately 3.0 mgd of groundwater, with an additional 0.2 mgd by other users, indicating total groundwater extraction of approximately 40.2 mgd, or about 50% of the sustainable yield.

The Water Resources Master Plan Update (2018-2037) (the "2018 WRMP Update") estimated that the Authority's groundwater requirements would increase to approximately 39.1 mgd by 2025. In addition, the United States Department of Defense ("DOD") projected an additional need for 1.7 mgd to support the United States ("U.S.") military realignment above the 3.4 mgd of groundwater pumped at that time. This would bring the total groundwater demand to 44.2 mgd, or 55.3% of the 80 mgd sustainable yield in 2025, assuming there are no improvements in water loss from current non-revenue water loss. The Interim WRMP Update (as defined herein), completed in 2025, identifies a delay in the planned military buildup, citing actual active Marine Corps personnel on Guam as of 2023 at 117 personnel, contrasted to the 2018 WRMP Update projection of 4,282 active-duty marines by the same year. The full contingent of marines and dependents (6,500) is now anticipated to arrive between 2024 and 2028.

In December 2013, the United States Geological Survey (the "USGS") completed a study of Guam's groundwater resources to determine the impacts of climate scenarios and recharge on the sustainable yield, and also to assess the impacts of increased pumping to accommodate the proposed military realignment. The results indicated that the groundwater resources can be used to meet the anticipated future needs; however, the groundwater resources will need to be managed during an extended drought to maintain acceptable salinity levels. As a result of the Supplementary Environmental Impact Statement and Record of Decision for the U.S. military realignment (as further described herein), released by the DOD in 2015, the DOD and the Authority partnered in the rehabilitation of 13 existing and installation of seven new observation wells for the Northern Guam Lens Aquifer (the "NGLA") for the purpose of improving data collection from the aquifer and management of the groundwater resources. This rehabilitation and installation work was completed in 2022. See also "FUTURE SYSTEM CAPITAL REQUIREMENTS – U.S. Military Realignment."

Upon completion of the NGLA observation well project, the DOD and the Authority signed a *Memorandum of Agreement to Address the Co-Management and Protection of the Northern Guam Lens Aquifer* on October 21, 2022, with the stated objective of sustaining and improving the NGLA observation well system to protect Guam's sole source aquifer, which serves both the DOD's and the Authority's water systems.

Wells are used to extract the groundwater for use. The Authority owns 120 wells, and well capacity varies from less than 100 gallons per minute ("gpm") to over 500 gpm. The number of wells in service varies from day to day to meet system needs. As of April 2025, of the 120 wells, 94 wells were operating to meet system demands, one well was in standby mode, two wells were secured (pending the addition of treatment for perfluorooctanesulfonic acid ("PFOS") and perfluorooctanoic acid ("PFOA") contamination), 14 wells were inactive, and nine wells were out of commission. Inactive wells are out of service due to pump or pump motor failure, and out-of-commission wells are out of service due to various reasons, including screen failure, casing failure, air production, etc. The inactive and out-of-commission wells are not considered necessary to meet the Authority's daily water needs, and constitute 10.5% of the Authority's 40.1 mgd of permitted well capacity. Most of the Authority's wells are drilled to below sea level to "tap" the basal aquifer, a freshwater lens that extends below sea level. The capacity of individual basal aquifer wells averages approximately 230 gpm which is designed to avoid localized over-pumping of the aquifer. The 2018 WRMP Update identifies several recommended capital improvement projects, including an on-going well rehabilitation program, well equipment overhaul program, capacity enhancement program for new well development and a well repair program to address pump upgrades, safety equipment upgrades, pump pedestal upgrades, replacement discharge piping, new chlorination equipment, electrical improvements and site work. Some of this work has been completed and capital projects for the continuing well rehabilitation program are included in the 2025-2029 CIP and the Interim WRMP Update. The Authority also determined that many of the production flow meters measuring output at the wells were not functioning properly. The Authority completed the replacement of flow meters for 65 production wells in 2023. The Authority recently rehabilitated five wells, and has completed the design to rehabilitate four additional wells and has plans to drill three new wells over the next two to three years. Pilot holes and capacity testing have been completed for the three new wells. The Authority anticipates construction of these wells will begin in the last quarter of 2025. The increased availability of these wells is expected to supplement the current production capacity and allow for maintenance on other wells and provide operational flexibility and redundancy, in an effort to strengthen the water system.

As part of the One-Guam Initiative (as further described herein), the Authority operates the Navy-owned Tumon Maui well. A "Maui" well is a horizontal tunnel excavated at the groundwater surface for the collection of fresh potable water. The Tumon Maui well has a design flow rate of 1.3 mgd and typically supplies on average 1.0 mgd, approximately 2.4% of the Authority's total annual water supply. The Authority also operates the Navy-owned Agafa Gumas well, which has a design flow rate of 0.36 mgd and typically supplies on average 0.25 mgd, approximately 0.7% of the Authority's total annual water supply. See also "THE SYSTEM – One-Guam Initiative."

The Authority also operates the water system for A. B. Won Pat International Airport Authority, Guam ("GIAA"). GIAA has three wells with two currently operational and a 1.5 mg storage tank. The wells are turned on and off as needed to keep the storage tank within the required levels since the well pumping capacity exceeds the airport demand. GIAA wells all have some level of contamination and include carbon filter treatment before water is pumped into the storage tanks. As of May 2025, the average demand of the GIAA system is approximately 0.24 mgd.

Springs. The Authority owns five springs located in the southern and central areas of the island. Only one spring, the Santa Rita Spring, has been consistently used, producing approximately 0.1 mgd, or approximately 0.2% of the Authority's total water supply. In addition, the Authority has a project planned to rehabilitate the currently inactive Asan Springs, which was built in 1929. The design phase has been completed; however, this project has been delayed due to property issues with United States Department of the Interior, National Park Service, who owns land on which part of the reservoir is located. Based on historical data, Asan Springs should produce approximately 0.4 mgd.

<u>Surface Water</u>. Surface water sources comprise approximately 9% of the Authority's total water supply. Generally, surface water resources are available in the southern portion of Guam. The southern portion of Guam is of volcanic origin and mountainous. A nearly continuous mountain ridge parallels the coastline from Piti (midisland on the west side) to Guam's southern tip. Several peaks in the ridge exceed 1,000 feet, with Mount Lamlam being the highest at 1,332 feet. The southern portion has more than 40 streams draining into the sea. The only large surface impoundment on the island for potable water, known as the Fena Valley Lake Reservoir, is located approximately 2.5 miles southeast of Santa Rita.

The Authority currently operates the Ugum WTP, which treats surface water collected from the Ugum River in southern Guam and supplies approximately 5.0% of the Authority's total water supply. The design flow rate of the Ugum WTP is 4.0 mgd; however, the Ugum WTP cannot always operate at full capacity when flows in the Ugum River are low or there is high turbidity in the Ugum River due to heavy rainfall. The current production rate is approximately 2.2 mgd, which is sufficient to meet the demand for the service area.

Improvements to the Ugum WTP were completed in 2024, including the complete replacement of the 15-year-old membrane system, new raw water pumps, thickener assembly, valves and process pumping systems. A new 2.0 mg concrete tank is under construction and is expected to be complete by the last quarter of 2025.

Navy Water. To help supply its customers on the southern part of Guam, the Authority also purchases water from the Navy pursuant to the terms of a 1982 Memorandum of Agreement under which the Authority is permitted to purchase up to 4.39 mgd (1,602 mg annually). After 2009, however, the Navy requested that the Authority work to reduce the total water purchases to a maximum of 3.5 mgd (1,277 mg annually). Although the Memorandum of Agreement has expired, the Authority and the Navy continue to operate in accordance with its provisions, while both parties undertake the development of a new utility service agreement, which is expected to be finalized later in 2025. The Navy collects surface water in the Fena Valley Lake Reservoir and also obtains spring

water from the Almagosa and Bona Springs. The combined spring production ranges from 0.17 mgd up to 2.0 mgd; however, these springs have fluctuating water quality and are not used when the water quality is low and, therefore, are not a continuous source. The surface water and spring water are treated at the Fena Water Treatment Plant (the "Fena WTP"), which is owned by the Navy and operated by a private contractor.

In Fiscal Year 2024, the Authority purchased approximately 810 mg of water from the Navy, or approximately 5.7% of the Authority's total demand. The Authority intends to continue reducing the amount of water purchased from the Navy by repairing leaks and addressing flow and pressure issues within the System. The Authority's projections for water to be purchased from the Navy in Fiscal Years 2025-2029 are set forth in Table 3 – "Historical and Projected Water Requirements."

The Navy initially sets water rates for a full fiscal year and such rates are subject to periodic adjustments. Customers, including the Authority, are required to prepay based on rates initially set by the Navy that may be adjusted on a quarterly basis. Over the past five years, both the Navy's water rates and the Authority's purchase volumes have fluctuated significantly, with annual costs averaging approximately \$6.4 million. In Fiscal Year 2024, the Authority increased the amount of water purchased from the Navy by 37.1%. Such increase was due to a valve station failure that restricted the Authority's ability to send northern well water to two central villages. A capital improvement project to replace the failed valve is ongoing and the Authority anticipates that the amount of purchased water from the Navy will decrease beginning in the last quarter of Fiscal Year 2025.

Navy rates ranged from \$10.36 to \$24.07 per kgal in Fiscal Year 2024. Since then, the Navy has committed to maintaining as much rate stability as possible and providing the Authority with sufficient notice of proposed rate increases If the Navy were to continue to significantly increase rates, the Authority would expect to reflect those increased rates in its annual rate review by the PUC; however, no assurance can be given that the PUC would increase rates sufficient to address all increased purchased water costs. See "REGULATORY ENVIRONMENT – Regulation of Ratemaking."

Water Requirements. The actual average supply requirement for the Authority's System during Fiscal Years 2020 through 2024 was approximately 14,919 mg; however, average actual water billed in the System during the same period, based on the Authority's water sales, was approximately 5,162 mg, meaning average annual unaccounted for (or non-revenue) water in the System during this time period was approximately 65.1% of the water delivered to the System (including some unbilled authorized consumption such as water for firefighting and flushing). The difference between supply and consumption is due to leakage, malfunctioning production and/or customer meters, and water used for line flushing, hydrant tests and maintenance, fighting fires, and similar activities. See also "— Water Loss Control Program — Non-Revenue Water."

The following table shows by sources and uses the Authority's historical water requirements for Fiscal Years 2020 through 2024 based on audited billing information and projected water requirements for Fiscal Years 2025 through 2029. Projected data reflect, among other things, the following: (i) with respect to Authority production, assumptions of annual reductions in production rates in certain wells to align with regulatory requirements, ongoing non-revenue water management efforts and prospective military realignment requirements; (ii) with respect to and Navy water purchases, assumptions of reduction of Navy water purchases where the Authority's sources can be used, and implementation of pipe replacement/loss reduction projects in areas served by Navy sources; and (iii) with respect to billed water, conservative assumptions include 1.2% decrease in billed water use for Fiscal Year 2025 relative to Fiscal Year 2024, and 0.1% average decrease in billed water use for Fiscal Year 2025 through Fiscal Year 2029.

# Table 3 Historical and Projected Water Requirements Fiscal Years 2020 through 2029 (gallons in millions)

			Historical					Projected		
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Sources Authority Production <sup>(1)</sup> Purchases from Navy <sup>(2)</sup>	14,393 554	14,030 565	14,175 476	13,762 591	14,164 810	14,161 762	13,975 526	13,975 521	13,870 482	13,870 482
Total Sources*	14,947	14,595	14,651	14,353	14,973	14,923	14,501	14,496	14,352	14,352
Uses										
Billed Water <sup>(3)</sup>	5,758	5,340	5,280	5,062	5,119	5,060	5,019	5,023	5,029	5,036
Non-Revenue Water	9,189	9,255	9,371	9,291	9,855	9,863	9,482	9,473	9,323	9,316
Total Uses*	14,947	14,595	14,651	14,353	14,974	14,923	14,501	14,496	14,352	14,352

<sup>(1)</sup> Historical values for Fiscal Years 2020 through 2024 are based on the Authority's water system production reports. Projections for Fiscal Years 2025 through 2029 are based on five-year actual annual average (2020-2024) with adjustments year over year to align production rates to permit values and general reductions from continued implementation of the water loss control program.

Source: Guam Waterworks Authority; 2025-2029 Financial Plan.

*Water Distribution System*. The Authority's water distribution system includes an extensive network of transmission and distribution pipelines, booster pump stations, reservoirs/tanks and approximately 3,800 fire hydrants.

<u>Pipelines</u>. The existing piping network comprises approximately 586 miles of ductile iron, polyvinyl chloride ("**PVC**"), cast iron, asbestos cement, and galvanized steel pipe. Approximately 80 miles of piping is documented to have been installed prior to 1980, approximately 246 miles of piping was installed between 1980 and 2011, and approximately 260 miles of piping has no documented installation date but a significant portion is expected to be older piping installed during the Navy period of control. Up to 15 miles of piping is constructed of 2-inch diameter or smaller pipe, up to 7.5 miles of which may be constructed of galvanized steel, which is believed to be a significant source of System leaks due to the poor corrosion resistance of buried steel pipe and poor construction practices.

Booster Pump Stations. The Authority has 30 booster pump stations, all of which are currently in service. Twenty-one of the active booster pump stations are equipped with working emergency generators and nine are served by portable generators to ensure continued operation during power failures. Recent upgrades to six of the pump stations have been completed over the past 10 years. The upgraded southern pump stations allow the Authority to bypass water tanks for routine inspection and maintenance. The booster pump stations include 71 pumps, 89% of which were operational as of May 2025.

The Authority assessed all water booster pump stations as part of the 2018 WRMP Update and developed recommendations for prioritized upgrades to all systems. The Authority's CIP has included booster pump station upgrades (12 completed since 2013). Some of the upgrades and several new pump stations have been completed as part of the Authority's on-going capital improvement of water reservoirs. Rehabilitation of other pump stations is still required. The scope of the recommended improvements includes pump and mechanical upgrades, site improvements and structural and electrical upgrades. The 2025-2029 CIP (as defined and further described herein) includes projects for continued upgrades to the existing booster pump stations.

<sup>(2)</sup> Historical values for Fiscal Years 2020 through 2024 are based on actual purchases. Fiscal Years 2023 and 2024 values reflect increased purchases during post-Typhoon Mawar response and recovery and to augment the Authority's supply in isolated areas resulting from a failed valve station. Projections for Fiscal Years 2025 through 2029 assume reductions from water loss are largely dependent on water line replacements and any immediate reductions will not be material.

<sup>(3)</sup> Historical values for Fiscal Years 2020 through 2024 are based on billing data and includes post-billing adjustments. Projections for Fiscal Years 2025 through 2029 of billed volumes reflect conservative assumptions based on an analysis of historical raw billing data net of non-revenue accounts and do not include post-billing adjustments. These projections do not incorporate anticipated yet still uncertain increases in billed water volumes associated with prospective military realignment.

Totals may reflect rounding.

Reservoirs. The Authority currently has 33 reservoirs, 27 of which are currently in active use having a total capacity of 34.1 mg and six of which are currently off-line pending repair, rehabilitation or replacement having a total capacity of 4 mg. The Authority's reservoirs are predominantly ground-level tanks. New tanks are made from concrete while older tanks are made from steel. There are no steel-elevated tanks still in service. In addition, the Authority is in the process of constructing three additional concrete reservoirs with expected total capacity of 7 mg. Once the three additional reservoirs are completed and repairs are made to the off-line reservoirs, the Authority expects to have a total of 36 reservoirs having a total capacity of 45.1 mg.

The 2011 Court Order originally required a hydraulic analysis to assess the adequacy and guide the repair, rehabilitation, or replacement of 36 of the Authority's then-existing water storage reservoirs. The hydraulic analysis determined that some of the reservoirs should be demolished and replaced with new reservoirs while other reservoirs should be repaired or rehabilitated, which requires reservoirs to be taken offline and the use of pumped bypasses or temporary reservoirs to facilitate repairs. In 2023, the Guam District Court approved a revised hydraulic analysis submitted by the Authority, after review and concurrence by US EPA, determining that the repair/rehabilitation/replacement of four of the original 36 reservoirs were no longer hydraulically required due to improvements in the distribution network, thereby reducing the total number of reservoirs requiring capital improvements under the 2011 Court Order to 32. As of May 1, 2025, 23 reservoirs have been repaired or replaced with new reservoirs and nine reservoirs remain to be completed (six are in the process of rehabilitation; three are currently under construction). The deadline to complete this last project under the 2011 Court Order, which the Authority expects to meet, is December 31, 2025. For more information regarding the 2011 Court Order, see "REGULATORY ENVIRONMENT – Environmental Regulations – 2003 Stipulated Order and 2011 Court Order." Furthermore, three of the four reservoirs that are no longer hydraulically required are under contract for optional repair and/or rehabilitation.

## The Wastewater System

General. The Authority provides wastewater service to a portion of Guam's general population, Andersen Air Force Base, Marine Corps Base Camp Blaz, and some U.S. Naval facilities in the northern end of the island. The main U.S. Naval base located in southern Guam is served by its own wastewater collection and treatment system. For planning purposes, Guam is divided into seven wastewater districts based on population distribution and the topography of the island: Northern District, Hagåtña, Agat-Santa Rita, Umatac-Merizo, Inarajan, Baza Gardens and Pago Socio. The Authority's wastewater system includes six wastewater treatment plants and an extensive collection system.

Unlike the Authority's water system, which serves essentially the entire civilian population of Guam, there is a significant percentage of the population that is not served by the Authority's wastewater system. This is particularly true in the northern area of Guam, where many homes rely on individual septic tanks or other on-site disposal systems. Based on a comparison of the average number of water customers and wastewater customers for Fiscal Year 2024, approximately 12,535 customers, or approximately 28.7% of water system customers (primarily residential), do not have sewer service.

## Wastewater Collection Systems

General. The Authority's wastewater collection systems consist of approximately 330 miles of gravity sewer pipes and force main pipes that collect sewage and transport it to the six wastewater treatment plants. There are 84 wastewater pump stations (all of which were active as of May 2025) with 186 individual pumps (83% of which were operational as of May 1, 2025) and 7,310 manholes. The older portions of the wastewater collection system date back to the 1940s. Although the majority of the piping material is PVC and asbestos cement, the System also includes concrete, iron, clay, polyethylene plastic and other materials.

System Condition. According to the Consultant, the overall condition of the wastewater collection system is poor to fair. Approximately 34% of the piping is constructed of asbestos cement, which has experienced accelerated rates of corrosion in certain sections of the collection system. Because of the poor condition of such piping, repair or replacement will be necessary for most of the asbestos cement piping in the future. The Authority has completed five projects over the past five years to address the asbestos cement piping issues by repairing or replacing approximately 11 miles of the asbestos cement pipe in the system, and more projects are planned.

The Authority completed infiltration and inflow analyses and sewer system evaluation surveys ("SSES") for northern, central, and southern wastewater collection service areas, and subsequently initiated repairs of identified acute defects and correction of areas of infiltration and inflow. The Authority completed cleaning and closed circuit television ("CCTV") inspections of the system in accordance with the requirements of the 2011 Court Order and maintains an on-going cleaning and CCTV program for maintenance of the wastewater collection system. A "hot spots" program was established to address areas identified with the SSES and CCTV work as requiring frequent cleaning, such as sags in the line. Intensive maintenance of these "hot spots" will continue until permanent repairs to the lines can be completed. The Authority utilized the information from these surveys, CCTV, and maintenance programs to inform capital improvements needed as part of the 2018 WRMP Update. The Authority's capital improvement program places significant emphasis on wastewater collection system repair and rehabilitation. As an example, the Authority recently completed a construction contract for the first phase of "hot spot" repairs and has also completed a \$30 million cured-in-place-pipe ("CIPP") rehabilitation of nine miles of the Northern District WWTP sewer interceptor. Additionally, the Authority completed all construction for the two-phases of CIPP rehabilitation of gravity sewer mains from Asan to Hagatna in June 2022. Over the last 10 years, the Authority has completed approximately 20 miles of rehabilitated sewer infrastructure.

The Authority's capital improvement program includes projects to rehabilitate or replace collection system elements to reduce the inflow into the sewer system and lower the flow rates in the collection system and into the wastewater treatment plants. The 2025-2029 CIP (as defined and further described herein) includes projects to rehabilitate wastewater pump stations and an ongoing supervisory control and data acquisition ("SCADA") master plan project to provide centralized monitoring and reporting of the pump stations. See "FUTURE SYSTEM CAPITAL REQUIREMENTS – Capital Improvement Program."

Wastewater Treatment Plants. The Authority owns and operates six wastewater treatment plants. Previously, the Authority had a seventh wastewater treatment plant, the Baza Gardens Wastewater Treatment Plant (the "Baza Gardens WWTP"); however, Baza Gardens WWTP was converted to a pump station and was decommissioned in December 2018. The following section describes the existing wastewater treatment plants.

In 2024, the Authority completed its NPDES permit renewal application for the Northern District WWTP, the Hagåtña WWTP, the Agat-Santa Rita WWTP and the Umatac-Merizo WWTP. The current permits, issued in 2020, remain valid under administrative extension pending the US EPA's issuance of new permits, which the Authority anticipates receiving later in 2025.

Northern District WWTP. The Northern District WWTP, one of the Authority's two largest wastewater treatment plants, serves approximately 76,000 people in the northern area of Guam. The facility has an ocean outfall, constructed in 2009, consisting of a large diameter pipe extending over 1,850 feet away from shore to discharge treated effluent into the Philippine Sea at a depth of approximately 150 feet. The Northern District WWTP has a design capacity of 12.0 mgd; however, the 2011 Court Order currently limits the average daily flow to 9.0 mgd. The Northern District WWTP is currently treating approximately 4.3 mgd (approximately 51.3% of the Authority's average daily treatment).

The Northern District WWTP is operating in compliance with the current NPDES permit, most recently issued by the US EPA in 2020, which requires secondary treatment. The Authority completed a project to upgrade the Northern District WWTP to secondary treatment in August 2022. The Authority has completed its NPDES permit renewal application, and the current permit remains valid under administrative extension pending the US EPA's issuance of a new permit expected later in 2025.

In connection with the U.S. military realignment on Guam, it is expected that a new DOD wastewater collection system will be constructed on property owned by the DOD and tied into the Authority's wastewater collection system. The wastewater will then be conveyed to the Northern District WWTP for treatment and disposal. Starting in 2023, a portion of the recently constructed sewer collection system for Marine Corps Base Camp Blaz was tested and initial test flows were discharged to the Authority's collection system. Such intermittent discharges will continue until such time as facilities on the Marine Corps Base are continuously occupied. The U.S. military realignment is expected to increase wastewater flows by 1.2 mgd, as the recently completed upgrades accounted for increased wastewater flows from the Marine Corps Base. This would have a significant indirect but manageable

impact on the Northern District WWTP. See also "FUTURE SYSTEM CAPITAL REQUIREMENTS – U.S. Military Realignment."

<u>Hagåtña WWTP</u>. The Hagåtña wastewater treatment plant (the "Hagåtña WWTP"), one of the Authority's two largest wastewater treatment plants, serves approximately 82,645 people in the central area of Guam. The facility has an ocean outfall, constructed in 2008, consisting of a large diameter pipe extending approximately 2,120 feet away from shore to discharge the treated effluent into the Philippine Sea at a depth of approximately 275 feet. The Hagåtña WWTP has a design capacity of 12.0 mgd and is currently treating approximately 3.2 mgd (approximately 37% of the Authority's average daily treatment).

The 2011 Court Order mandated that the Hagåtña WWTP comply with its then-existing NPDES permit. Accordingly, the Authority completed interim treatment improvements in 2013 and an upgrade of the plant to provide chemically enhanced primary treatment in 2014. The Authority is currently in compliance with the 2011 Court Order with respect to the Hagåtña WWTP. However, the US EPA subsequently issued an NPDES permit for the plant that became effective on June 1, 2013 (the "2013 Hagåtña Permit"), which includes secondary treatment standards that the existing facility is unable to meet until secondary treatment upgrades are implemented. The US EPA issued a renewed NPDES permit in 2020, which expired in 2024. The Authority timely filed for a renewed permit. The US EPA has not provided a timeframe for renewal and has administratively extended the existing permit. The current NPDES permit also requires secondary treatment standards. The Authority originally estimated that the design and construction necessary to satisfy the secondary treatment requirements would take approximately five years, and the cost of upgrading the Hagåtña WWTP would be approximately \$268 million (in 2023 dollars) based on planning conducted as part of the Authority's 2018 WRMP Update. The US EPA has issued interim effluent limits with which the Authority is in compliance, however, pursuant to the 2024 Partial Consent Decree, the Authority is required to submit a feasibility study for secondary treatment upgrades to the Hagåtña WWTP to the US EPA by January 2031 for review and approval. The feasibility study is required to include analyses of design options, alternative locations, climate change and sea level rise, and planning level construction cost estimates and construction timelines. See "REGULATORY ENVIRONMENT - Environmental Regulations - 2024 Partial Consent Decree."

Agat-Santa Rita WWTP. The Agat-Santa Rita wastewater treatment plant (the "Agat-Santa Rita WWTP") was completed in 2018. It serves approximately 2,300 people in the Agat-Santa Rita and the Baza Gardens wastewater districts. The Agat-Santa Rita WWTP has a design flow rate of 1.6 mgd during dry weather and 9.3 mgd during wet weather. The current average daily flow is 0.69 mgd (approximately 8.1% of the Authority's average daily treatment). The effluent from the plant is sent through a combined outfall shared with the U.S. Navy's Apra Harbor wastewater treatment plant and discharged to the ocean through the Tipalao Bay outfall. The outfall terminates at a diffuser located approximately 1,750 feet from shore at a depth of 130 feet. Flow from the recently closed Baza Gardens WWTP is treated at the Agat-Santa Rita WWTP. The Agat-Santa Rita WWTP is operating in compliance with the current NPDES permit, most recently issued by the EPA in 2020, which requires secondary treatment. The Authority has conducted infiltration and inflow analyses and SSES at the Agat-Santa Rita WWTP, which have shown reported instances of excessive infiltration and inflow enter into the sewer collection system. Some collection system repairs have been completed and other repair and rehabilitation projects are under way in Agat and Santa Rita to reduce such inflows. In addition, the upgraded Agat-Santa Rita WWTP includes sufficient equalization storage to meter wet-weather inflows so the plant operates within NPDES permit conditions.

Umatac-Merizo WWTP. The Umatac-Merizo wastewater treatment plant (the "Umatac-Merizo WWTP") is located between the villages of Umatac and Merizo and serves approximately 4,000 people. An upgrade to the Umatac-Merizo WWTP was completed in 2020 and included improvements to the aeration basin and overland percolation fields, as well as new pump station, upgrades to the existing pump station, a new effluent storage tank and disinfection facility. The plant has a permitted capacity of 0.39 mgd and a current average daily flow of 0.2 mgd (approximately 2% of the Authority's average daily treatment). Although the Umatac-Merizo WWTP is a non-discharging facility most of the year, the current NPDES permit, most recently issued by the EPA in 2020, allows it to discharge treated effluent during the wet season (generally June through September) to the Toguan River. During dry weather, treated effluent is disposed in wetland treatment system terraces, where evapotranspiration and percolation of treated effluent occurs. The Umatac-Merizo WWTP is operating in compliance with the current NPDES permit.

<u>Inarajan WWTP</u>. The Inarajan wastewater treatment plant (the "**Inarajan WWTP**") is located north of the village of Inarajan. The Inarajan WWTP has a design capacity of 0.19 mgd, and the current daily flow is 0.05 mgd (approximately 0.6% of the Authority's average daily treatment). Treated effluent is discharged to percolation basins. The Inarajan WWTP is not subject to a NPDES permit because the facility does not discharge to surface waters and is currently in compliance with applicable discharge requirements.

<u>Pago Socio WWTP</u>. The Pago Socio wastewater treatment plant (the "**Pago Socio WWTP**") is the smallest wastewater treatment plant owned and operated by the Authority, providing less than 1% of the Authority's wastewater treatment capacity. The Pago Socio WWTP does not discharge to surface water; influent is treated in a centralized septic tank and effluent is disposed via leach fields. The Pago Socio WWTP is not subject to an NPDES permit because the facility does not discharge to surface waters and is currently in compliance with applicable discharge requirements. The Authority plans to convert the Pago Socio WWTP to a pump station, abandon the plant and transfer the influent wastewater to the Hagåtña WWTP.

For more information regarding the wastewater treatment plants, including the condition of each wastewater treatment plant, see APPENDIX A - "Consultant's Feasibility Study - Wastewater System - Wastewater Treatment and Disposal Systems."

See also "REGULATORY ENVIRONMENT – Environmental Regulations – *Compliance with the CWA – Wastewater System*" and "FUTURE SYSTEM CAPITAL REQUIREMENTS."

#### **One-Guam Initiative**

The framework for the cooperation on water utilities between the Authority and the Navy (the "One-Guam Initiative") began in 2010 with a memorandum of understanding intended to provide the mechanism by which utility services could be improved to address impacts from the planned U.S. military buildup. Significantly, it called for cooperation between the Authority, the Navy and their respective leadership in ensuring the long term, sustainable management of the Northern Guam Lens Aquifer. This led to another memorandum of understanding in 2016 (the "2016 MOU") which expanded the cooperation between the Authority and the Navy and called for the expansion and rehabilitation of the aquifer observation well system.

The 2016 MOU also called for a "proof-of-concept" project to demonstrate the Authority's ability to operate the Navy-owned Tumon Maui Well water production facility to the Navy's reliability, safety and security requirements. The Authority successfully completed that proof-of-concept and has been operating the facility and another production well under license from the Navy for nearly 10 years. The Authority has completed or is in the process of conducting additional inter-operability projects with the Navy, including system inter-ties at jointly sited water reservoirs, and supply exchange points to facilitate major maintenance operations. More recently, the Authority and the Navy are pursuing joint evaluation of as per- and polyfluoroalkyl substances ("PFAS") treatment technologies for implementation in advance of new federal safe drinking water regulations. Additionally, agreements have been put in place for data sharing and cybersecurity coordination, and joint hydraulic modeling and master planning coordination are under consideration.

The One-Guam Initiative continues to be a vehicle through which the Navy and the Authority achieve coordinated cooperation for utility operations, training, and capital improvements. There have also been several shared training sessions amongst the respective staff of each entity, and a commitment to further pursue such activity going forward. The Authority and the Navy executed a *Memorandum of Agreement to Address the Co-Management and Protection of the Northern Guam Lens Aquifer* in October 2022 with the stated objective of sustaining and improving the NGLA observation well system to protect Guam's sole source aquifer, which serves both DOD and GWA water systems. Following the aftermath of Typhoon Mawar, the Authority and the Navy executed the *Intergovernmental Support Agreement for Water and Wastewater Goods and Support Services* in July 2023, which establishes the terms and conditions under which the parties may provide each other mutual assistance of water and/or wastewater goods and support services for a period of 10 years. Finally, the Navy and the Authority continue to work on the development of an updated utility services agreement to formalize the manner in which the Authority and the Navy purchase water and wastewater services, which is expected to be finalized later in 2025.

## Customers

*Water Customers*. The following table shows water demand and water sales revenues by customer class for Fiscal Year 2024.

Table 4
Water Demand and Water Revenues by Customer Type
Fiscal Year 2024

Customer Type	Water Demand (million gallons)	Percent of Total Water Demand	Water Revenues	Percent of Total Water Revenues
Residential	3,116	61%	\$42,668	52%
Commercial	903	18	18,027	22
Hotel	636	12	12,143	15
Government & Federal	464	9	9,088	11
Total <sup>(1)</sup>	5,119	100%	\$81,926	100%

<sup>(1)</sup> Totals may not add due to rounding. Source: Guam Waterworks Authority

*Wastewater Customers*. The following table shows wastewater flows and wastewater sales revenues by customer class for Fiscal Year 2024.

Table 5
Wastewater Flows and Wastewater Revenues by Customer Type
Fiscal Year 2024

Customer Type	Wastewater Flows (million gallons)	Percent of Total Water Demand	Wastewater Revenues	Percent of Total Water Revenues
Residential	1,849	49%	\$11,077	24%
Commercial	549	14	9,280	20
Hotel	425	11	10,836	24
Government & Federal	983	26	14,677	32
Total <sup>(1)</sup>	3,806	100%	\$45,870	100%

<sup>(1)</sup> Totals may not add due to rounding. Source: Guam Waterworks Authority

*Largest Customers*. The following two tables show the Authority's 10 largest water customers and wastewater customers, respectively, by revenue for Fiscal Year 2024.

Table 6
Ten Largest Water Customers
for Fiscal Year 2024

Customer Name		Annual Revenue	Percent of Annual Gross Revenue
1. Guam Department of Education <sup>(1)</sup>		\$2,955,418	3.61%
2. Pacific Islands Club		1,885,711	2.30
3. Guam Power Authority		1,821,851	2.22
4. Hotels of the Marianas Inc		1,051,107	1.28
5. Tanota Development LLC		1,047,637	1.28
6. Outrigger Guam Resort		1,014,421	1.24
7. University of Guam		1,001,140	1.22
8. Guam Department of Corrections		965,343	1.18
9. MDI Guam Corporation		861,253	1.05
10. Hyatt Regency Guam		803,285	0.98
	Total <sup>(2)</sup> :	\$13,407,167	16.4%

<sup>[1]</sup> Includes all 41 public schools and administrative and support facilities.

Source: Guam Waterworks Authority.

Table 7
Ten Largest Wastewater Customers
for Fiscal Year 2024

	Annual	Percent of Annual
Customer Name	Revenue	Gross Revenue
1. U.S. Air Force (U.S. Department of Defense)	\$ 7,133,968	15.55%
2. U.S. Navy (U.S. Department of Defense)	2,443,160	5.33
3. Guam Department of Education <sup>(1)</sup>	1,763,868	3.85
4. Tanota Development LLC	1,122,938	2.45
5. Hotels of the Marianas Inc	1,120,658	2.44
6. Guam Power Authority	1,092,558	2.38
7. Outrigger Guam Resort	1,086,790	2.37
8. Hyatt Regency Guam	858,373	1.87
9. Pacific Islands Club	783,674	1.71
10. Hotel Nikko Guam	687,087	1.50
Total <sup>(2)</sup> :	\$18,093,074	39.4%

<sup>(1)</sup> Includes all 41 public schools and administrative and support facilities.

Source: Guam Waterworks Authority.

<sup>(2)</sup> Total may reflect rounding.

<sup>(2)</sup> Total may reflect rounding.

#### **New Water and Sewer Installations**

The following two tables summarize the new water installations and new sewer installations, respectively, for the Fiscal Years 2020 through 2024.

Table 8
New Water Installations
Fiscal Years 2020-2024

Customer Type(1)	2020	2021	2022	2023	2024
Residential	223	310	330	304	298
Government	1	0	1	1	0
Commercial	5	7	9	8	7
Agricultural	0	3	6	3	0
Total	229	320	346	316	305

<sup>(1)</sup> Does not include irrigation, hotel, federal or golf course customer types, for which there were no new water installations in Fiscal Years 2020-2024.

Source: Guam Waterworks Authority.

Table 9 New Sewer Installations Fiscal Years 2020-2024

Customer Type(1)	2020	2021	2022	2023	2024
Residential	63	65	60	72	69
Government	0	0	2	0	0
Commercial	2	4	3	6	4
Total	65	69	65	78	73

Does not include hotel or federal customer types, for which there were no new sewer installations in Fiscal Years 2020-2024. Source: Guam Waterworks Authority.

## **System Development Charges**

Public Law 26-164, enacted in 2003, required the Authority to develop and implement Water and Sewer System Development Charges ("System Development Charges" or the "SDCs"). After approval by the CCU and the PUC, the SDCs were implemented in March 2010. SDCs are one-time fees assessed on each user connecting property to the Authority's water or wastewater systems, as applicable, for the first time or on each builder if the density of development on an existing connection is increased. SDCs are payable at the time of construction permitting; however, certain qualified residential customers are allowed to amortize SDCs over a specified time period. Although SDCs may vary depending on water meter size, a typical combined water and wastewater SDC for a new residential connection is \$5,600, and a typical combined water and wastewater SDC for a new commercial connection is \$14,002 for a 1-inch meter size.

Revenues generated by SDCs are <u>not</u> included in the Revenues pledged under the 2005 Indenture but are to be applied to the costs associated with the construction, expansion, upgrading and repair of water and wastewater facilities resulting from such connections or to pay the principal of, interest on and other financing costs related to, debt obligations incurred by or on behalf of the Authority.

The following table sets forth SDC revenues billed by the Authority for the Fiscal Years 2020 through 2024.

# Table 10 Water and Sewer System Development Charges Fiscal Years 2020-2024

2020	2021	2022	2023	2024
\$756,338	\$1,596,459	\$1,245,361	\$1,359,167	\$1,698,842

Source: Guam Waterworks Authority.

The Authority expects to pay for a portion of its capital improvement program with revenues generated from SDCs. See "FUTURE SYSTEM CAPITAL REQUIREMENTS – Capital Improvement Program" and APPENDIX C – "FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2024," Note 14.

#### **Water Loss Control Program**

Non-Revenue Water. One of the Authority's continuing priorities is reducing the level of the System's non-revenue water. Non-revenue water is defined by the American Water Works Association as "unbilled authorized consumption (e.g., water for firefighting and flushing), plus apparent losses (e.g., customer meter inaccuracies, unauthorized consumption and systematic data handling errors), plus real losses (e.g., system leakage and storage tank overflows)." In other words, non-revenue water is the difference between the amount of water put into the distribution system and the amount of water billed to customers. The quantity of water put into the system is recorded by the production meters and the amount of water billed to customers is recorded by the customer meters. Non-revenue water is not only caused by water leaks but also metering inaccuracies, water theft, water tank overflows and other undocumented uses. While water leaks are a large contributor, the other listed factors can be significant. The Authority's level of non-revenue water for Fiscal Year 2024 was approximately 65.1%, with 60.3% attributable to real losses.

The Authority completed the Water Loss Control Analytical Study in 2021. The study determined that national water industry organizations have recently moved away from using percentage non-revenue water as a suitable performance indicator for water loss control; instead, the American Water Works Association supports the use of the key performance indicator of real losses in gallons per connection per day. The Authority has adopted this recommendation and is using this metric for annual reporting to the PUC in addition to the percentage non-revenue water metric. In Fiscal Year 2024, real losses were 575 gallons/connection/day.

Components of Water Loss Control Program. With the original goal of reducing the level of the System's non-revenue water, the Authority initially focused on a project-based approach, completing leak detection projects and training personnel to sustain an ongoing leak detection program. Although significant improvements were made, the age and condition of the System continued to impact the level of non-revenue water. The Authority then shifted its focus from a project-based approach to the current process-based approach through its water loss control program (the "Water Loss Control Program"). The Water Loss Control Program includes efforts to reduce leak repair times, enhance and sustain a leak detection program, install master meters and create district metered areas, realign pressure zones, and enhance the ongoing line replacement program, each of which are further described below.

<u>Leak Repair</u>. The Authority has added personnel to deploy more leak repair crews, and increased available equipment resources, including contracted equipment services, to improve response and repair times. Since 2018, the Authority has reduced its daily leak repair work order backlog by more than 95%, from over 330 open work orders per day in 2018 to fewer than 15 open work orders per day in 2025 through April 30, 2025.

<u>Leak Detection Program</u>. In 2019, the Authority added staff, equipment, and training to the program. In addition, the Authority expanded its tools through the use of remote (satellite) leak detection, in a year-long pilot test, to evaluate the efficacy of this technology to detect leaks in portions of the distribution system for which the Authority may not have documentation for existing water lines (e.g., former military installations). Continued development of the leak detection capabilities, used in conjunction with other components of the Water Loss Control

Program, such as district metered areas, have enhanced the Authority's ability to conduct water loss reduction campaigns. The Authority currently has three full-time leak detection teams with additional equipment and training.

Master Meters and District Metered Areas. In 2019, the Authority initiated a pilot test of industry best practice methods to reduce water losses using master meters at discrete areas to track supply and consumption and to identify significant differences between them. The Authority used master meters at three distinct and easily isolated areas (each, a "District Metered Area"). The results of the pilot test indicated that in these three District Metered Areas, reduction in water loss ranged from 30% to 61% with an average of 45% across all three District Metered Areas. The Authority subsequently completed a Water Loss Control Analytical Study, which recommended full implementation of 36 District Metered Areas throughout the Authority's distribution system with a comprehensive permanent leak detection program. In July 2021, the Authority engaged a contractor for the island-wide implementation of District Metered Areas and technical assistance with standing up the recommended leak detection campaigns and loss control program. The Authority has completed 21 of 36 District Metered Areas with plans to complete the remaining 15 District Metered Areas by 2028. The Authority is monitoring flows and conducting leak detection surveys in all established District Metered Areas. The remaining additional District Metered Areas will be established as work on the installation of metering equipment proceeds through capital improvement projects under either a specific District Metered Areas design contract or the Pressure Zone Realignment program. See "- Pressure Zone Realignment" below. Data gathered from this program indicates that the majority of leaks detected and repaired are in smaller diameter service laterals that are beyond their useful service life; the Authority has accordingly focused capital replacement for water lines in its 2025-2029 CIP to align with the findings of the Water Loss Control Program.

Pressure Zone Realignment. In 2015, the Authority developed a Pressure Zone Realignment Plan (the "Pressure Zone Realignment Plan") focused on enhancing the distribution system and improving service delivery by aligning service areas to the appropriate service pressures through the creation and/or adjustment of pressure zones within the distribution system. Pressure zone realignment is expected to improve service pressures throughout the island, which would contribute to reduced water loss by minimizing background leaks caused by overpressure in certain water service areas. The Authority began to implement the Pressure Zone Realignment Plan, including the integration of master meter installations where appropriate, in 2019. A construction bid was issued in 2019 and the construction contract for the first phase of the improvements was awarded in March 2020. As of April 30, 2025, construction of the first phase is complete. Construction of the Phase 2 work is currently on-going. Phase 3 design work is 75% complete.

Line Replacement Program. The Authority initiated a line replacement program in 2012. To date, the Authority has replaced approximately 21 miles of line in four phases. In addition to this line replacement program, the current capital improvement program includes approximately \$150 million for asbestos cement pipes, 2-inch galvanized pipes, and general pipe replacement projects. The Authority has three multi-year, task-order-based design contracts for these water line replacement programs currently awarded with initial Task Orders for project prioritization and design on-going. Additional design task orders under each contract will be executed once the initial task order for project assessment and prioritization is completed.

<u>Production Meters</u>. Production meters record the volume of groundwater pumped into the System. However, faulty production meters have resulted in under- and over-reporting of water production, which impacts non-revenue water calculations. In 2017, the Authority initiated a project to verify production meter performance and to develop plans to replace failed and underperforming meters at the Authority's groundwater well sites. The Authority issued a contract in April 2020 to replace production meters and above-ground piping at 30 of 60 wells identified as needing meter replacements. The project was completed in 2023. Procurement is on-going for additional production meters for the remaining wells.

#### **Rates and Charges**

*General.* The Authority and the CCU establish proposed water and wastewater rates and charges as part of a five-year financial plan and present them to the PUC for regulatory review and approval. Thereafter, PUC approval of the proposed rate plan occurs annually with a review of revenue requirements and subsequent true-up analysis to evaluate the necessary level of rate adjustment based on actual financial performance; therefore, while

the PUC may approve a proposed five-year rate plan, annual rate adjustments are typically subject to the results of a true-up analysis and additional PUC approval.

Current Water Rates. Currently, the Authority's water rates consist of a base monthly water charge (the "base rate") that varies according to meter size and a volumetric charge based on water consumption. Residential customer volumetric rates consist of two tiers – the first tier is a "lifeline rate" per 1,000 gallons for monthly usage of up to 5,000 gallons, and the second tier is a "non-lifeline rate" per 1,000 gallons for monthly usage above 5,000 gallons. In Fiscal Year 2024, approximately 55% of total residential water consumption fell within the lifeline tier. Water rates for commercial/government and agriculture/irrigation customers have similar rate structures for basic monthly water charges. These customers are assessed a monthly base charge by meter size. Volumetric charges consist of a uniform rate per 1,000 gallons (i.e., the rate does not change at different levels of water consumption) for commercial/government customers, another uniform rate per 1,000 gallons for agriculture customers, and a uniform rate for irrigation customers. Adjustments to the residential lifeline rate are only allowed if the Authority's cost of service has increased more than 20% following the year of the most recent adjustment to the lifeline rate.

In March 2024, the PUC approved – in principle only – a new rate design structure that adds a third tier to the residential customer volumetric rates and reduces the lifeline rate volume threshold from 5,000 gallons to 3,000 gallons. The second volumetric tier will end at 10,000 gallons, while the third tier will be any consumption above that threshold. The PUC has not yet approved the actual implementation of the Modified Rate Design; however, the Authority anticipates that the PUC will take action on the proposed rate structure changes as part of the Fiscal Year 2026 True-Up analysis by September 2025. See "– Modified Rate Design" and "– Fiscal Year 2026 True-Up."

Current Wastewater Rates. Currently, the Authority's wastewater rates consist of a flat monthly rate for residential customers (considered a lifeline rate) and a volume-based rate – 80% of water consumption – for commercial, government and federal customers. Water consumption that does not return to the wastewater system – outdoor irrigation meters, for example – is not subject to the 80% charge.

In March 2024, the PUC approved – in principle only – a new rate design structure that eliminates the flat monthly rate for residential customers, and instead establishes a uniform, volumetric wastewater rate for residential customers based on 80% of water consumption and implements a monthly wastewater base charge by meter size. Under the new rate design, the wastewater base charge will also be applied to non-residential customers. The PUC has not yet approved the actual implementation of the Modified Rate Design; however, the Authority anticipates that the PUC will take action on the proposed rate structure changes as part of the Fiscal Year 2026 True-Up analysis by September 2025. See "– *Modified Rate Design*" and "– *Fiscal Year 2026 True-Up*."

Current Legislative Surcharge. Currently, a "legislative surcharge" or "retirement benefits surcharge" is assessed on the portion of water and wastewater bills subject to the non-lifeline rate. Revenues from the legislative surcharge are used to pay all retiree benefits. The legislative surcharge is subject to an annual true-up analysis that adjusts the charge to match the actual retiree benefit cost. Revenues from the legislative surcharge were approximately \$3.01 million in Fiscal Year 2022 and \$3.09 million in Fiscal Year 2023 and \$4.06 million in Fiscal Year 2024. The current legislative surcharge for Fiscal Year 2025, effective October 1, 2024, is 3.5%.

In March 2024, the PUC approved – in principle only – a new rate design structure that applies the legislative surcharge to all rate components (including the lifeline rate). The PUC has not yet approved the actual implementation of the Modified Rate Design; however, the Authority anticipates that the PUC will take action on the proposed rate structure changes as part of the Fiscal Year 2026 True-Up analysis by September 2025. See "– *Modified Rate Design*" and "– *Fiscal Year 2026 True-Up*."

Historical Rate Adjustments. In June 2019, the CCU approved the Authority's five-year financial plan and rate application that proposed base, lifeline and non-lifeline water and wastewater rate increases for Fiscal Years 2020-2024. The Authority subsequently petitioned the PUC for consideration of the financial plan and rate application, and the PUC engaged Georgetown Consulting Group, Inc. (the "Technical Consultant") to review the petition. Following such review, the Authority and the Technical Consultant executed a joint stipulation that set forth a revised five-year financial plan and rate plan, which the PUC later approved with additional modifications in February 2020 and September 2022 pending the completion of a comprehensive review and update of the Authority's five-year financial plan for Fiscal Years 2020-2024 and certain analytical studies. Under such PUC

orders, among other things, the PUC authorized the Authority to implement the following: (i) a 5.0% increase in water and wastewater non-lifeline rates for part of Fiscal Year 2020; (ii) a 5.0% increase in water and wastewater non-lifeline rates for Fiscal Year 2021; (iii) a 5.5% increase in water and wastewater non-lifeline rates for Fiscal Year 2023; and (iv) following the true-up proceeding for Fiscal Year 2024, a 16.7% increase in water and wastewater rates for Fiscal Year 2024 (including lifeline components). There was no rate increase for Fiscal Year 2022. Final rate adjustments for Fiscal Years 2020-2024 are set forth in Table 11. The 2020-2024 rate plan had a compounded rate increase for non-lifeline components of 35.7% for the five-year financial plan (from the beginning of Fiscal Year 2020 through Fiscal Year 2024). See APPENDIX A – "CONSULTANT'S FEASIBILITY STUDY – Financial Performance – Historical and Current Rates."

As further described below under "- 2025-2029 Rate Plan," the PUC approved and implemented an 11.5% increase in water and wastewater rates, including an increase to lifeline rates, for Fiscal Year 2025.

The following table sets forth the Authority's rate adjustments and their effective dates with respect to the 2014-2018 rate plan, the 2020-2024 rate plan, and the first Fiscal Year of the 2025-2029 rate plan. Except as noted below, the principal reason for the following rate adjustments was to enable sufficient net revenues to meet applicable debt service coverage policies and 2005 Indenture requirements.

Table 11
Summary of Certain Rate Adjustments

Rate Plan	Fiscal Year	Effective Date	Base and Non- Lifeline Rate Adjustment	Lifeline Rate Adjustment <sup>(1)</sup>
2014-2018	Fiscal Year 2014	November 1, 2013	15.0%	
	Fiscal Year 2015	December 1, 2014	14.5	
	Fiscal Year 2016	October 1, 2015	16.5	
	Fiscal Year 2017	October 1, 2016	$3.5^{(2)}$	3.5%
	Fiscal Year 2018	October 1, 2017	4.0	
2020-2024	Fiscal Year 2020	March 1, 2020 <sup>(3)</sup>	5.0%	
	Fiscal Year 2021	October 1, 2020	$5.0^{(3)}$	
	Fiscal Year 2022		(4)	
	Fiscal Year 2023	October 1, 2022	5.5	
	Fiscal Year 2024	October 1, 2023	$16.7^{(5)}$	16.7
2025-2029	Fiscal Year 2025	October 1, 2024	11.5%	11.5

<sup>(1)</sup> Adjustments to the lifeline rate are only allowed when the Authority's cost of service increases by at least 20% following the year of the most recent adjustment to the lifeline rate. See "- Current Water Rates."

Source: Guam Waterworks Authority; see also APPENDIX A – "Consultant's Feasibility Study – Introduction – Overview of Developments Since 2020 – FY 2020 - 24 Rate Adjudication: Comprehensive Review and Update Process."

2025-2029 Rate Plan. In March 2024, the CCU approved the Authority's five-year financial plan and rate application that proposed base, lifeline and non-lifeline water and wastewater rate increases for Fiscal Years 2025-2029. The Authority subsequently petitioned the PUC for consideration of the financial plan and rate application, and the PUC again engaged the Technical Consultant to review the petition. Following such review, the Authority and the Technical Consultant executed a joint stipulation that set forth a revised five-year financial plan and rate plan, which the PUC approved (as approved by the PUC, the "2025-2029 Financial Plan") and incorporated into its order on September 24, 2024 (the "2024 PUC Order").

<sup>(2)</sup> The PUC originally approved a 7.0% rate adjustment. During the true-up proceeding for Fiscal Year 2017, the Authority proposed a reduced rate adjustment of 3.5%, which the PUC approved.

<sup>(3)</sup> Represents partial year implementation of rate increase for Fiscal Year 2020.

<sup>(4)</sup> Given the timing of the PÚC's decision in September 2022, no rate adjustment was ordered for Fiscal Year 2022.

<sup>(5)</sup> The PUC originally approved a 5.5% rate adjustment. During the true-up proceeding for Fiscal Year 2024, the Authority proposed a rate adjustment of 27.0%; however, the PUC approved a reduced rate adjustment of 16.7%.

Under the 2024 PUC Order, among other things, the PUC authorized the Authority to implement the following: (i) an 11.5% increase in water and wastewater rates, including an increase to lifeline rates, for Fiscal Year 2025; (ii) a 10.75% increase in water and wastewater rates for Fiscal Year 2026; and (iii) a 7.75% increase in water and wastewater rates for each of Fiscal Years 2027, 2028 and 2029. No lifeline rates were authorized to be increased for Fiscal Years 2026-2029. The proposed rate increases resulted in the following forecasted rate revenues (inclusive of bad debt and post-billing adjustments) throughout the forecast period, beginning with Fiscal Year 2025 and ending with Fiscal Year 2029: \$137.9 million, \$151.3 million, \$162.7 million, \$175.5 million, and \$189.5 million. Authorized rate increases for Fiscal Years 2026-2029 are subject to change and are not final until approved by the PUC in the annual true-up proceedings. Such authorized rate increases were driven by, among other things, the 2024 Partial Consent Decree (see "REGULATORY ENVIRONMENT – Environmental Regulations – 2024 Partial Consent Decree"), rising Navy water purchase costs (see "THE SYSTEM – The Water System – Water Supply"), regulatory compliance for PFAS and emerging contaminants (see "REGULATORY ENVIRONMENT – Environmental Regulations – Compliance with the SDWA – Water System"), and the Authority's high level of non-revenue water (see "THE SYSTEM – Water Loss Control Program").

Modified Rate Design. As part of the 2020-2024 rate case, the Authority proposed the Modified Rate Design but the Technical Consultant did not offer an opinion nor did the PUC act upon the recommendation, deferring the decision to a later date. In April 2023, the Authority submitted a petition to the PUC to review the rate design structure which (i) adds a third tier to the residential customer water volumetric rates for all water consumption beyond 10,000 gallons, (ii) reduces the first tier (lifeline rate) volume threshold from 5,000 gallons to 3,000 gallons thus creating a second tier from 3,000 to 10,000 gallons, (iii) adds meter-size scaled sewer base charges for residential and non-residential customers; (iv) eliminates the flat monthly sewer rate for residential customers, (v) establishes volumetric sewer rates for residential customers based on 80% of water consumption, and (vi) applies the legislative surcharge to all rate components (i.e., including the lifeline rate). These rate design changes are intended to provide more consistent pricing of services and facilitate future movement to cost-of-service pricing, especially between the water and sewer systems. In March 2024, under GWA Docket No. 19-08, the PUC approved – in principle only – the new rate design structure (as approved by the PUC, the "Modified Rate Design"). The Authority has implemented the Modified Rate Design into the Fiscal Year 2026 True-Up (as defined and further described below), which was submitted to the PUC on April 25, 2025. The proposed Fiscal Year 2026 nominal rates within the submittal are consistent with the Modified Rate Design and generate rate revenue levels for Fiscal Year 2026 that are within 0.3% of those included in the five-year rate plan for the same fiscal year. As part of the Fiscal Year 2026 true-up proceedings, the PUC will evaluate the proposed nominal rates and revenue recovery levels and may make changes to the rate design, the nominal rates within the rate design, or the proposed revenue recovery levels for Fiscal Year 2026. The Authority anticipates that the PUC will take action with respect to the Fiscal Year 2026 True-Up, including the implementation of the Modified Rate Design, by September 2025; however, no assurance can be given that the PUC will approve the Fiscal Year 2026 True-Up in the form requested by the Authority.

Fiscal Year 2026 True-Up. As described above, although the PUC authorized the Authority to implement certain increases in water and wastewater rates for Fiscal Years 2026-2029 under the 2024 PUC Order, such authorized rate increases are subject to change and are not final until approved by the PUC in the annual true-up proceeding. The Authority's Fiscal Year 2026 True-Up (the "Fiscal Year 2026 True-Up") was approved by the CCU on April 22, 2025, and submitted to the PUC on April 25, 2025. Proposed rates for Fiscal Year 2026 set forth in the Fiscal Year 2026 True-Up are based on the Modified Rate Design described above under "- Modified Rate Design" and set at levels that are anticipated to generate the revenue projections set forth in the 2025-2029 Financial Plan. Rather than proposing a uniform percentage increase across all tariffs (as has been done for past true-up proceedings), the Authority is proposing rate adjustments that vary by customer meter size and billable volumes. Schedules showing the proposed water and wastewater rates and charges and related bill impacts under the Modified Rate Design are set forth in APPENDIX A - "CONSULTANT'S FEASIBILITY STUDY - Appendix I - Proposed FY 2026 Rates" and "- Appendix II - FY 2026 Bill Impact Schedule." These proposed rates are needed to meet increased operating costs and capital financing expenses and achieve target debt service coverage levels. The Authority anticipates that the PUC will take action with respect to the Fiscal Year 2026 True-Up by September 2025; however, no assurance can be given that the PUC will approve the Fiscal Year 2026 True-Up in the form requested by the Authority. In the event that the PUC approves rates for Fiscal Year 2026 (or subsequent annual true-up years) that are projected to achieve revenue recovery levels lower than that delineated in the 2025-2029 Financial Plan, the

Authority will adjust O&M expenses and planned capital financing to ensure compliance with targeted debt service coverage and liquidity metrics.

## **Billing, Collections and Enforcements**

The following table shows a comparison of the Authority's combined water and wastewater bill for select residential and commercial usage levels to combined water and wastewater bills charged by other water and wastewater utilities based on available data from May 2025. As shown in the following table, while the Authority's residential rates are in line with similar utilities, its non-residential rates are relatively high compared to other services providers.

In Fiscal Year 2024, based on the Authority's current rate structure, approximately 55% of residential customers used 5,000 gallons or less each month and qualified for the lifeline rate for monthly usage of up to 5,000 gallons. See "— Rates and Charges — *Water Rates*."

Table 12
Typical Monthly Water and Wastewater Bills<sup>(1)</sup>

Utility	Residential 5,000 gal/mo.	Residential 7,500 gal/mo.	Commercial 35,000 gal/mo.	Large Commercial 1,2000,000 gal/mo.
Guam Waterworks Authority(2)	\$90.72	\$132.80	\$1,095.82	\$52,260.75
City and County of Honolulu (3)	139.13	165.75	448.98	12,301.67
Northern Mariana Islands <sup>(4)</sup>	59.39	83.54	409.27	15,921.55
County of Hawaii (5)	100.67	114.05	531.99	18,327.78
County of Kauai (6)	120.65	132.78	353.49	22,532.69
County of Maui (7)	116.97	140.05	596.12	23,649.82

Based on available data from May 2025. The Authority's data is based on Fiscal Year 2025 rates.

Source: Compiled by Galardi Rothstein Group; see APPENDIX A – "Consultant's Feasibility Study - Table 7-4. Combined Water and Wastewater Bill Comparison" with modified footnotes.

As described above under "– Fiscal Year 2026 True-Up," proposed rate adjustments pursuant to the Fiscal Yer 2026 True Up will vary by customer meter size and billable volumes. For a comparison of the bill impact under the Modified Rate Design between Fiscal Year 2025 and 2026, see APPENDIX A – "CONSULTANT'S FEASIBILITY STUDY – Appendix I – Proposed FY 2026 Rates" and "– Appendix II – FY 2026 Bill Impact Schedule."

Customers have several options for paying their bills, including but not limited to in-person at the Authority's physical customer service centers, by mail and via a payment dropbox, and through the Authority's telephone payment system (implemented in 2010) or online payment system (implemented in 2010 and recently modernized in 2020), including via a mobile application. These different payment methods have contributed to the Authority maintaining a high collection ratio since 2010. The Authority has also implemented a late payment collection program. Under the program, all bills are due 15 days after the billing date and the Authority may discontinue service for non-payment upon providing advance written notice at least 10 days prior to the termination date. Furthermore, the program requires the Authority to make all reasonable efforts to collect all past due bills, including employing a collection agency. As set forth in the following table, the Authority's collection ratio ranged from 93% to 98% for Fiscal Years 2020-2024. See also APPENDIX C – "FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2024," Notes 2 and 4.

<sup>(2)</sup> Includes a 3.5% legislative surcharge on all non-lifeline rate components; billable flows equal to 80% of metered water use; Commercial-1 rate used for 1-inch bill calculation; Hotels rate used for 4-inch bill calculation.

<sup>(3)</sup> Wastewater bill reflects irrigation credit provided to residential and commercial customers equal to 20% of metered water use.

<sup>(4)</sup> Islands are served by the Commonwealth Utilities Corporation; water bill includes \$3.72 electric surcharge per kgal; wastewater bill includes \$1.92 electric surcharge per kgal.

<sup>(5)</sup> Residential customers are served by 5/8 inch meters; water bill includes a power cost charge of \$2.32 per kgal and an energy capital improvement program charge of \$0.50 per kgal.

<sup>(6)</sup> Group 1 Commercial rate used for 1-inch bill calculation; Hotel with Restaurant rate used for 4-inch bill calculation.

<sup>(7)</sup> Other General or Commercial rates used for 1-inch bill calculation; Hotel rate used for 4-inch bill calculation.

# Table 13 Collection Data<sup>(1)</sup> Fiscal Years 2020 through 2024

	2020	2021	2022	2023	2024(2)
Cash Received from Customers (Amount Collected)	\$103,358,111	\$98,274,136	\$99,541,497	\$103,874,586	\$121,133,259
Total Revenues (Amount Billed)	\$105,295,043	\$101,663,817	\$103,170,498	\$108,180,776	\$130,085,979
Collection Ratio	98%	97%	96%	96%	93%

<sup>(1)</sup> Includes System Development Charges. See Table 10 – "Water and Sewer System Development Charges" and "– System Development Charges."

As of March 31, 2025, accounts receivable, including inactive accounts, were approximately \$28.2 million, of which approximately \$9.1 million, or about 32%, are over 120 days. Approximately 44% of accounts receivable are from the residential customer class.

## **Uniform Disconnection Policy**

In 2003, the CCU mandated that a disconnection practice be established on a regular and ongoing basis and that all customers, including Government accounts, be subject to the same disconnection policy. The Authority's disconnection target is to schedule disconnection when a customer becomes 30 days delinquent and to ensure all such customers are disconnected before they become 45 days delinquent. Customers with verifiable health- and/or age-related issues may qualify for an exception to this disconnection mandate. Customers with ongoing bill disputes or payment plans are excluded from the automated disconnection process.

### **Debt Service Coverage**

**Rate Covenant**. The Authority has covenanted in the 2005 Indenture to at all times fix, prescribe and collect rates, fees and charges in connection with the services furnished by the System which will be sufficient to yield the sum of Net Revenues during each Fiscal Year equal to at least 1.25x the Aggregate Annual Debt Service for such Fiscal Year (the "**Debt Service Coverage Ratio**"). See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Rate Covenant" and "HISTORICAL AND PROJECTED OPERATING RESULTS."

*CCU and PUC Debt Service Coverage Ratio Targets*. The CCU established its current target debt service coverage ratio ("**DSCR**") in March 2024, providing for a gradual increase in the target DSCR from 1.3x in Fiscal Year 2024 to 1.5x by Fiscal Year 2029, with the DSCR calculated in a manner consistent with the 2005 Indenture.

In September 2022, as part of the 2022 PUC Order, the PUC ordered a temporary minimum target DSCR of 1.30x for Fiscal Years 2022-2024. Such temporary minimum target DSCR also applies to Fiscal Years 2025 and 2026. In addition, pursuant to the 2024 PUC Order issued in September 2024, the PUC established a target DSCR of 1.5x for Fiscal Years 2027, 2028 and 2029.

These targets may be further modified from time to time by the CCU and the PUC, as applicable. The modification or termination of such targets, or any failure of the Authority to achieve such targets, do not affect the requirements of the 2005 Indenture in respect of the issuance of additional Bonds such as the 2025A Bonds or otherwise, nor does any such failure constitute an Event of Default under the 2005 Indenture.

<sup>(2)</sup> Lower collection ratio in Fiscal Year 2024 due in part to increases in water and wastewater rates (see "- Rates and Charges - Historical Rate Adjustments") and the end of certain COVID-19 relief programs established to assist customers with utility and other payments.
Source: Guam Waterworks Authority.

### **Rate Stabilization Fund**

The 2005 Indenture establishes the Rate Stabilization Fund. The Rate Stabilization Fund is funded by transfers from the Revenue Fund as directed by the Authority. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Allocation of Revenues." All amounts in the Rate Stabilization Fund shall be transferred by the Authority from time to time to the Revenue Fund in the amounts specified by a Certificate of the Authority which also certifies that such amount is consistent with the annual budget established by the Authority pursuant to the 2005 Indenture.

In 2024, the CCU established a target to rebuild the Rate Stabilization Fund with planned transfers in of \$10 million over a five-year period by Fiscal Year 2029. Additionally, the CCU authorized the transfer of any excess funds from revenues from Fiscal Year 2025 into the Rate Stabilization Fund after achieving the debt service coverage target of 1.32x. The Authority must notify the CCU of the final amount of any planned transfers into or out of the Rate Stabilization Fund. This target may be further modified from time to time by the CCU.

In addition, pursuant to the 2024 PUC Order issued in September 2024, the PUC ordered \$1.25 million to be contributed from revenues to the Rate Stabilization Fund annually from Fiscal Years 2026-2029, beginning in Fiscal Year 2026.

As of March 31, 2025, the balance in the Rate Stabilization Fund was approximately \$950,000. As contemplated by the 2026 True-Up, the Authority plans to transfer \$9.5 million, \$5.0 million and \$6.0 million to the Rate Stabilization Fund in Fiscal Years 2025, 2027 and 2028, respectively.

## **2005 Indenture Required Reserves**

The Authority covenants under the 2005 Indenture to maintain two funds: (i) the Operation and Maintenance Fund, available for working capital purposes, and (ii) the Operation, Maintenance, Renewal and Replacement Reserve Fund, available for emergency renewals, replacements and other contingency items. The 2005 Indenture requires monthly deposits into the Operation and Maintenance Fund if necessary to increase the amount in such fund to the amount of Operation and Maintenance Expenses budgeted by the Authority, pursuant to such budget, to be paid from Revenues during the next succeeding calendar month (including any amount to be held as a reserve for transfer to the Rebate Fund) plus the amount of any Other Credit Agreement Payments Expenses then due and payable or to become due and payable during such month and not otherwise included in such amount. The required balance of \$14.0 million was on deposit in such fund as of March 31, 2025. The 2005 Indenture requires monthly deposits into the Operation, Maintenance, Renewal and Replacement Reserve Fund if necessary to increase the amount in such fund to one-fourth of the sum of amounts of Operation and Maintenance Expenses and Renewal and Replacement Costs budgeted by the Authority for the then-current Fiscal Year. The Authority assumes such requirement to equal 90 days of Operation and Maintenance Expenses. The required balance of \$23.3 million was on deposit in such fund as of March 31, 2025. For the last five years, the Authority has maintained these funds at the required levels.

### **Working Capital Reserve for Operations and Maintenance**

The 2005 Indenture establishes the Capital Improvement Fund and provides that the Authority may direct the creation of accounts within the Capital Improvement Fund for appropriate purposes, and may restrict the purposes for which amounts in any such account may be used or withdrawn. Pursuant to the CCU's current working capital reserve policy (most recently revised in 2020) (the "Working Capital Reserve Policy"), the Authority established a Working Capital Reserve for Operations and Maintenance account within the Capital Improvement Fund to provide additional liquidity to assist the Authority in addressing unforeseen obligations and unexpected, short-term cash flow demands. Amounts on deposit in the Working Capital Reserve for Operations and Maintenance account are available to pay Operation and Maintenance Expenses if the Authority's then-current cash flow is insufficient to pay such expenses. The Chief Financial Officer is authorized to withdraw up to \$500,000, subject to the prior approval of the General Manager; prior CCU approval is required for any withdrawal greater than \$500,000. Pursuant to the policy, the amount required to be on deposit in the Working Capital Reserve for Operations and Maintenance account is equal to 120 days of the Operation and Maintenance Expenses for the thencurrent Fiscal Year, less depreciation expense. The Working Capital Reserve for Operations and Maintenance

account requirement is subject to annual review and adjustment during the regular budgeting and rate-setting process. The required balance of \$15.5 million was on deposit in such fund as of March 31, 2025.

The Working Capital Reserve Policy may be further modified from time to time by the CCU. The modification or termination of such policy, or any failure of the Authority to achieve the target set forth under such policy, does not affect the requirements of the 2005 Indenture in respect of the issuance of additional Bonds such as the 2025A Bonds or otherwise, nor does any such failure constitute an Event of Default under the 2005 Indenture.

### **Security Measures**

In 2004, the Authority completed a vulnerability assessment on all of its public water systems and developed its own emergency response plan (the "Authority Emergency Response Plan"), which has since been incorporated into the Government's emergency response plan (the "Guam Emergency Response Plan"). The Authority works closely with the Guam Homeland Security/Office of Civil Defense ("Guam Homeland Security") on emergency response planning coordination efforts and updates to the Guam Emergency Response Plan.

In accordance with the America's Water Infrastructure Act of 2018, the Authority completed an updated risk and resiliency assessment in 2020, which included risks to the Authority's system from malevolent acts and natural disasters, resilience of the Authority's water and wastewater infrastructure, monitoring and operation of the systems and the Authority's financial infrastructure. Subsequent to the 2020 assessment, the Authority certified to the USEPA that an updated risk and resiliency assessment was completed in March 2024 and that the findings from this assessment will be incorporated into the Authority's Updated Emergency Response Plan that has a USEPA completion certification deadline of September 30, 2025. A full and finalized update to the Authority Emergency Response Plan will be included in the Guam Emergency Response Plan once completed.

# **Labor and Employee Relations**

As of May 2025, the Authority had 372 full-time equivalent employees. Most of the Authority's employees are classified as employees of the Government and within the Guam Civil Service System. Certain management positions and key skilled supervisory personnel hold unclassified positions.

Approximately 13% of the Authority's employees are members of the Guam Federation of Teachers ("GFT"), a collective bargaining organization that regularly recruits non-management employees of the Authority. GFT has negotiated a collective bargaining agreement with the Authority. Management is currently in negotiations with GFT on new contract terms, which are expected to be considered by the CCU later in 2025. The GFT does not have the ability under Guam law to negotiate for wage and benefit adjustments and may engage in a strike only under very limited circumstances. The Authority's management believes that relations with its employees are positive.

The Authority has experienced a significant increase in employee turnover in recent years, reaching 15.9% in Fiscal Year 2024, the highest rate in over a decade, driven in part by COVID-19 pandemic-era hiring freezes, competitive pressure from federal and local government opportunities, and relocations off-island for other opportunities. In response, the Authority commissioned a comprehensive market compensation study in March 2023, comparing 2022 U.S. water utility salaries with the Authority's 2017 pay scale. The study found that the Authority's salary structure had deteriorated from approximately the 20th percentile in 2017 to the 5th percentile by 2022. The study recommended periodic salary adjustments until the Authority reaches the 50th percentile of prevailing industry pay levels. Based on these findings, and recognizing the urgent need to improve recruitment and retention, the Authority proposed a Strategic Pay Plan. In May 2024, the CCU ratified the 2022 market study update and authorized structural adjustments to the salary scale for all Certified, Technical, and Professional positions. The approved Strategic Pay Plan provides for a multi-year, phased salary migration, starting with the 25th percentile in Fiscal Year 2024 to the 50th percentile in Fiscal Year 2028. The Authority's currently approved five-year rate plan includes dedicated funding to support this progressive salary migration. This investment in human capital is anticipated to significantly reduce attrition, improve service delivery, and support long-term operational continuity. The projected employee turnover rate for Fiscal Year 2025 has dropped to 8.6%, reflecting early impacts of the Strategic Pay Plan's implementation. The Authority anticipates a corresponding gradual increase in full-time

equivalent staffing levels through Fiscal Year 2029, as improved compensation, expanded career development opportunities, and an emphasis on employee recognition begin to restore organizational capacity and morale.

## **Retirement Fund and Other Post-Employment Benefits**

General. The Government of Guam Retirement Fund (the "GGRF") provides retirement annuities and other payments to retired Government employees and their dependents, including Authority employees and their dependents. Employees hired on or before September 30, 1995, are members of the Government of Guam Employees Retirement System (the "DB Plan"). Employees hired after September 30, 1995, became members of the Defined Contribution Retirement System (the "DC Plan"). From April 1, 2017 to December 31, 2017 and from June 1, 2023 to December 31, 2023, eligible, active DC Plan members could elect to become members of the Defined Benefit 1.75 Retirement System (the "DB 1.75 Plan"). In addition, new employees hired on or after January 1, 2024 will become members of the DC Plan and eligible, active DC Plan members may elect to become a member of the DB 1.75 Plan. The DB Plan, DC Plan, and DB 1.75 Plan are further described below.

**DB Plan**. The DB Plan is a single-employer defined benefit pension plan administered by the GGRF to which the Authority contributes based upon a fixed percentage of the payroll for those employees of the DB Plan. A single actuarial valuation is performed annually covering all DB Plan members, and the same contribution rate applies to each employer, including the Authority. Members of the DB Plan are required to contribute a certain percentage of their annual covered salary, which is currently 9.5%. The DB Plan member and employer contribution requirements are established by statute. According to the Government of Guam Retirement Fund Actuarial Valuation as of September 30, 2023 (the "2023 GGRF Valuation Report"), the most recent valuation report as of the date of this Official Statement, there were a total of 933 active members (including 12 Authority employees), 7,201 retired members and 3,045 inactive members under the DB Plan as of September 30, 2023.

**DC Plan.** The DC Plan is a single-employer defined contribution pension plan administered by the GGRF. Contributions to the DC Plan by members are based on an automatic deduction of 6.2% of the member's regular base pay starting on January 1, 2018. Contributions are deposited into each individual employees' 401(a) account with the DC Plan. The default plan for all new Government employees, including Authority employees, is the DC Plan. According to the 2023 GGRF Valuation Report, there were a total of 7,697 active members (including 250 Authority employees) under the DC Plan as of September 30, 2023.

*DB 1.75 Plan*. The DB 1.75 Plan is a governmental defined benefit pension plan administered by the GGRF with an effective date of January 1, 2018. The DB 1.75 Plan members are required to contribute 9.5% of their base salary to the DB 1.75 Plan and 1% of their base salary to a Government deferred compensation plan. As described above under "– *General*," certain existing employees and members of the DC Plan were provided an opportunity to participate in the DB 1.75 Plan in 2017. According to the 2023 GGRF Valuation Report, there were a total of 2,640 active members (including 95 Authority employees), 292 retired members and 16 inactive members under the DB 1.75 Plan as of September 30, 2023.

As further described above under "- General," certain existing employees and members of the DC Plan currently have, and certain new employees and members of the DC Plan will have, an opportunity to participate in the DB 1.75 Plan.

**DB Plan and DB 1.75 Plan Annual Valuation Results.** The DB Plan's unfunded actuarial accrued liability ("UAAL") and funded ratio for Fiscal Years 2019-2023 are shown in the following table. The UAAL and funded ratio includes the DB 1.75 Plan.

Table 14
Unfunded Actuarial Accrued Liability and Funded Ratio of Defined Benefit Plans<sup>(1)</sup>
Fiscal Years 2019 through 2023
(in millions)

Fiscal Year	Accrued Liability	Actuarial Assets	Unfunded Actuarial Accrued Liability	Funded Ratio
2019	\$3,221.3	\$2,066.0	\$1,155.4	64.13%
2020	3,228.1	2,053.9	1,174.2	63.62
2021	3,267.5	2,125.3	1,142.2	65.04
2022	3,236.6	2,063.6	1,173.0	63.76
2023	3,232.6	2,019.3	1,213.3	62.47

Obes not include Cost-of-Living Allowance and Supplemental Annuity Liability.

Source: Government of Guam Retirement Fund Actuarial Valuation as of September 30, 2023.

Significant actuarial assumptions and methods used in the 2023 GGRF Valuation included: (a) the interest rate used to discount future benefit payments to the present and long term expected rate of return on plan assets of 7.0%; (b) the Entry Age Normal method; (c) total payroll growth of 2.50% per year; (d) 3-year phase-in of gains/losses relative to interest rate assumption; (e) amortization of UAAL to an end date of May 1, 2033. According to the 2023 GGRF Valuation Report, and based on the GGRF 2023 Audited Financial Statements, the GGRF actuary calculated an investment return on the total market value of assets of 11.6% for the fiscal year ending September 30, 2023. The average annual return on the market value of assets has been 3.2% for the last five fiscal years. The investment return on the actuarial value of assets (recognizing investment gains and losses over a 3-year period) was 2.2% for the Fiscal Year ended September 30, 2023.

The GGRF is subject to GASB Statement No. 67; each participating employer, including the Authority, is subject to GASB Statement No. 68 ("GASB 68"). GASB 68 was incorporated into the Authority's financial statements beginning in Fiscal Year 2015. For the Authority's proportionate share of the GGRF's net pension liability and pension expense for the Fiscal Year 2022, see APPENDIX C – "FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2024," Note 8.

Contribution Rates. Under Title 4, Chapter 8, Section 8137 of the Guam Code Annotated, as amended, the Government is required to completely fund the unfunded actuarial accrued liability by May 1, 2033. The actuarial employer contributions rates set forth in the annual valuations apply to the Fiscal Year beginning one year after the valuation date. Components of the actuarial employer contribution rates include percentages towards (1) the UAAL of the DB Plan and DB 1.75 Plan, (2) normal cost of the DB Plan and DB 1.75 Plan, and (3) contributions and expenses for the DC Plan.

Although the actuarial contributions rates are provided to the Guam Legislature by the GGRF in advance of each Fiscal Year and used for budget preparation, the Guam Legislature is not required to adopt such rates but has done so in recent years. The Government applies the same employer statutory contribution rate to all employees (i.e., DB Plan members, DC Plan members, etc.). Of the amounts contributed by the employers under the DC Plan, an amount equal to 6.2% of the DC Plan member's regular base pay starting on January 1, 2018, is deposited into the member's individual annuity account; the remaining amount in excess of 6.2% starting on January 1, 2018, of the DC Plan member's regular base pay is contributed towards the UAAL of the DB Plan. The following table sets forth the actuarial employer contribution rates and the statutory employer contribution rates for Fiscal Years 2019-2023:

Table 15
Employer Contribution Rates – Actuarial and Statutory<sup>(1)</sup>
Fiscal Years 2019 through 2023

Fiscal Year	<b>Actuarial Rate</b>	Statutory Rate
2019	26.97%	26.56%
2020	28.32	26.28
2021	28.43	26.97
2022	29.43	28.32
2023	30.77	28.43

The actuarial employer contributions rates set forth in the annual valuations apply to the Fiscal Year beginning one year after the valuation date. For example, the actuarial contribution rate determined in the valuation report as of September 30, 2020 (Fiscal Year 2020) is applied for the Fiscal Year beginning October 1, 2021 (Fiscal Year 2022).

Source: Government of Guam Retirement Fund Actuarial Valuation as of September 30, 2023.

In addition, the statutory rates for Fiscal Years 2024 and 2025 are 29.43% and 30.77%, respectively.

The following table sets forth the actual contributions made by the Authority to the DB Plan during Fiscal Years 2020 through 2024. Such amounts were equal to the required contributions for those years.

Table 16 Authority's Contributions to DB Plan Fiscal Years 2020 through 2024

Fiscal Year	Amount
2020	\$2,113,893
2021	2,001,837
2022	1,935,310
2023	1,913,025
2024	2,415,812

Source: Guam Waterworks Authority.

The following table sets forth the actual contributions made by the Authority to the DC Plan, as well as the portion of such contributions that are applied to the unfunded liability of the DB Plan during Fiscal Years 2019 through 2023. Such amounts were equal to the required contributions for those years.

Table 17
Authority's Contributions to DC Plan and DB Plan toward Unfunded Liability
Fiscal Years 2020 through 2024

Fiscal Year	DC Plan Amount	Portion of DC Plan Amount to DB Plan
2020	\$2,837,095	\$2,178,351
2021	2,950,859	2,282,397
2022	3,245,167	2,536,730
2023	3,282,537	2,576,894
2024	3,042,567	2,413,493

Source: Guam Waterworks Authority.

**COLA and Supplemental Annuity Payments.** Public Law 25-72, passed in 1999, requires the payment of supplemental annuity and cost-of-living-allowance ("COLA") benefits to retirees and specifies that these payments are to be vested, limited-duration benefits to be provided by the GGRF. Public Law 36-107 increased ad hoc COLA payments of \$2,000 per year to \$2,200 per year to retired DB Plan and DC Plan members and spouse survivors.

Public Law 37-42 authorized and additional \$100 per retiree resulting in COLA payments of \$2,300 starting October 1, 2023. In addition, supplemental annuity payments of \$4,238 (subject to an aggregate limitation of \$40,000 per year when combined with the member's regular retirement annuity) have been provided to retired DB Plan members and survivors whose benefits commenced prior to October 1, 1995. These payments have been made outside of the GGRF trusts through annual allocations, and are anticipated to continue in future years. Effective Fiscal Year 2017 and pursuant to GASB Statement No. 73, the resultant actuarial liability relating to these payments have been included in the government-wide financial statements.

Other Post-Employment Benefits. The Government makes annual expenditures for certain postretirement healthcare benefits ("OPEB") to retirees who are members of the GGRF. The Government provides medical, dental, and life insurance coverage. Prior to Fiscal Year 2020, the retiree medical and dental plans were fully-insured products provided through insurance companies. Starting in Fiscal Year 2020, the Government began to phase in policy self-insurance: dental in Fiscal Year 2020, pharmaceuticals in Fiscal Year 2022 and medical in Fiscal Year 2024. Benefits under the dental plan are capped at \$1,000 per subscriber. The Government shares in the cost of these plans, with its contribution amount set each year at renewal. Current statutes prohibit active and retired employees from contributing different amounts for the same coverage. As such, the Government contributes substantially more to the cost of retiree healthcare than to active healthcare. For the life insurance plan, the Government provides retirees with \$10,000 of life insurance coverage through an insurance company. Retirees do not contribute to the cost of this coverage. The OPEB unfunded actuarial accrued liability for the Government, including fiduciary funds and component units such as the Authority, was approximately \$2.73 billion for Fiscal Year 2024, \$2.30 billion for Fiscal Year 2023, \$2.77 billion for Fiscal Year 2022, \$2.52 billion for Fiscal Year 2021, and \$2.55 billion for Fiscal Year 2020. The OPEB unfunded actuarial accrued liability allocated to the Authority was approximately \$103.2 million for Fiscal Year 2024, \$87.2 million for Fiscal Year 2023, \$116.3 million for Fiscal Year 2022, \$106.4 million for Fiscal Year 2021, and \$84.2 million for Fiscal Year 2020.

The OPEB plan is financed on a substantially "pay-as-you-go" basis whereby contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due. The Authority is then required to reimburse the General Fund for the OPEB costs of the Authority's retirees. The Authority applies revenues generated by the Legislative Surcharge to pay these costs. See "REGULATORY ENVIRONMENT – Regulation of Ratemaking."

The following table sets forth the Government's contributions from the General Fund for OPEB for Fiscal Years 2019-2023, as well as the Authority's contributions to reimburse the Government for the OPEB costs of the Authority's retirees (*i.e.*, medical, dental and life insurance).

Table 18 Government Contributions from General Fund for OPEB and Authority's Contribution to Reimburse OPEB Fiscal Years 2019 through 2023

Fiscal Year	Government Contributions	Authority's Contribution to Reimburse OPEB
2019	\$30,569,444	\$1,795,850
2020	27,920,521	1,745,004
2021	32,565,557	1,598,791
2022	39,685,005	1,966,259
2023	N/A <sup>(1)</sup>	

The Government contribution amount for Fiscal Year 2023 is not yet available.

Sources: Extracted from Government of Guam Financial Statements for Fiscal Year 2023 and Guam Waterworks Authority Financial Statements for Fiscal Year 2024.

See APPENDIX C – "FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2024," Schedule 6.

### Liquidity

As of March 31, 2025, the Authority had approximately 358 days of cash on hand, or \$83.2 million, which includes funds in the Operation, Maintenance, Renewal and Replacement Reserve Fund, Operation and Maintenance Fund, and Working Capital Reserve for Operations and Maintenance account, all as described under "– 2005 Indenture Required Reserves" and "– Working Capital Reserve for Operations and Maintenance," as well as unrestricted funds on hand in the amount of \$11.8 million.

### REGULATORY ENVIRONMENT

#### **Environmental Regulations**

General. The Authority is subject to federal and Guam regulations governing water supply and wastewater treatment. The drinking water standards promulgated in the SDWA are the primary requirements for water supply. Wastewater treatment and disposal must comply with the water quality standards in the CWA. Guam EPA is the local agency responsible for monitoring Authority operations for compliance. Generally, Guam EPA regulations are the same as the federal standards, although the agency can implement more stringent requirements if Guam EPA determines it is necessary. Guam EPA and the US EPA jointly enforce environmental regulations on Guam, except that Guam EPA has primacy for establishing and enforcing water quality standards under the SDWA, while the US EPA has retained NPDES permit authority under the CWA.

The Authority had difficulty complying with SDWA and CWA regulations prior to 2010. In 2002, the US EPA filed a complaint against the Authority in the Guam District Court seeking to appoint a receiver to address the Authority's inability to comply with the CWA and the SDWA. In part in response to concerns over continued noncompliance by the Authority, the Guam Legislature created the CCU as the governing body of both the Authority and GPA, thereby removing the Authority, as well as GPA, from the direct control of the Government of Guam.

2003 Stipulated Order and 2011 Court Order. In 2002, members of the CCU met with the U.S. Attorney General and representatives from the US EPA to discuss the CCU's role in the rehabilitation of the Authority. The US EPA and the Authority agreed to enter into the 2003 Stipulated Order, pursuant to which the Authority was given the opportunity to comply with federal water and wastewater regulations under the governance of the CCU. The 2003 Stipulated Order required the Authority to make certain improvements to the System and to undertake certain planning measures by specific dates. The Authority began implementing the specified projects, including, among other things, the completion of the 2006 WRMP to serve as the basis for the Authority's long-term planning. The 2006 WRMP set forth an assessment of the Authority's System and outlined improvements over a 20-year period necessary for regulatory compliance and System growth. The CCU and the US EPA approved the 2006 WRMP. However, the Authority did not meet all of the deadlines in the 2003 Stipulated Order, and the US EPA required it to pay fines in the aggregate amount of \$413,750 from 2004 through 2010.

In 2010, the US EPA requested that the Guam District Court order the Authority to address the thenremaining items in the 2003 Stipulated Order, as well as certain additional actions or improvements, some of which were identified by the Authority in the 2006 WRMP. In 2011, the Guam District Court issued the 2011 Court Order, which established deadlines for such projects and superseded the 2003 Stipulated Order and all prior orders. The 2011 Court Order contains 86 projects, two notice requirements and five ongoing reporting requirements relating to management, operations, financial administration, facilities construction and rehabilitation and training requirements to be implemented in accordance with strict schedules. The Authority has prioritized and complied with the timelines set forth in the 2011 Court Order, and the US EPA has not fined the Authority for any missed compliance dates since the issuance of the 2011 Court Order. The Authority has completed 84 of the 86 projects under the 2011 Court Order and is in compliance with the two notice requirements and five ongoing reporting requirements under the 2011 Court Order.

The last remaining project under the 2011 Court Order is completion of the replacement, rehabilitation or reconstruction of 12 storage tanks in accordance with the hydraulic assessment approved by the US EPA and the Guam District Court in 2023. The completion deadline for this last project, which the Authority expects to meet, is December 31, 2025. For more information about the storage tanks and hydraulic analysis, see "THE SYSTEM – The Water System – *Water Distribution System* – Reservoirs."

2024 Partial Consent Decree. On January 31, 2024, the US EPA filed a complaint in the Guam District Court alleging that the Authority violated certain conditions and limitations of the NPDES permits that the US EPA issued to the Authority pursuant to the Clean Water Act. The Authority and the US EPA have entered into the 2024 Partial Consent Decree, which was signed into order by the Guam District Court on August 9, 2024. The 2024 Partial Consent Decree requires the Authority to make certain improvements to the System (with the goal of reducing sanitary sewer overflows) and to undertake certain planning measures by specific dates in the next 10 years. As further described below, such improvements primarily relate to the wastewater collection system, including pipelines, pump stations, maintenance and other operational program improvements, as well as planning studies for secondary wastewater treatment at the Hagåtña WWTP.

The compliance requirements contained in the 2024 Partial Consent Decree are centered on the Authority's wastewater collection system and include assessment and capacity analyses to determine acceptable future upgrades to gravity collection lines in specific areas, as well as setting specific annual rehabilitation/replacement requirements for the entire sewer collection network. Similarly, inventory, assessment and analyses are required for sewer pump station force main (discharge) piping in order to begin rehabilitation/replacement of a certain percentage of the Authority's total force main piping inventory. The 2024 Partial Consent Decree also specifies criteria for upgrading the Authority's sewer pump stations, based on a tiered schedule of pump station priorities based on the Authority's 2018 WRMP Update, and design and construction of a certain number of such pump station upgrades over the compliance period. In addition to the improvement projects, the 2024 Partial Consent Decree includes maintenance and operational program requirements, such as formalization of sewer spill response plans, sewer line cleaning and inspection (existing), and asset management plan (existing), as well as formal adoption of certain wastewater pretreatment programs. There is also a requirement for completion for a feasibility and planning study by January 2031 for the rehabilitation or replacement of the Hagåtña WWTP to an upgraded secondary treatment facility to comply with current NPDES permit requirements. Regular reporting requirements on the status of compliance requirements are also defined in the 2024 Partial Consent Decree.

Under the 2024 Partial Consent Decree, the Authority and the US EPA will also reengage in negotiations by 2031 to address other unresolved claims outside of the 10-year compliance period of the 2024 Partial Consent Decree, including but not limited to continued wastewater collection system improvements and upgrading the Hagåtña WWTP to secondary treatment. See also "– *Compliance with the CWA – Wastewater System.*"

Approximately \$356.4 million or 39.7% of the 2025-2029 CIP is allocated to projects to comply with the 2011 Court Order and the 2024 Partial Consent Decree. See "FUTURE SYSTEM CAPITAL REQUIREMENTS – Capital Improvement Program."

For more information about the 2024 Partial Consent Decree, see APPENDIX A – "Consultant's Feasibility Study – Wastewater System – Wastewater System Overview – 2024 GWA Wastewater Partial Consent Decree" and "– Regulatory and Legal Issues – Partial Consent Decree."

**Compliance with the SDWA – Water System**. Treatment of groundwater obtained by the Authority from wells and the Santa Rita Spring and drinking water from the Ugum WTP and the Fena WTP complies with SDWA requirements.

In April 2024, the US EPA adopted a final rule for the regulation of PFAS compounds under the SDWA. The rule requires that public water systems treat source water with concentrations of these substances above a maximum contaminant level ("MCL") to remove the contaminants prior to entry into the distribution system. On May 14, 2025, the US EPA announced that it will keep the current MCLs for PFOA and PFOS but plans to extend compliance deadlines for PFOA and PFOS from 2029 to 2031. The US EPA plans to issue a proposed rule this fall and to finalize the rule in spring 2026.

Two of the Authority's wells currently exceed the Guam EPA's local action limit. The Authority has shut down these wells and plans to install granular activated carbon ("GAC") treatment systems at these two wells, which are expected to be back on line by 2026.

The promulgation of the proposed regulations on PFAS compounds will require the Authority to design and construct new treatment systems that have not before been needed to comply with the SDWA. The Authority is in

the process of finalizing the procurement of the design services for these treatment systems and has plans to initiate construction of these treatment systems as part of its CIP.

The Guam EPA plans to establish local drinking water regulations for Dieldrin, a pesticide compound currently unregulated at the federal level. While the US EPA considers Dieldrin a probable human carcinogen, it has not established a maximum contaminant level. The Guam EPA is expected to propose a local action level of 0.2 micrograms per liter, which may render several of the Authority's wells unusable without treatment. In anticipation of these regulations, the Authority is planning to install GAC treatment systems (the US EPA's preferred treatment technology for this insecticide) at three wells most likely to be affected. Additional wells may also be impacted. The Authority is also preparing a central transmission system to transmit impacted well water to a centralized treatment system.

Approximately \$204.7 million or 22.8% of the 2025-2029 CIP is allocated to projects relating to PFAS and other emerging contaminants. See "FUTURE SYSTEM CAPITAL REQUIREMENTS – Capital Improvement Program."

Compliance with the CWA – Wastewater System. Four of the Authority's six wastewater treatment plants require an NPDES permit to discharge treated wastewater under the Clean Water Act – the Hagåtña WWTP, the Northern District WWTP, the Agat-Santa Rita WWTP and the Umatac-Merizo WWTP. Prior to 2020, an individual NPDES permit was issued for each of the four wastewater treatment plants; the Authority's current NPDES permit, effective January 1, 2020, applies to all four plants and supersedes any previously-issued NPDES permit. The Authority's NPDES permits expired on December 31, 2024. The Authority timely prepared and submitted the permit renewal application to the US EPA by June 1, 2024. The US EPA has issued an administrative extension of the permits until they can complete the renewal processing. The Northern District WWTP and the Agat-Santa Rita WWTP are in full compliance with the current NPDES permit.

The Umatac-Merizo WWTP is in compliance with all NPDES permit requirements except for seasonal variances for a single permit limit. The current NPDES permit includes effluent limitations for total phosphorus for discharge. The Authority does not expect the Umatac-Merizo WWTP to meet the permit limits for phosphorus at certain times of the year. The Authority is making operational adjustments to improve performance and expects to conduct studies of plant effluent constituents, phosphorous levels in the effluent at different times of the year and phosphorous removal rates if such adjustments do not improve results. Construction of phosphorus control improvements at the Umatac-Merizo WWTP is pending completion of such studies. "THE SYSTEM – The Wastewater System – Wastewater Treatment Plants – Umatac-Merizo WWTP."

The Hagåtña WWTP is not currently in compliance with the NPDES permit. Until June 2013, the Hagåtña WWTP operated under a secondary treatment variance issued by the US EPA under the CWA, which allowed the Authority to discharge effluent from the Hagåtña WWTP's chemically-enhanced primary treatment process into the Philippine Sea. A prior NPDES permit, effective June 1, 2013, added secondary treatment requirements, which are also required under the existing NPDES permit. However, the Hagåtña WWTP is unable to meet those secondary treatment requirements until certain upgrades are implemented at the plant. The US EPA provided modified effluent discharge limitations, with which the Hagåtña WWTP is complying. Further, under the 2024 Partial Consent Decree the Authority is required to submit a feasibility study for secondary treatments to the Hagåtña WWTP to the US EPA by January 2031 for review and approval. The feasibility study is required to include analyses of design options, alternative locations, climate change and sea level rise, and planning level construction cost estimates and construction timelines. See "– 2024 Partial Consent Decree" and "THE SYSTEM – The Wastewater System – Wastewater Treatment Plants – Hagåtña WWTP."

The Authority's remaining two wastewater treatment plants, the Inarajan WWTP and Pago-Socio WWTP, are not subject to an NPDES because they do not discharge to surface waters. These wastewater treatment plants are otherwise in compliance with applicable discharge requirements.

Other Environmental Regulations. In addition to the water and wastewater regulations discussed above, the Authority must also comply with other applicable environmental requirements, including, but not limited to, air emission standards for standby diesel generators, regulations related to above-ground and underground petroleum storage tanks, regulations under the Clean Air Act and various health and safety regulations regarding work

performed by the Authority's employees (including voluntary compliance with the Occupational Health and Safety Act).

## **Regulation of Ratemaking**

The Authority's ratemaking is regulated by the PUC. The Authority and the CCU establish water and wastewater rates and charges and present them to the PUC for regulatory review and approval. Guam law requires that the PUC set rates that are just and fair and are adequate to provide revenues sufficient to pay for all prudent acts of owning, properly maintaining and operating the System. Generally, PUC approval of a proposed rate plan includes an annual true-up analysis to evaluate the necessary level of rate adjustment based on actual financial performance; therefore, while the PUC may approve a rate plan, annual rate adjustments are typically subject to the results of the true-up analysis.

In connection with the 2020-2024 rate plan, the PUC made an exception to this process by requiring a comprehensive review and update of the Authority's five-year financial plan for Fiscal Years 2020-2024 and certain analytical studies. See "THE SYSTEM – Rates and Charges – *Historical Rate Adjustments*" and APPENDIX A – "CONSULTANT'S FEASIBILITY STUDY – Financial Performance – Historical and Current Rates."

Pursuant to the Act and the 2005 Indenture, the Authority has pledged to the holders of all Bonds while any Bonds remain outstanding and not fully performed or discharged, to, among other things, maintain the rights, powers and duties of the CCU and the PUC to fulfill the terms of the Bonds and the 2005 Indenture, and maintain the rights and remedies of bondholders provided in the Act and the 2005 Indenture.

(Remainder of Page Intentionally Left Blank)

### FUTURE SYSTEM CAPITAL REQUIREMENTS

## **Water Resources Master Plan Updates**

In 2006, the Authority completed the original Water Resources Master Plan (2004-2007) (the "2006 WRMP"), a planning document that set forth an assessment of the Authority's System and outlined capital improvements over a 20-year period. In 2018, the Authority completed an update to the 2006 WRMP (the "2018 WRMP Update"), which provided a comprehensive assessment of the Authority's progress toward achieving the recommendations set forth in the 2006 WRMP and further developed a capital improvement program and financial plan to achieve the Authority's goals and objectives to meet acceptable levels of service and system improvement for the next 20 years, through 2037. The long-term planning effort also addressed programmatic elements of the Authority's operations to sustain the utility and maintain compliance with drinking water standards and clean water regulations. In 2025, the Authority completed an update to the 2018 WRMP Update (the "Interim WRMP Update"), which the CCU adopted on May 27, 2025. The Interim WRMP Update provides a revised capital program for Fiscal Years 2024-2037 that consists of remaining projects from the 2018 WRMP Update and new projects that are the result of updated analyses of the water and wastewater systems, mandates required by the 2024 Partial Consent Decree, new contaminant levels for PFAS compounds, and new general utility improvements identified by the Authority. The Interim WRMP Update calls for approximately \$1.892 billion of capital spending over the 2018-2037 forecast period. The Interim WRMP Update provides the basis for most of the capital improvements included in the current capital improvement program, which is further described herein. See "-Capital Improvement Program."

See "REGULATORY ENVIRONMENT – Environmental Regulations – 2024 Partial Consent Decree" and "– Capital Improvement Program" and "THE SYSTEM – Rates and Charges – 2025-2029 Rate Plan."

# **Capital Improvement Program**

2025-2029 CIP: On March 4, 2024, the CCU approved the Authority's 2025-2029 Financial Plan, which incorporates the Authority's capital improvement program for Fiscal Years 2025-2029 (the "2025-2029 CIP"). The capital cost of implementing the 2025-2029 CIP, as shown in the following table, is \$898.7 million (in nominal dollars), and anticipated to be financed through a combination of proceeds of previously issued bonds, the 2025A Bonds and Additional Bonds expected to be issued in Fiscal Year 2028, various prior and future grants, including US EPA State Revolving Fund ("State Revolving Fund") grants, operating revenues, revenues from System Development Charges and certain reserves. The Authority can provide no assurance that the total cost of the 2025-2029 CIP will not be higher than currently estimated. See "CERTAIN INVESTMENT CONSIDERATIONS – Implementation of Capital Improvement Program."

The following table sets forth the allocation of 2025-2029 CIP project costs among four categories: (i) water production, treatment, distribution and storage, (ii) wastewater collection and treatment, (iii) electrical, including monitoring and control, and (iv) general plant and miscellaneous, as well as the projected sources of funding for such projects by Fiscal Year. Most notably, the 2025-2029 CIP includes certain capital program requirements mandated under the 2024 Partial Consent Decree, including wastewater collection system gravity line assessment, capacity analyses and certain rehabilitation/replacement for the portions of the sewer collection network; inventory, assessment and analyses are required for sewer pump station force main (discharge) piping and rehabilitation/replacement of a certain percentage of the Authority's total force main piping inventory; assessment, design and construction of Tier 1 and a certain number of Tier 2 pump station upgrades as such tiers have been identified in the Authority's 2018 WRMP Update. Furthermore, the 2025-2029 CIP includes planning and engineering to address new federal regulations for emerging contaminants such as PFAS and selected water tank projects.

Approximately \$356.4 million or 39.7% of the 2025-2029 CIP is allocated to projects to comply with the 2011 Court Order and the 2024 Partial Consent Decree (see "REGULATORY ENVIRONMENT – Environmental Regulations – 2003 Stipulated Order and 2011 Court Order" and "– 2024 Partial Consent Decree"); approximately \$204.7 million or 22.8% of the 2025-2029 CIP is allocated to projects relating to PFAS and other emerging contaminants (see "REGULATORY ENVIRONMENT – Environmental Regulations – Compliance with the SDWA

- *Water System*"); and approximately \$203.1 million or 22.6% of the 2025-2029 CIP is allocated to Water Loss Control Program projects (see "THE SYSTEM – Water Loss Control Program").

For more information regarding the Authority's 2025-2029 CIP, including project descriptions within the four categories and planned capital financing, see APPENDIX A – "Consultant's Feasibility Study – Capital Improvement Program" and "– Financial Performance – Capital Financing."

Table 19
CIP Encumbrance Requirements and Sources of Funds
Fiscal Years 2025 through 2029
(\$000)

	2025	2026	2027	2028	2029	Total
Capital Improvement Program						
Water Production, Treatment,	\$117,389	\$125,639	\$58,333	\$212,883	\$62,978	\$577,221
Distribution and Storage	\$117,309	\$123,039	\$30,333	\$212,003	\$02,976	\$377,221
Wastewater Collection and	31,941	62,804	38,818	8,824	34,414	176,801
Treatment	31,771	02,004	36,616	0,024	37,717	170,001
Electrical, including Monitoring	1,827	5,099	14,848	0	1,147	22,921
and Control	,	, i	,	•	,	ŕ
General Plant and Miscellaneous	14,488	29,106	44,683	27,796	5,736	121,808
Total*:	\$165,644	\$222,647	\$156,682	\$249,503	\$104,275	\$898,752
Sources of Funds						
Proceeds from Additional Debt	\$250,000	\$0	\$0	\$265,000	\$0	\$515,000
Short-Term Construction	75,000	0	75,000	0	0	150,000
Financing <sup>(1)</sup>	73,000	U	73,000	U	U	130,000
Future EPA Grants <sup>(2)</sup>	34,488	30,000	30,000	4,000	4,000	102,488
Internally Funded CIP (PAYGO) <sup>(3)</sup>	17,000	17,000	17,000	18,000	19,000	88,000
Interest Earnings	11,374	10,771	6,146	5,436	6,876	40,602
System Development Charge	750	750	750	750	750	3,750
Used (Unused) Reserves <sup>(4)</sup>	(222,968)	164,127	27,786	(43,683)	73,649	(1,089)
Total*:	\$165,644	\$222,647	\$156,682	\$249,503	\$104,275	\$898,752

<sup>(1)</sup> The Authority plans to use short-term construction financing (*i.e.*, commercial paper notes, a revolving loan or similar instruments) to encumber projects, issue loans for contractor payment. These short-term construction financing instruments, anticipated to be established with two-year terms, are planned to be refunded with the issuance of revenue bonds that will provide substitute funding and pay off the outstanding instrument debt balances when each two-year term expires. See "– Short-Term Construction Financing."

Source: Guam Waterworks Authority; compiled from APPENDIX A - "Consultant's Feasibility Study - Table 7.5" with modified footnotes.

As shown above, capital requirements are planned to be funded through revenue bonds (57.2%), short-term construction financing (16.7%), grants from the US EPA (11.4%), internally funded CIP (*i.e.*, net operating revenues transferred from the operating fund) (9.8%), revenues from System Development Charges (0.4%), and interest earnings on restricted accounts that may be used to fund projects (*i.e.*, debt service reserves or bond proceeds) (4.5%).

Short-Term Construction Financing. Pursuant to Public Law No. 37-103 ("PL 37-103"), the Authority is authorized to use certain short-term construction financing instruments to finance projects in its capital improvement program subject to certain requirements. The Authority may issue up to \$360 million in tax-exempt or taxable commercial paper notes, as well as up to \$400 million in aggregate principal amount of notes, bonds or other similar instruments (including but not limited to revolving notes) secured by bank credit facilities ("Credit Facility Obligations"). Under PL 37-103, the Authority is also authorized to issue long-term refunding bonds to refinance such commercial paper notes or Credit Facility Obligations, as well as long-term revenue bonds to finance and

<sup>(2)</sup> These grants are awarded annually to the Authority and consist of US EPA Drinking Water and Clean Water State Revolving Fund infrastructure grants as well as the Authority's allocation from the Infrastructure Investment and Jobs Act. See "- Grants."

<sup>(3)</sup> Net operating revenues from the System.

<sup>(4)</sup> Interest earnings on restricted accounts such as debt service reserves and revenue bond proceeds.

<sup>(5)</sup> At the end of Fiscal Year 2029, approximately \$1.1 million will remain (unrestricted balance) for capital projects beyond the forecast period.

Totals may not add due to rounding.

refinance certain projects in its capital improvement program. However, the total amount of indebtedness incurred pursuant to PL 37-103 may not exceed \$560 million.

The Authority plans to incur \$75 million of short-term indebtedness in 2025, to refund such debt in 2027 with long-term revenue bonds, to incur another \$75 million of short-term indebtedness in 2027, and to refund such debt in 2029 with long-term revenue bonds.

Commercial paper notes may be payable from revenues and secured only on a subordinate basis to the payment of debt service on Bonds. Credit Facility Obligations may be payable from revenues and secured on a parity basis with or on a subordinate basis to the payment of debt service on Bonds. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Parity Payment Agreements" and "Subordinate Obligations."

*Grants*. The Authority anticipates US EPA grants to total \$102.5 million over the five-year forecast period, including grants from the US EPA Drinking Water State Revolving Fund and Clean Water State Revolving Fund programs totaling \$4.0 million per year, as well as the Authority's allocation of the federal Infrastructure Investment and Jobs Act grant program, consisting of \$30.5 million in Fiscal Year 2025 and \$26 million in each of Fiscal Year 2026 and 2027.

#### U.S. Military Realignment

Guam is currently the home of three military bases: Naval Base Guam on the mid-western coast of Guam, Andersen Air Force Base on the northeastern coast of Guam from Yigo to Ritidian Point, and Marine Corps Base Camp Blaz located along Route 3 in Yigo. Construction on Marine Corps Base Camp Blaz is expected to peak between 2025 and 2030.

In 2010, the U.S. military planned to move approximately 8,600 military personnel and 9,000 dependents to Guam by 2013. The DOD subsequently altered its plans and completed a Supplementary Environmental Impact Statement ("2015 SEIS") and released a Record of Decision ("Record of Decision") for the military realignment in 2015. Based on the 2015 SEIS and Record of Decision, the DOD planned to relocate approximately 5,000 military personnel and 1,300 dependents to Guam over a 12-year period, which was expected to increase the military population on Guam by approximately 50% over levels at that time. The population increase was expected to peak at 9,721 people in calendar year 2023, including military personnel, dependents, construction and civilian personnel associated with the military realignment, and gradually reach a steady state of 7,411 people by calendar year 2028 as construction declines and construction personnel leave Guam. The 2015 SEIS and Record of Decision have not been updated since their initial publication. Based on reports from the Defense Manpower Data Center, as of December 2024, there were approximately 10,594 military personnel (consisting of active duty, reserves and civilian military workers), an increase of 1,210 military personnel since December 2015. The relocation of the Marines from Okinawa to Guam is expected to begin in summer 2025. See APPENDIX B – "GENERAL INFORMATION REGARDING THE TERRITORY OF GUAM – GEOGRAPHIC, DEMOGRAPHIC AND ECONOMIC INFORMATION – Military Activity – Military Personnel."

The expected population growth set forth in the 2015 SEIS poses significant implications for Guam's infrastructure, including the Authority's System. Pursuant to the 2015 SEIS, the DOD estimates that the military realignment will result in increased potable water demand of approximately 1.7 mgd and increased wastewater generation of approximately 1.2 mgd. Such increases would result in a significant indirect impact on the aquifer lens and in a significant indirect impact on the Northern District wastewater system, respectively. To address the increased demands on the System, the DOD and the Authority have (i) completed upgrades to the Northern District WWTP to secondary treatment and installed the related outfall diffuser (completed in 2022) (see "THE SYSTEM – The Wastewater System – Wastewater Treatment Plants – Northern District WWTP)"; (ii) refurbished the interceptor sewer that runs from the Andersen Air Force Base to the Northern District WWTP (completed in 2020); and (iii) expanded and rehabilitated the Northern Guam Lens Aquifer Monitoring System including in the northwest field area of the Andersen Air Force Base (completed in 2023).

In addition, the Missile Defense Agency ("MDA"), a research, development and acquisition agency within the DOD, together with the U.S. Department of the Army, the Navy, the Air Force and the FAA as cooperating agencies, is currently preparing an environmental impact statement ("EIS") to evaluate the potential environmental

impacts and potential mitigation of deploying and operating an Enhanced Integrated Air and Missile Defense System to defend Guam against advanced missile threats. Certain support facilities are expected to be constructed in support of the system components, including, among others, fire protection water systems/water storage. The EIS is expected to evaluate, among other things, the potential impacts of the project on water resources. Furthermore, MDA is expected to conduct certain surveys and studies to support the environmental impact analyses, including, among other things, a stormwater study and utilities and infrastructure studies. Such studies will also support required permitting and authorizations under federal regulations, including the CWA. A draft EIS has been completed, a final EIS is planned for mid-2025, and a decision is expected in late 2025. Whether the project will require the Authority's water and wastewater systems and any potential impacts to the System is currently unknown.

The Air Force, together with the Navy as a cooperating agency, has issued a notice of intent to prepare an EIS to assess the potential environmental impacts associated with a proposed project to bed down and support the mission of 12 Republic of Singapore Air Force F-15 fighter aircraft and construct new infrastructure upgrades adjacent to the northwest corner of the airfield and within the munitions storage area at Andersen Air Force Base. Construction of upgrades is expected to take place over approximately three to seven years and include airfield pavements, an aircraft hangar, maintenance and utilities buildings, fuel systems, fencing and utilities, roadways and parking, stormwater management infrastructure, and earth-covered magazines. The final EIS has been completed and a record of decision is anticipated in summer 2025. Although the Andersen Air Force Base has its own water system, wastewater from the base is discharged to the Authority's wastewater collection system. The impact of the project on the Authority's wastewater system and whether a connection to the Authority's water system will be required are currently unknown.

Except as described above, the Authority does not currently expect the U.S. military build up to materially affect the Authority's future capital requirements and has not included any capital improvements relating to the U.S. military build-up in its capital planning. Based on the memorandum of understanding entered into in 2010 and updated in 2016 by the Authority and the DOD, the Authority expects that the DOD will provide appropriate and adequate funding sources for all direct and indirect impacts to the Authority's infrastructure resulting from any build-up in order to avoid rate pressure on the Authority's civilian customers. Although the 2016 MOU does not bind either party to any financial commitments, the 2016 MOU does reflect that, among other things, the parties will evaluate and fairly distribute agreed-upon costs associated with meeting DOD requirements.

For additional information about the military realignment, see APPENDIX B – "GENERAL INFORMATION REGARDING THE TERRITORY OF GUAM – GEOGRAPHIC, DEMOGRAPHIC AND ECONOMIC INFORMATION – Military Activity."

#### HISTORICAL AND PROJECTED OPERATING RESULTS

# **Historical Operating Results**

The following table sets forth the Authority's historical operating results and debt service coverage as calculated pursuant to the 2005 Indenture for Fiscal Years 2020 through 2024.

Table 20 Historical Operating Results and Debt Service Coverage Fiscal Years 2020 through 2024<sup>(1)</sup> (\$000)

	2020	2021	2022	2023	2024
Operating Revenues:					
Water Sales Revenues <sup>(1)</sup>	\$68,351	\$67,056	\$66,735	\$68,776	\$81,926
Wastewater Revenues <sup>(1)</sup>	35,599	32,509	34,726	37,479	45,870
Other Revenues <sup>(2)</sup>	589	502	464	567	591
Total Operating Revenues <sup>(3)</sup>	\$104,539	\$100,067	\$101,925	\$106,822	\$128,387
Operating Expenses:					
Water Purchases	\$5,551	\$6,616	\$5,656	\$7,039	\$8,662
Power Purchases	14,118	12,508	18,577	24,398	21,892
Salaries and Benefits <sup>(4)</sup>	23,168	22,800	22,827	24,196	24,783
Contractual <sup>(5)</sup>	4,432	4,247	4,493	5,422	5,238
Retiree Expenses <sup>(6)</sup>	2,557	2,527	2,595	2,887	3,208
Administrative and General <sup>(7)</sup>	10,671	10,269	9,985	9,445	9,543
Total Operating Expenses	\$60,497	\$58,967	\$64,133	\$73,387	\$73,326
Amounts Available for Debt Service					
Net Operating Revenues	\$44,042	\$41,101	\$37,792	\$33,434	\$55,061
Transfer from Rate Stabilization <sup>(8)</sup>			5,750	5,650	
ARPA Grant <sup>(9)</sup>				12,400	
Investment Income – Other Funds <sup>(10)</sup>	288	71	276	1,972	3,000
Current Revenues Available for Debt Service	\$44,330	\$41,171	\$43,818	\$53,457	\$58,061
Indenture Debt Service Coverage Covenant:					
Current Revenues Available for Debt Service	\$44,330	\$41,171	\$43,818	\$53,457	\$58,061
Debt Service on Outstanding Bonds <sup>(11)</sup>	34,175	31,437	33,458	39,037	38,042
Debt Service Coverage (1.25x) <sup>(12)</sup>	1.30x	1.31x	1.31x	1.37x	1.51x

<sup>(1)</sup> Water Sales Revenues and Wastewater Revenues include revenues from the Legislative Surcharge, which ranged from \$3.2 million in Fiscal Year 2020 to \$4.06 million in Fiscal Year 2024. See "THE SYSTEM – Rates and Charges – Legislative Surcharge."

- (9) In Fiscal Year 2023, the Governor provided the Authority with \$12.4 million of ARPA funds to mitigate rate increases.
- "Investment Income Other Funds" includes interest on bond reserve funds.
- (11) Amounts shown are net of capitalized interest.
- (12) Represents the Authority's covenant to provide rates sufficient to ensure that its debt service coverage ratio equals at least 1.25x the aggregate annual debt service. See "THE SYSTEM Debt Service Coverage." Calculated based on Current Revenues Available for Debt Service divided by Debt Service on Outstanding Bonds (net of capitalized interest).

Source: Guam Waterworks Authority.

<sup>(2) &</sup>quot;Other Revenue" items include revenues from illegal connection, installation fee, reconnection fee, insufficient fund check, meter tampering, direct service, miscellaneous, trouble report water, rent – GTA lease, miscellaneous admin, account analysis, reproduction copies bills, special reading, inspection fee, verification time test, bench test, meter relocation, plan and specs, cash shorts/overs, inspection fee, miscellaneous sewer revenues and honey buckets.

<sup>(3)</sup> System Development Charge revenues are not included in Operating Revenues. These revenues ranged from \$756 thousand in Fiscal Year 2020 to \$1.7 million in Fiscal Year 2025. See "THE SYSTEM – System Development Charges."

<sup>(4) &</sup>quot;Salaries and Benefits" expenses include salaries and wages, medical, dental, and life insurance, Federal Insurance Contributions Act contributions and net pension liability, and excludes capitalized labor and non-cash pension adjustments.

<sup>(5) &</sup>quot;Contractual" expenses include audit and computer maintenance, engineering, legal, testing and other expenses, as well as building and equipment rental.

<sup>(6) &</sup>quot;Retiree and Healthcare" expenses include medical, dental and life insurance costs and supplemental annuities, and excludes COLA expense and OPEB adjustments.

<sup>(7) &</sup>quot;Administrative and General" expenses include sludge removal, chemicals, materials and supplies, transportation, communication, claims, insurance, training and travel, advertising, miscellaneous, regulatory and bad debt expense.

<sup>(8)</sup> In Fiscal Years 2022 and 2023, with CCU approval, the Authority transferred approximately \$5.75 million and \$5.65 million from the Rate Stabilization Fund to the Revenue Fund. See "THE SYSTEM – Rate Stabilization Fund."

# **Projected Operating Results**

*General*. The Authority does not as a matter of course make public projections as to future sales, earnings or other results. However, the Authority has prepared the prospective financial information as set forth in the following table to provide operating results and debt service coverage.

The accompanying prospective financial information was not prepared with a view toward complying with the guidelines established by the American Institute of Certified Public Accountants with respect to prospective financial information, but, in the view of the Authority's management, was prepared on a reasonable basis, reflects the currently available estimates and judgments, and presents, to the best of management's knowledge and belief, the expected course of action and the expected future financial performance of the Authority. However, this information is not fact and should not be relied upon as being necessarily indicative of future results, and readers of this Official Statement are cautioned not to place undue reliance on the prospective financial information. Neither the Authority's independent auditors nor any other independent accountants have compiled, examined, or performed any procedures with respect to the prospective financial information contained herein, nor have they expressed any opinion or any other form of assurance on such information or its achievability, and assume no responsibility for, and disclaim any association with, the prospective financial information. The assumptions and estimates underlying the prospective financial information are inherently uncertain and, though considered reasonable by the management of the Authority as of the date of its preparation, are subject to a wide variety of significant business, economic, and risks and uncertainties that could cause actual results to differ materially from those contained in the prospective financial information. Accordingly, there can be no assurance that the prospective results are indicative of the future performance of the Authority or that actual results will not differ materially from those presented in the prospective financial information. Inclusion of the prospective financial information in this Official Statement should not be regarded as a representation by any person that the results contained in the prospective financial information will be achieved.

(Remainder of Page Intentionally Left Blank)

Table 21
Projected Operating Results and Debt Service Coverage
Fiscal Years 2025 through 2029
(\$000)

	2025	2026	2027	2028	2029
Operating Revenues:					
Water Sales Revenues(1)	\$86,090	\$92,874	\$99,623	\$107,447	\$115,989
Wastewater Revenues <sup>(1)</sup>	47,195	54,270	58,214	62,785	67,777
Legislative Surcharge	4,007	4,561	4,893	5,277	5,697
Other Revenues <sup>(2)</sup>	515	515	515	515	515
System Development Charges	1,165	1,165	1,165	1,165	1,165
Total Operating Revenues	\$138,973	\$153,385	\$164,409	\$177,190	\$191,143
Operating Expenses:					
Water Purchases	\$9,059	\$6,958	\$6,958	\$6,958	\$6,958
Power Purchases	21,994	17,601	18,018	18,433	18,485
Salaries and Wages	33,367	37,357	38,473	39,977	41,435
Contractual <sup>(3)</sup>	6,885	9,988	9,752	9,238	9,448
Retiree and Healthcare <sup>(4)</sup>	4,477	4,624	4,759	4,903	5,054
Administrative and General <sup>(5)</sup>	10,375	13,310	13,766	14,756	15,711
<b>Total Operating Expenses</b>	\$86,158	\$89,838	\$91,725	\$94,265	\$97,090
Net Operating Revenues	\$52,815	\$63,547	\$72,684	\$82,925	\$94,052
Investment Income – Other Funds	2,089	1,198	989	955	934
Cost-of-Living Allowance	702	709	716	723	730
System Development Charges	(1,165)	(1,165)	(1,165)	(1,165)	(1,165)
Regulatory Asset Amortization <sup>(6)</sup>	841	841	(1,277)	(1,277)	(1,277)
Rate Stabilization, Transfers From (To)	(9,500)	0	(5,000)	(6,000)	0
Capitalized Labor <sup>(7)</sup>	4,338	4,856	5,001	5,197	5,386
<b>Current Revenues Available for Debt Service</b>	\$50,119	\$69,986	\$71,948	\$81,358	\$98,661
Indenture Debt Service Coverage Covenant <sup>(8)</sup> :					
Current Revenues Available for Debt Service	\$50,119	\$69,986	\$71,948	\$81,358	\$98,661
Senior Lien Debt Service <sup>(9)</sup>	37,922	51,284	52,505	57,321	71,402
Indenture Debt Service Coverage (1.25x)	1.32x	1.37x	1.37x	1.42x	1.38x

Projected revenues for Fiscal Year 2025 are based on PUC-approved 11.5% increase in water and wastewater rates, including an increase to lifeline rates. Projected revenues for Fiscal Years 2026-2029 are based on forecasted rate revenues set forth in 2024 PUC Order. Authorized rate increases for Fiscal Years 2026-2029 are subject to change and are not final until approved by the PUC in the annual true-up proceedings. See "THE SYSTEM – Rates and Charges – 2025-2029 Rate Plan."

<sup>(2) &</sup>quot;Other Revenue" items include revenues from illegal connection, installation fee, reconnection fee, insufficient fund check, meter tampering, direct service, miscellaneous, trouble report water, rent – GTA lease, miscellaneous admin, account analysis, reproduction copies bills, special reading, inspection fee, verification time test, bench test, meter relocation, plan and specs, cash shorts/overs, inspection fee, miscellaneous sewer revenues and honey buckets.

<sup>(3) &</sup>quot;Contractual" expenses include audit, meter reading and computer maintenance, engineering, legal, testing, program management fees, claims, insurance, training, advertising, building rental, equipment rental, regulatory and miscellaneous expenses, and other expenses.

<sup>(4)</sup> Retiree and Healthcare expenses include medical, dental and life insurance costs, supplemental annuities, and cost of living allowance.

<sup>(5) &</sup>quot;Administrative and General" expenses include sludge removal, chemicals, materials and supplies, transportation expense, telephone, and communication and bad debt expense.

<sup>(6)</sup> Consists of PUC-ordered regulatory asset for certain legal expenses related to specific ongoing litigation, which constitutes "other legal liability not based on contract" and, therefore, does not constitute O&M under the Indenture.

<sup>(7)</sup> For purposes of calculating coverage, certain personnel costs related to the delivery of capital improvement projects are capitalized (deducted from O&M, which increases Current Revenues Available for Debt Service).

<sup>(8)</sup> Represents the Authority's covenant to provide rates sufficient to ensure that its debt service coverage ratio equals at least 1.25x the aggregate annual debt service. See "THE SYSTEM – Debt Service Coverage." Calculated based on Current Revenues Available for Debt Service divided by Senior Lien Debt Service (net of capitalized interest).

<sup>(9)</sup> Includes existing debt service and forecasted debt service for additional bonds and interest only on short-term financing instruments.

Source: Guam Waterworks Authority; compiled from APPENDIX A – "Consultant's Feasibility Study – Financial Performance – Forecasted Operating Results – Table 7.9" and "– Projected Debt Service Coverage – Table 7-10" with modified footnotes.

Galardi Rothstein Group, using information provided by the Authority, conducted a detailed review of the System, analyzed historical financial performance, and developed the projections of revenues, operating expenses and capital project encumbrance requirements, as set forth in the table above. Such projections have been used to evaluate the financial feasibility of the 2025A Bonds. The projections are based in part on the following assumptions. For more information regarding additional assumptions not described below, see APPENDIX A – "Consultant's Feasibility Study – Financial Performance – Forecasted Operating Results."

**Projected Revenue Assumptions.** Projected water and wastewater revenues for Fiscal Year 2025 reflect PUC-approved rate increase of 11.5%. Projected water and wastewater revenues for Fiscal Years 2026-2029 are consistent with the 2024 PUC Order, reflecting an increase of 10.4% for Fiscal Year 2026 over Fiscal Year 2025, and an average increase of 7.7% for Fiscal Years 2027-2029. Projected Legislative Surcharge revenues are based on a 3.5% surcharge for Fiscal Year 2025 on non-lifeline rates only, and assume a 3.1% surcharge on all rate components, including lifeline rates, beginning in Fiscal Year 2026.

Projected Operating Expense Assumptions. Water purchases from the Navy are projected to decrease by approximately 23% from Fiscal Year 2025 to Fiscal Year 2026 and remain at approximately \$7.0 million for the remainder of the forecast period due to anticipated decreased purchase volumes. Power purchases are projected to decrease by approximately 20% from Fiscal Year 2025 to Fiscal Year 2026 due in large part to cost savings associated with the new Ukudu Power Plant, and projected to increase by approximately 1.6% per year for the remainder of the forecast period. Salaries and benefits are projected to increase by 12% in Fiscal Year 2026 over Fiscal Year 2025 with completion of the Authority's salary migration program, pay for performance adjustments, and planned staffing additions, and to increase by 3.5% per year for the remainder of the forecast period. Contractual expenses are projected to increase by 45% from Fiscal Year 2025 to Fiscal Year 2026 to fund certain technology improvements and to decrease at an average annual growth rate of 1.8% for the remainder of the forecast period. Administrative and General expenses are projected to increase by 28% from Fiscal Year 2025 to Fiscal Year 2026 due to installation of GAC treatment systems and other costs, and to increase by 5.7% per year for the remainder of the forecast period.

**Projected Debt Service Assumptions.** Projected debt service includes (i) debt service on the 2016 Bonds, 2017 Bonds, 2020A Bonds, 2020B Bonds, 2024AB Bonds; (ii) 4.86% interest expense on loans issued against short-term construction financing instruments, and (iii) debt service on the 2025A Bonds and Additional Bonds, including take-out bonds issued to repay and restore encumbrance capacity of the short-term construction financing instruments. The 2025A Bonds and Additional Bonds are assumed to have an interest rate between 5.0-5.25% with a 30-year amortization period, 1.5% costs of issuance, and a debt service reserve requirement of aggregate maximum annual debt service. The actual issuance dates and borrowing rates may vary from these assumptions.

In summary, Galardi Rothstein Group affirms the financial feasibility of the Authority's capital financing strategy, including issuance of the 2025A Bonds, based on rate revenue levels included in the 2025-2029 Financial Plan, the Authority's forecasted expense to operate and maintain the System, and projected debt service and other costs associated with existing and proposed debt obligations summarized in the Feasibility Study. For a description of the Consultant's findings and conclusions based on these projections, see APPENDIX A – "Consultant's Feasibility Study – Findings and Conclusions."

(Remainder of Page Intentionally Left Blank)

# CERTAIN INVESTMENT CONSIDERATIONS

The following discussion of considerations is not meant to be an exhaustive list of the risks associated with the purchase of the 2025A Bonds and does not necessarily reflect the relative importance of the various risks. Potential purchasers of the 2025A Bonds are advised to consider the following factors, among others, and to review all other information in this Official Statement in evaluating whether to purchase the 2025A Bonds. Any one or more of the risks discussed, and others, could lead to a decrease in the market value of and/or in the ability to sell the 2025A Bonds in the secondary market. No assurance can be given that other risk factors will not become material in the future. The 2025A Bonds may not be suitable investments for all persons. Prospective purchasers should be able to evaluate the risks and merits of an investment in the 2025A Bonds and should confer with their own legal and financial advisors before considering a purchase of the 2025A Bonds.

#### General

The principal of and interest on the Bonds, including the 2025A Bonds, is payable pursuant to the 2005 Indenture solely from the Revenues. The ability to pay debt service on the Bonds, including the 2025A Bonds, will depend on the receipt of sufficient Revenues, pledged as payment for the Bonds. The Authority's ability to generate Revenues is dependent on several factors. To the extent the Authority is unable to make up for Revenue shortfalls, the Authority's ability to pay debt service on the Bonds, including the 2025A Bonds, may be adversely affected.

#### **Limitations on Remedies**

The 2025A Bonds are not subject to acceleration under any circumstances or for any reason, including without limitation on the occurrence or continuance of an Event of Default. Upon the occurrence or continuation of an Event of Default, a Bondowner would only be entitled to principal and interest payments on the 2025A Bonds as they come due. Under certain circumstances, Holders of the 2025A Bonds may not be able to pursue certain remedies or enforce covenants contained in the 2005 Indenture. The remedies available to the Holders of the 2025A Bonds upon an Event of Default under the 2005 Indenture are in many respects dependent upon judicial actions which are often subject to discretion and delay. Under existing law, the remedies specified by the 2005 Indenture and the Bonds may not be readily available or may be limited. The various legal opinions to be delivered concurrently with the delivery of the 2025A Bonds (including Bond Counsel's approving opinion) will be qualified, as to the enforceability of the various legal instruments, by limitations imposed by insolvency or other laws affecting the rights of creditors generally.

The federal Bankruptcy Code dictates which entities are eligible to seek relief as debtors under each chapter of that federal law. Neither the Government nor the Authority are legally able to seek bankruptcy relief under current federal law. No proposed debt restructuring legislation has been introduced in the Guam Legislature, nor to the Authority's knowledge is any such legislation being contemplated or discussed. The Authority can neither predict nor provide any assurances regarding any future changes in law or legislative proposals.

### **Consultant's Feasibility Study**

The Feasibility Study included as APPENDIX A to this Official Statement contains certain assumptions and forecasts. Actual results are likely to differ, perhaps materially, from those projected. Accordingly, the projections contained in the Feasibility Study are not necessarily indicative of future performance, and neither the Consultant nor the Authority assumes any responsibility for the failure to meet such projections. In addition, certain assumptions with respect to future business and financing decisions of the Authority are subject to change. If actual results are less favorable than the results projected or if the assumptions used in preparing such projections prove to be incorrect, the amount of Revenues may be materially less than expected and consequently, the ability to make timely payments of principal and interest on the Bonds from Revenues may be materially adversely affected. See APPENDIX A – "CONSULTANT'S FEASIBILITY STUDY."

# **Uncertainties of Projections and Assumptions**

This Official Statement contains certain assumptions, estimates, projections and other forward-looking statements. Demonstration of compliance by the Authority with certain of the covenants contained in the 2005 Indenture also may be based upon assumptions, estimates and projections. Actual results, however, may differ, perhaps materially, from those projected. In addition, certain assumptions with respect to future business and financing decisions, including the decision to undertake, or to postpone or cancel, future capital improvements of the System may not occur and are subject to change. No representation is made or intended, nor should any representation be inferred, with respect to the existence of any future set of facts or circumstances, and prospective purchasers of the 2025A Bonds are cautioned not to place undue reliance upon any forecasts, estimates, plans or projections or requirements for forecasts or projections. If actual results are less favorable than the results projected or if the assumptions used in preparing projections prove to be incorrect, the ability of the Authority to make timely payment of the principal of and interest on the Bonds, including the 2025A Bonds, may be materially and adversely affected.

## **Guam Economy; Impact of Tourism and Military Presence**

*General*. The Authority's ability to generate Revenues depends in large measure on the local economy, which is heavily dependent on tourism and the U.S. military presence, both of which are dependent on world economic, social and political events.

**Tourism**. Tourism represents a significant share of the economic activity on Guam. Historically, the tourism industry, both worldwide and on Guam, has correlated closely with the state of the world's economies and levels of real disposable income. A weak economy, war, epidemic outbreaks, natural disasters or the threat of terrorist activity, among other influences that are beyond the Authority's control, can adversely affect the tourism industry. For example, the outbreak of COVID-19 in calendar year 2020 had a material impact on the tourism industry. See APPENDIX B – "GENERAL INFORMATION REGARDING THE TERRITORY OF GUAM – COVID-19 Pandemic" and "– GEOGRAPHIC, DEMOGRAPHIC AND ECONOMIC INFORMATION – Guam Tourism Industry." Currency exchange rates, trade balances, political relationships, and conflicts within and between countries are also increasingly important influences on tourism.

Economic, social and political conditions in South Korea, Japan and throughout the Pacific Rim, and the resulting effect on overseas travel from these countries, are a major determinant of tourism on Guam. For example, in response to the COVID-19 pandemic, many countries, including South Korea and Japan, issued shelter-in-place orders and travel warnings and restrictions. Total visitor arrivals decreased from a high of approximately 1.6 million in Fiscal Year 2019 to a low of approximately 61 thousand in Fiscal Year 2021. Total visitor arrivals in Fiscal Year 2024 were approximately 752 thousand. Total visitor arrivals for the first seven months of Fiscal Year 2025 are approximately 12.3% less than total visitor arrivals for the same period in Fiscal Year 2024, due in part to recent currency fluctuations and domestic tourism initiatives in South Korea and Japan. Any continued or future significant downturn in tourism, including a downturn related to South Korean or Japanese economic conditions or social policies, may result in reduced collection of Revenues. While the Guam Visitors Bureau expects visitor arrivals to rebound, no assurance can be given that Guam will not experience continued reductions in the number of visitors from South Korea, Japan and other visitor markets because of the COVID-19 pandemic or other economic, social or political conditions. See "- Worldwide Health Concerns" below and APPENDIX B - "GENERAL INFORMATION REGARDING THE TERRITORY OF GUAM - GEOGRAPHIC, DEMOGRAPHIC AND ECONOMIC INFORMATION - Guam Tourism Industry." In addition, lower levels of employment tend to reduce the revenue available to the Authority. To the extent the Authority is unable to make up for revenue shortfalls, the ability to pay debt service on the Bonds may be adversely affected.

U.S. military Presence. Guam's economy and the Authority's level of Revenues are also affected by the U.S. military presence on Guam. The U.S. military presence affects economic activity on Guam in various ways, such as through individuals' demand for commercial, construction and other services. Expansions in the U.S. military presence, such as the expansions expected to occur over the next several years, can also have a direct, positive impact on the Guam economy and the Authority's level of Revenues by spurring new economic activity and attracting visitors to Guam. However, economic, geopolitical, and other influences that are beyond the Government

and the Authority's control might result in a decision by the U.S. government to reduce the existing presence of the U.S. military on Guam or forego some or all of the planned enhancements to its presence on Guam.

Based on the 2015 SEIS and Record of Decision (see "FUTURE SYSTEM CAPITAL REQUIREMENTS – U.S. Military Realignment"), which has not been updated since its initial publication, the DOD planned to relocate approximately 5,000 military personnel and 1,300 dependents to Guam over a 12-year period, which was expected to increase the military population on Guam by approximately 50% over levels at that time. The population increase was expected to peak at 9,721 people in calendar year 2023, including military personnel, dependents, construction and civilian personnel associated with the military realignment, and gradually reach a steady state of 7,411 people by calendar year 2028 as construction declines and construction personnel leave Guam. However, based on reports from the Defense Manpower Data Center, as of December 2024, there were approximately 10,594 military personnel, an increase of 1,210 military personnel since December 2015. If the U.S. military changes its current plans with respect to staffing and other strategic improvements on Guam or if the planned population increase does not materialize, expected benefits may not be realized and the economy and the Authority's level of Revenues could be adversely affected. If the U.S. military elects to reduce or eliminate its presence on Guam, the economy and the Authority's level of Revenues could decline.

H-2B Visas. The anticipated relocation of U.S. Marines from Okinawa, Japan and other economic projects has generated a significant amount of additional construction activity on Guam. The construction industry is heavily dependent on skilled foreign workers that require H-2B visas to work on Guam. As of May 6, 2025, there were approximately 4,924 individuals with H-2B visas on Guam. From time to time, the U.S. Citizenship and Immigration Service ("USCIS") has changed, amended or modified its policies with respect to approval of H-2B visas. Future approval of new H-2B visas or extensions of existing H-2B visas is uncertain and could impact future military construction, public infrastructure and private sector projects on Guam. The National Defense Authorization Act for federal fiscal year 2021 included a new provision that specifically allows Guam to bring in H-2B workers for civilian projects, which had not been allowed in previous years. For more information regarding the status of H-2B visas, see "APPENDIX B – GENERAL INFORMATION REGARDING THE TERRITORY OF GUAM – GEOGRAPHIC, DEMOGRAPHIC AND ECONOMIC INFORMATION – H-2B Visas."

In the past, the Authority has had success in working with the DOD to secure H-2B visas for contractors working on U.S. military realignment projects under the National Defense Authorization Act. However, the denial of H-2B visas or the decline of available skilled construction workers in the future could negatively impact the Authority's ability to construct its other capital projects by increasing construction timeframes and driving up costs.

### **Federal Policy Risks**

Federal policies involving taxation, appropriations, borrowing (including the debt ceiling), trade (including tariffs), immigration, climate change, clean energy and other topics can shift, sometimes dramatically, from one presidential administration or Congress to another. From time to time, such shifts can result in reductions to the level of federal funding for a variety of policy priorities, including transportation, housing, healthcare, social services and other federally funded programs. Recently, several such policy shifts, including delays in grants and other appropriations, have been proposed or promulgated through presidential executive orders and other official and unofficial actions at the federal level. The Authority cannot predict the outcome of such proposals and other actions, nor the potential impacts of any future such changes in federal policy. However, such changes could in the future have adverse effects on revenues, operation and maintenance costs or capital funding requirements.

The Authority depends on the work of various federal agencies to conduct its operations. For example, the Authority relies, in part, on the National Oceanic and Atmospheric Administration ("NOAA"), which includes the National Weather Service, for information regarding daily weather forecasts, severe storm warnings, climate monitoring, and long-term climate projections. The Authority also relies on the USGS and the U.S. Department of the Interior ("DOI") for water resource monitoring data, particularly for the hydrologic conditions of the NGLA, to inform the Authority's water resource management. Furthermore, the Authority also relies on the US EPA for regulatory compliance guidance, water quality standards and testing protocols, infrastructure funding through various federal funding programs, and support during environmental emergencies. Recently, the federal government has ordered hiring freezes and begun conducting large-scale layoffs across federal agencies, including but not

limited to hiring freezes and layoffs at NOAA, USGS, DOI and the US EPA. The Authority cannot predict the potential impacts of such layoffs; however, such actions could have adverse effects on the Authority's operations.

# Federal Legislation

Legislation is periodically introduced in the U.S. Congress that could affect the finances or operations of the Authority. Examples of federal legislative proposals that could have an adverse effect on the Authority if they were to be introduced and become law include, but are not limited to limitations on the amount or availability of tax-exempt financing under Section 103 of the Code or elimination of the exclusion of interest on tax-exempt bonds from gross income for all or some taxpayers. Legislative proposals to eliminate or limit the benefit of tax-exempt interest on bonds such as the 2025A Bonds have been made in the past, may currently be under consideration, and may be made again in the future. If adopted, any such proposal could alter the federal tax treatment described under the heading "TAX MATTERS" or could adversely affect the market value or marketability of the 2025A Bonds. The Authority cannot predict whether any such legislation will be introduced or enacted in the current or future sessions of the U.S. Congress.

#### **Worldwide Health Concerns**

A pandemic, epidemic or outbreak of an infectious disease can have significant adverse health and financial impacts on global and local economies, including Guam. For example, the COVID-19 pandemic significantly impacted Guam and resulted in prolonged stay-at-home orders that impacted the System. In addition to certain direct impacts on the operations and finances of the Authority, the COVID-19 pandemic had significant and varied impacts on general economy activity at the local, national and global levels, including supply chain and labor market disruptions. Such disruptions, among other effects, resulted in increases in materials, labor and other costs across a wide number of sectors, as well as delays in delivery of projects and equipment. The Authority has experienced, and may in the future experience, increases in certain costs, such as for bulk chemical supplies, and delays in the delivery of equipment as a result of a disruption of supply chains from the COVID-19 pandemic. Additionally, such disruptions may result in schedule delays for the Authority's capital projects or increased costs for such projects. See "— Implementation of Capital Improvement Program" and APPENDIX B — "GENERAL INFORMATION REGARDING THE TERRITORY OF GUAM — COVID-19 Pandemic" and "— GEOGRAPHIC, DEMOGRAPHIC AND ECONOMIC INFORMATION — Guam Tourism Industry."

# **Uncertainties Relating to Political and Military Actions**

Guam is approximately 3,800 miles west-southwest of Honolulu, Hawaii, the nearest major city of the U.S. The significant U.S. military presence on Guam, its distance from locations in the U.S. and its location in relation to potential sites of political and military conflict in Asia make Guam both a location of great value to the U.S. militarily and a potential site of military conflict. Political events in Asia may create the risk of conflict for the region in general and, in some cases, for Guam. In response to threats in 2013 by North Korea to launch ballistic missile attacks against U.S. military targets, including targets on Guam, the U.S. military deployed a missile defense system to Guam. Threats by North Korea in 2017 contributed, in part, to the declining number of tourists visiting Guam in Fiscal Year 2018, which was approximately 2.0% below the total number of tourists in Fiscal Year 2017. No assurance can be given that these threats and any future military actions will not have an adverse effect on Guam tourist activity and, as a result, the availability of Revenues sufficient to pay debt service on the Bonds, including the 2025A Bonds.

### 2011 Court Order with US EPA

The 2011 Court Order, which is being administered directly by US EPA through its regional office in San Francisco, California, contains a comprehensive list of requirements, including management, operations, financial administration, facilities construction and rehabilitation and training requirements to be completed in accordance with a strict schedule. Only one project remains under the 2011 Court Order. In June 2023, the Guam District Court granted an extension for completion of the last project until December 31, 2025. See "REGULATORY ENVIRONMENT – Environmental Regulations – 2003 Stipulated Order and 2011 Court Order." Failure of the Authority to meet the scheduled requirements in connection with the final project may result in fines being assessed

against the Authority. Since the issuance of the 2011 Court Order, the Authority has not been assessed any fines for missed deadlines or received any formal notification regarding any such fines.

#### **2024 Partial Consent Decree with US EPA**

The 2024 Partial Consent Decree contains a comprehensive list of requirements, including management, operations, financial administration, facilities construction and rehabilitation and training requirements to be completed in accordance with a strict schedule. Failure of the Authority to meet the scheduled requirements of the 2024 Partial Consent Decree may result in fines being assessed against the Authority. See "REGULATORY ENVIRONMENT – Environmental Regulations – 2024 Partial Consent Decree."

#### **Typhoons and Earthquakes**

Because of its location on the southern end of the Marianas Islands chain, Guam is exposed to periodic typhoons, earthquakes and floods. Typhoons and floods have caused significant damage to the Authority's facilities in the past. Damage to the Authority's System from typhoons and flooding has included sewage spills at pump stations and collection piping, collapse of collection piping, and failure of treatment plant equipment. Damage from floods and typhoons have also damaged facilities of GPA, which provide electric power to the Authority's System. To mitigate weather related service outages due to power interruption, back-up generators have been installed at a majority of the Authority's water and wastewater pump stations. Typhoons and other significant storm events and other natural disasters occur periodically and can cause extensive damage to facilities and infrastructure, including to the Authority's System. The Authority has previously reported property losses resulting from storms damage.

The most recent typhoon that caused damage to the System was Typhoon Mawar, which struck Guam on May 24, 2023, with winds over 140 miles per hour. The Authority maintained operations throughout the storm and full water service was restored less than a month later by June 23, 2023. The Authority sustained approximately \$4.1 million in facility damages, has incurred approximately \$2.5 million in recovery costs, and is working with insurers and Federal Emergency Management Agency ("FEMA") for reimbursements. To date, the Authority has received approximately \$1.6 million in insurance reimbursements and has been awarded \$1 million from the Guam Homeland Security Office for reimbursements relating to Typhoon Mawar. The Authority continues to work with FEMA and its insurance company for resolution of outstanding reimbursement claims. See also "APPENDIX A – "CONSULTANT'S FEASIBILITY STUDY – Introduction – Overview of Developments Since 2020 – 2023 Typhoon Mawar."

Guam has established building codes that are specifically designed to ensure that structures be able to sustain strong typhoon winds and earthquakes. Existing Authority structures were designed to satisfy the building codes as then in effect; new structures, and existing structures undergoing structural rehabilitation, are designed or upgraded to comply with Guam's current building codes. The Authority's above-ground facilities are generally housed in concrete buildings designed to withstand typhoon conditions and its underground facilities are rarely affected by high winds or intense rain. Earthquakes have caused minimal damage to Authority facilities in the past, but damage to the underground pipe network may go unnoticed.

Although FEMA has historically provided disaster relief assistance after typhoon damage, there can be no assurance that future typhoons and/or earthquakes will not cause significant damage to the System, or that FEMA will provide disaster relief assistance if significant damage is experienced. There can also be no assurance that, even with FEMA assistance, damage that results from future typhoons or earthquakes will not adversely affect the operation of the System for an extended period of time and, as a result, Revenues sufficient to pay debt service on the Bonds, including the 2025A Bonds.

# Climate Change, Risk of Sea-Level Rise and Flooding Damage

Potential impacts of climate change, including rising sea levels, excessive rainfall, stronger tropical storms, drought, ocean acidification, coral bleaching, saltwater intrusion, storm surges, rising temperatures and increased migration, may threaten Guam's security and resources and have detrimental socioeconomic impacts to Guam. The Government has started system-wide coordination and long-range planning efforts to mitigate the potential adverse

environmental and socioeconomic impacts. For more information regarding such efforts, see "APPENDIX B – GENERAL INFORMATION REGARDING THE TERRITORY OF GUAM – GEOGRAPHIC, DEMOGRAPHIC AND ECONOMIC INFORMATION – Climate Change and Risk of Sea-Level Rise and Flooding Damage."

The Authority has taken proactive steps to facilitate responsible management of Guam's water resources through the development of the NGLA monitoring wells with the DOD and shared maintenance with the U.S. Navy pursuant to the One-Guam Initiative. See "THE SYSTEM – One-Guam Initiative." The Authority's Water Loss Control Program is also being undertaken to reduce withdrawal rates from the NGLA and to reduce the likelihood of saltwater intrusion from climate change.

As a small island without greatly diversified water resources, Guam is vulnerable to changes in climate, climate variability, and extreme events described above. The potential for flooding and drought can impact the Authority's freshwater supply management and associated infrastructure. While Guam does see occasional grassland fires in isolated areas during the dry season, such events are not widespread, typically occur in inaccessible areas of the southern mountain range, and do not pose a significant risk to the Authority's facilities.

Based on "Water Resources on Guam – Potential Impacts of and Adaptive Response to Climate Change," a report published by the USGS in 2019, climate change could negatively impact Guam's water supply by 2080 and the Authority will need to begin considering mitigation strategies for the potential reduction in water supply and projected increase in drought conditions.

The Authority is unable to predict the level of damage, if any, to the System that may result from sea-level rise or other impacts of climate change. There can be no assurance that any such damage will not adversely affect the operation of the System for an extended period of time and, as a result, Revenues sufficient to pay debt service on the Bonds, including the 2025A Bonds.

#### Rates

The Authority has covenanted in the 2005 Indenture to at all times, fix, prescribe and collect rents, fees and charges in connection with the services and facilities funded by the System which will be sufficient to comply with the Rate Covenant. The 2005 Indenture provides that if Revenues and Net Revenues in a Fiscal Year are insufficient to satisfy the Rate Covenant for such Fiscal Year, the Authority is required to promptly employ a consulting engineer to make recommendations as to a revision of rates, fees and charges or the methods of operation of the System, and to revise such rates, fees and charges or methods of operation and to take such other actions as will be in conformity with such recommendations, subject to applicable requirements or restrictions imposed by law and subject to a good faith determination of the Board that such recommendations, in whole or in part, are in the best interests of the Authority, the Owners and each Credit Provider, if any. The ability of the Authority to increase rates is subject to limitation, including review and approval by the PUC. Rates for water and wastewater services are regulated by the PUC. Although the PUC has historically approved rate adjustments requested by the Authority with modifications in some years, the PUC required a comprehensive review and update of the Authority's five-year financial plan for Fiscal Years 2020-2024 and certain analytical studies before approving rate adjustments for Fiscal Years 2022, 2023 and 2024. No assurance can be given that the PUC will approve any future rate adjustments requested by the Authority. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS - Rate Covenant," "THE SYSTEM - Debt Service Coverage" and "- Rates and Charges," "REGULATORY ENVIRONMENT - Regulation of Ratemaking," "THE SYSTEM - Rates and Charges - Historical Rate Adjustments" and APPENDIX A - "CONSULTANT'S FEASIBILITY STUDY - Financial Performance -Historical and Current Rates."

## Cybersecurity

The Authority relies on a complex technology environment to conduct its operations and is subject to multiple cybersecurity threats, including, but not limited to, hacking, phishing, viruses, malware, and other attacks on its computing, operational, and communications networks (collectively, "Systems Technology"). As a custodian of personal, private, and sensitive information, the Authority may be the target of cybersecurity incidents that could adversely affect its Systems Technology and require significant response actions to mitigate their consequences.

Cybersecurity incidents may arise from unintentional events or from deliberate attacks by unauthorized individuals or entities seeking to misappropriate assets or information, or to disrupt Authority operations. Such breaches could damage the Authority's Systems Technology, materially disrupt its finances and operations, expose the Authority to litigation or regulatory action, and result in substantial financial costs related to mitigation, remediation, and legal proceedings.

To address these risks, the Authority, in collaboration with GPA, has adopted cybersecurity policies and protocols based on the National Institute of Standards and Technology Special Publication 800 series guidelines. The Authority's cybersecurity program includes a cybersecurity plan approved by the U.S. Department of Energy, comprehensive system testing, vulnerability assessments, adoption of business continuity and disaster recovery Plans, and refreshed incident response plans for all departments and divisions.

The Authority conducts annual external network security and vulnerability assessments covering information technology general controls, operational technology networks, site physical security, and penetration testing. Assessments were most recently conducted in March 2025 and will be conducted annually moving forward. The Authority continues to implement critical redundancy solutions across its IT and OT networks, perform regular updates, manage end-of-support devices, and enhance its cybersecurity standard operating procedures.

Further, the Authority has a mature cybersecurity awareness training program for employees and participates in multiple tabletop exercises to validate its incident response capabilities. Through these measures, the Authority aims to reduce its cybersecurity risk exposure; however, no assurance can be given that such measures will prevent all cybersecurity incidents or materially mitigate their effects. A significant cybersecurity event could materially and adversely affect the Authority's financial condition, operations, or reputation.

The Government coordinates cybersecurity readiness and response efforts across agencies, with support from the Guam Homeland Security Advisor and the Mariana Regional Fusion Center. These entities help facilitate territory-wide cybersecurity programs in collaboration with agency IT teams, the National Governors Association, and various federal partners. The Government continues to strengthen its cyber capabilities through interagency coordination, information sharing, and exercises with local and national stakeholders. These partnerships further strengthen the Authority's cybersecurity preparedness.

Despite these proactive efforts, the Authority cannot guarantee that it will not experience a cybersecurity event that could materially impact its operations or financial position.

#### Insurance

The Authority maintains property insurance with a blanket coverage of up to \$30 million, including coverage of earthquakes, windstorms, floods, typhoons and tidal waves, business interruption and boiler and explosion and machinery breakdown. The Authority also maintains commercial automobile insurance with liability coverage up to \$2 million, crime insurance with coverage of up to \$1 million, and directors and officer's liability insurance with coverage up to \$2 million. In addition, the Authority maintains general liability insurance with coverage of \$25 million.

# **Government Regulation**

The federal and local governments significantly regulate the operations of the Authority. Regulations and conditions affecting the acquisition, development, ownership and operation of the System could increase the operating expenses of the System or could otherwise have a material adverse effect on the operations and financial condition of the Authority.

## **Implementation of Capital Improvement Program**

Successful and timely implementation of the Authority's capital improvement program will require careful planning and coordination as well as hiring additional experienced construction management and workers, and other

staff and consultants, including off-island personnel and vendors. The Authority intends to enter into contracts with qualified construction management firms to manage a portion of its capital improvement projects.

The ability of the Authority to complete the capital improvement projects on time and on budget may be adversely affected by various factors including: (i) estimating errors, (ii) design and engineering errors, (iii) changes to the scope of the projects, (iv) delays in contract awards, (v) material and/or labor shortages (see also "CERTAIN INVESTMENT CONSIDERATIONS – Guam Economy; Impact of Tourism and Military Presence – *H-2B Visas*"), (vi) unforeseen site conditions, (vii) adverse weather conditions, earthquakes or other casualty events, (viii) contractor defaults, (ix) labor disputes, (x) unanticipated levels of inflation or significant increases in the costs of materials and (xi) environmental issues. Information regarding the Authority's 2025-2029 CIP is set forth under "FUTURE SYSTEM CAPITAL REQUIREMENTS – Capital Improvement Program – 2025-2029 CIP." No assurance can be made that the capital improvement projects will not cost more than budgeted. Any schedule delays or cost increases could result in the need to issue Additional Bonds.

Funding for the Authority's 2025-2029 CIP is expected from various sources, including proceeds of previously issued bonds, the 2025A Bonds and Additional Bonds expected to be issued in Fiscal Year 2028, various prior and future grants, including US EPA State Revolving Fund grants, operating revenues, revenues from System Development Charges, and certain reserves. In the event one or more of these funding sources is not available to the Authority in the amount or on the schedule described above under "FUTURE SYSTEM CAPITAL REQUIREMENTS," the implementation of some of the 2025-2029 CIP projects may be delayed.

# **Secondary Treatment Requirements Under NPDES Permit**

The NPDES permit issued by the US EPA in 2020 includes secondary treatment requirements for four of the Authority's wastewater treatment plants; however, the Hagåtña WWTP is not currently equipped to provide secondary treatment. The Authority originally estimated that the design and construction necessary to satisfy the secondary treatment requirements would take approximately five years, and the cost of upgrading the Hagåtña WWTP would be approximately \$268 million (in 2023 dollars) based on planning conducted as part of the Authority's 2018 WRMP Update. Under the 2024 Partial Consent Decree, the US EPA provided modified effluent discharge limitations, with which the Hagåtña WWTP is complying. Further, the Authority is required to submit a feasibility study for secondary treatment upgrades to the Hagåtña WWTP to the US EPA by January 2031 for review and approval. The feasibility study is required to include analyses of design options, alternative locations, climate change and sea level rise, and planning level construction cost estimates and construction timelines. See "THE SYSTEM — The Wastewater System — *Wastewater Treatment Plants* — Hagåtña WWTP" and "REGULATORY ENVIRONMENT — Environmental Regulations — 2024 Partial Consent Decree."

## LITIGATION

### No Litigation Relating to the 2025A Bonds

There is no litigation or proceeding pending or, to the knowledge of the Authority, threatened and having merit (either in Guam, state or federal courts) seeking to restrain or enjoin the execution, issuance, sale or delivery of the 2025A Bonds or the collection, pledge or payment of Revenues by the Authority under the 2005 Indenture, or in any way contesting or affecting the legal existence of the Authority or the titles of certain relevant officials of the Authority to their offices or the validity or enforceability of the 2025A Bonds or the 2005 Indenture.

# **Core Tech International Corporation Litigation**

In 2018, the Government's Director of Land Management filed suit against Core Tech International Corporation ("CTI") in the Superior Court of Guam (the "Guam Superior Court") to rescind several certificates of title, which the Government has claimed were erroneously issued by the Deputy Civil Registrar to CTI's predecessor-in-interest in 2014. The Authority intervened and asserted a quiet title action. The quiet title action addressed certificates of title for property upon which the Northern District WWTP is located (known as Lots 10193 and 10194), which have been continuously owned, used and occupied by the federal government, the Government and the PUAG (the Authority's predecessor agency) through the construction and operation of the Northern District

WWTP since 1979, and by the Authority since 1997. A 1997 grant deed recorded by the Department of Land Management shows ownership in the Authority. CTI has subsequently filed a crossclaim against the Authority, a counterclaim against the Government and another counterclaim against the Authority, seeking just compensation for inverse condemnation in the amount of \$220 million, as well as damages for trespass and encroachment by the Authority.

In August 2023 and April 2024, two Guam Superior Court orders granted and upheld title in the Northern District WWTP to CTI, finding an automatic reversion of the property favoring CTI. In January 2025, the Supreme Court of Guam (the "Guam Supreme Court") granted the Authority's request to file an interlocutory appeal challenging the orders. Appellate briefing commenced in April 2025 and is expected to conclude before July 2025. The Authority's quiet title action before the Guam Superior Court is currently stayed until the interlocutory appeal before the Guam Supreme Court is resolved.

Although the Authority and the Government believe the matters will be resolved in their favor, the Authority and the Government cannot predict the outcome of the cases before the Guam Supreme Court or the Guam Superior Court. In the event that the Guam Supreme Court and the Guam Superior Court enter judgments against the Authority and the Government, the resulting liability could have a material and adverse impact on the Authority's financial position. The Authority and the Government intend to vigorously defend themselves against CTI's claims, and the Authority intends to vigorously pursue the interlocutory appeal and the quiet title action.

## **Ordot Landfill Litigation**

On November 5, 2024, Gershman Brickner and Bratton, Inc. ("GBB"), the federal receiver for the Ordot Landfill, filed a \$4.4 million lawsuit against the Authority. The suit claims that the Authority caused increased leachate flows at the landfill, resulting in extraordinary treatment and investigation costs for both GBB and the Guam Solid Waste Authority ("GSWA"). On January 6, 2025, the Authority filed a Motion to Dismiss, arguing that GBB failed to properly file a government claim and lacks authority to sue on GSWA's behalf without GSWA's consent. The Guam Superior Court heard arguments on the Motion to Dismiss on April 18, 2025, and took the matter under advisement. While confidential settlement negotiations began in January 2025, these talks were later converted to non-confidential discussions. Settlement negotiations have since stalled, with no further engagement between the parties. The Authority intends to vigorously defend itself against GBB's claims.

### Other Litigation Relating to the Authority and the System

Other than as disclosed elsewhere in this Official Statement, there are no pending claims or actions against the Authority arising from the operation and maintenance of the System that, if determinations or settlements were made adverse to the Authority, would have, in the opinion of the Authority's counsel, a material adverse effect on the Authority's financial position.

#### TAX MATTERS

In the opinion of Orrick, Herrington & Sutcliffe LLP, Bond Counsel to the Authority ("Bond Counsel"), based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the 2025A Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 (the "Code"). Bond Counsel is of the further opinion that interest on the 2025A Bonds is not a specific preference item for purposes of the federal individual alternative minimum tax. Bond Counsel observes that interest on the 2025A Bonds included in adjusted financial statement income of certain corporations is not excluded from the federal corporate alternative minimum tax. Bond Counsel is also of the opinion that, under 48 U.S.C. Section 1423a, interest on the 2025A Bonds is exempt from taxation by the Government of Guam, or by any state or territory of the United States or any political subdivision thereof, or by the District of Columbia. Bond Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual, or receipt of interest on, the 2025A Bonds. A complete copy of the proposed form of opinion of Bond Counsel is set forth in APPENDIX E hereto.

To the extent the issue price of any maturity of the 2025A Bonds is less than the amount to be paid at maturity of such 2025A Bonds (excluding amounts stated to be interest and payable at least annually over the term of such 2025A Bonds), the difference constitutes "original issue discount," the accrual of which, to the extent properly allocable to each Beneficial Owner thereof, is treated as interest on the 2025A Bonds which is excluded from gross income for federal income tax purposes and is exempt from taxation by the Government of Guam, or by any state or territory of the United States or any political subdivision thereof, or by the District of Columbia. For this purpose, the issue price of a particular maturity of the 2025A Bonds is the first price at which a substantial amount of such maturity of the 2025A Bonds is sold to the public (excluding bond houses, brokers, or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers). The original issue discount with respect to any maturity of the 2025A Bonds accrues daily over the term to maturity of such 2025A Bonds on the basis of a constant interest rate compounded semiannually (with straight-line interpolations between compounding dates). The accruing original issue discount is added to the adjusted basis of such 2025A Bonds to determine taxable gain or loss upon disposition (including sale, redemption, or payment on maturity) of such 2025A Bonds. Beneficial Owners of the 2025A Bonds should consult their own tax advisors with respect to the tax consequences of ownership of 2025A Bonds with original issue discount, including the treatment of Beneficial Owners who do not purchase such 2025A Bonds in the original offering to the public at the first price at which a substantial amount of such 2025A Bonds is sold to the public.

2025A Bonds purchased, whether at original issuance or otherwise, for an amount higher than their principal amount payable at maturity (or, in some cases, at their earlier call date) ("**Premium Bonds**") will be treated as having amortizable bond premium. No deduction is allowable for the amortizable bond premium in the case of bonds, like the Premium Bonds, the interest on which is excluded from gross income for federal income tax purposes. However, the amount of tax-exempt interest received, and a Beneficial Owner's basis in a Premium Bond, will be reduced by the amount of amortizable bond premium properly allocable to such Beneficial Owner. Beneficial Owners of Premium Bonds should consult their own tax advisors with respect to the proper treatment of amortizable bond premium in their particular circumstances.

The Code imposes various restrictions, conditions and requirements relating to the exclusion from gross income for federal income tax purposes of interest on obligations such as the 2025A Bonds. The Authority has made certain representations and covenanted to comply with certain restrictions, conditions and requirements designed to ensure that interest on the 2025A Bonds will not be included in federal gross income. Inaccuracy of these representations or failure to comply with these covenants may result in interest on the 2025A Bonds being included in gross income for federal income tax purposes, possibly from the date of original issuance of the 2025A Bonds. The opinion of Bond Counsel assumes the accuracy of these representations and compliance with these covenants. Bond Counsel has not undertaken to determine (or to inform any person) whether any actions taken (or not taken), or events occurring (or not occurring), or any other matters coming to Bond Counsel's attention after the date of issuance of the 2025A Bonds may adversely affect the value of, or the tax status of interest on, the 2025A Bonds. Accordingly, the opinion of Bond Counsel is not intended to, and may not, be relied upon in connection with any such actions, events or matters.

Although Bond Counsel is of the opinion that interest on the 2025A Bonds is excluded from gross income for federal income tax purposes and, under 48 U.S.C. 1423a, is exempt from taxation by the Government of Guam or by any state or territory of the United States or any political subdivision thereof, or by the District of Columbia, the ownership or disposition of, or the accrual or receipt of amounts treated as interest on, the 2025A Bonds may otherwise affect a Beneficial Owner's federal, state or local tax liability. The nature and extent of these other tax consequences depends upon the particular tax status of the Beneficial Owner or the Beneficial Owner's other items of income or deduction. Bond Counsel expresses no opinion regarding any such other tax consequences.

Current and future legislative proposals, if enacted into law, clarification of the Code or court decisions may cause interest on the 2025A Bonds to be subject, directly or indirectly, in whole or in part, to federal income taxation or to be subject to or exempted from state income taxation, or otherwise prevent Beneficial Owners from realizing the full current benefit of the tax status of such interest. The introduction or enactment of any such legislative proposals or clarification of the Code or court decisions may also affect, perhaps significantly, the market price for, or marketability of, the 2025A Bonds. Prospective purchasers of the 2025A Bonds should consult their own tax advisors regarding the potential impact of any pending or proposed federal or state tax legislation, regulations or litigation, as to which Bond Counsel expresses no opinion.

The opinion of Bond Counsel is based on current legal authority, covers certain matters not directly addressed by such authorities, and represents Bond Counsel's judgment as to the proper treatment of the 2025A Bonds for federal income tax purposes. It is not binding on the Internal Revenue Service ("IRS") or the courts. Furthermore, Bond Counsel cannot give and has not given any opinion or assurance about the future activities of the Authority, or about the effect of future changes in the Code, the applicable regulations, the interpretation thereof or the enforcement thereof by the IRS. The Authority has covenanted, however, to comply with the requirements of the Code.

Bond Counsel's engagement with respect to the 2025A Bonds ends with the issuance of the 2025A Bonds, and, unless separately engaged, Bond Counsel is not obligated to defend the Authority or the Beneficial Owners regarding the tax-exempt status of the 2025A Bonds in the event of an audit examination by the IRS. Under current procedures, Beneficial Owners would have little, if any, right to participate in the audit examination process. Moreover, because achieving judicial review in connection with an audit examination of tax-exempt bonds is difficult, obtaining an independent review of IRS positions with which the Authority legitimately disagrees, may not be practicable. Any action of the IRS, including but not limited to selection of the 2025A Bonds for audit, or the course or result of such audit, or an audit of bonds presenting similar tax issues may affect the market price for, or the marketability of, the 2025A Bonds, and may cause the Authority or the Beneficial Owners to incur significant expense.

Payments on the 2025A Bonds generally will be subject to U.S. information reporting and possibly to "backup withholding." Under Section 3406 of the Code and applicable U.S. Treasury Regulations issued thereunder, a non-corporate Beneficial Owner of 2025A Bonds may be subject to backup withholding with respect to "reportable payments," which include interest paid on the 2025A Bonds and the gross proceeds of a sale, exchange, redemption, retirement or other disposition of the 2025A Bonds. The payor will be required to deduct and withhold the prescribed amounts if (i) the payee fails to furnish a U.S. taxpayer identification number ("TIN") to the payor in the manner required, (ii) the IRS notifies the payor that the TIN furnished by the payee is incorrect, (iii) there has been a "notified payee underreporting" described in Section 3406(c) of the Code or (iv) the payee fails to certify under penalty of perjury that the payee is not subject to withholding under Section 3406(a)(1)(C) of the Code. Amounts withheld under the backup withholding rules may be refunded or credited against a Beneficial Owner's federal income tax liability, if any, provided that the required information is timely furnished to the IRS. Certain Beneficial Owners (including among others, corporations and certain tax-exempt organizations) are not subject to backup withholding. The failure to comply with the backup withholding rules may result in the imposition of penalties by the IRS.

#### UNDERWRITING

The 2025A Bonds are to be purchased from the Authority by RBC Capital Markets, LLC and Raymond James & Associates, Inc. (collectively, the "Underwriters") pursuant to the terms of a bond purchase agreement (the "Bond Purchase Agreement") between the Underwriters and the Authority. The purchase price of the 2025A Bonds is \$\_\_\_\_\_\_\_\_, representing the aggregate principal amount of the 2025A Bonds (\$\_\_\_\_\_\_\_\_\_), [plus/less] [net] an original issue [premium/discount] of \$\_\_\_\_\_\_\_, and less an underwriters' discount of \$\_\_\_\_\_\_. The Bond Purchase Agreement provides that the Underwriters will purchase all of the 2025A Bonds if any are purchased and that the obligation to make such purchase is subject to certain terms and conditions set forth in the Bond Purchase Agreement, including the approval by counsel of certain legal matters.

The Underwriters reserve the right to join with dealers and other underwriters in offering the 2025A Bonds to the public. The Underwriters intend to offer the 2025A Bonds for sale at the prices or yields set forth on the inside cover page hereof. Such initial public offering prices or yields may be changed from time to time by the Underwriters without prior notice. The Underwriters may offer and sell the 2025A Bonds to certain dealers, unit investment trusts or money market funds at prices lower than or at yields higher than the public offering prices or yields stated on the inside cover page.

The Underwriters and their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. The Underwriters and their

affiliates may have, from time to time, performed, and may in the future perform, various investment banking services for the Authority, for which they received or will receive customary fees and expenses.

In the ordinary course of its various business activities, the Underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the Authority.

#### CONSULTANT'S FEASIBILITY STUDY

The Feasibility Study included herein as APPENDIX A has been prepared by Galardi Rothstein Group. The Feasibility Study is included in reliance upon the professional opinion of the Consultant with respect to the matters stated in such Report. The Feasibility Study should be read in its entirety for a complete understanding of the assumptions and rationale for the projections.

#### FINANCIAL STATEMENTS

The financial statements of the Authority for the Fiscal Year 2024 have been audited by Ernst & Young LLP, independent auditors, as stated in their report, appearing in APPENDIX C hereto. Reference should be made to the audited financial statements included in APPENDIX C for the independent auditors' report and a complete understanding of the information provided therein.

#### **CERTAIN LEGAL MATTERS**

The issuance of the 2025A Bonds is subject to receipt of the approving opinion of Bond Counsel. The proposed form of opinion of Bond Counsel with respect to the 2025A Bonds is included in this Official Statement as APPENDIX E. Bond Counsel undertakes no responsibility for the accuracy, completeness or fairness of this Official Statement. From time to time Orrick, Herrington & Sutcliffe LLP serves as counsel to the Underwriters on matters that do not relate to the Authority or to the 2025A Bonds.

Certain legal matters will be passed upon for the Authority by Theresa Rojas, general counsel for the Authority. Certain legal matters will be passed upon by Orrick, Herrington & Sutcliffe LLP, as Disclosure Counsel to the Authority. Certain legal matters will be passed upon for the Underwriters by their counsel, Hawkins Delafield & Wood LLP.

#### AVAILABLE INFORMATION

Copies of the Authority's audited financial statements are available at https://guamwaterworks.org/financial-reports/. The website is provided for convenience only and information and repots available on such website is not incorporated by reference into this Official Statement and should not be relied upon in making an investment in the 2025A Bonds. Copies of the 2005 Indenture may be obtained, upon written request, from the Underwriters.

#### RATINGS

Moody's Investors Service, Inc. ("Moody's") and S&P Global Ratings ("S&P") have assigned their ratings of "\_\_\_" and "\_\_\_," respectively, to the 2025A Bonds. The ratings reflect only the view of the rating agencies assigning such ratings at the time such ratings are given, and the Authority makes no representations as to the appropriateness of such ratings. Any explanation of the significance of such ratings may only be obtained from the rating agency furnishing the same. Certain information and materials not included in this Official Statement were furnished to the rating agencies concerning the 2025A Bonds. Generally, rating agencies base their ratings on such information and materials and on investigation, studies and assumptions by the rating agencies. There is no assurance that the ratings mentioned above will remain for any given period of time or that any or all of them might not be lowered or withdrawn entirely by any rating agency if in the judgment of any or all rating agencies,

circumstances so warrant. Any such downward change in or withdrawal of such ratings might have an adverse effect on the market price for and marketability of the 2025A Bonds. A securities rating is not a recommendation to buy, sell or hold securities.

#### CONTINUING DISCLOSURE

The Authority will covenant for the benefit of the holders and beneficial owners of the 2025A Bonds to provide certain financial information and operating data relating to the Authority by not later than 270 days after the end of the Fiscal Year (presently September 30) to which such information pertains, commencing with the report for the Fiscal Year ending September 30, 2025 (each, an "Annual Report") and to provide notices of the occurrence of certain enumerated events. Each Annual Report and any notices of enumerated events will be filed with the Municipal Securities Rulemaking Board, through its EMMA system. The specific nature of the information to be contained in each Annual Report or the notices of certain enumerated events is described in APPENDIX F – "PROPOSED FORM OF CONTINUING DISCLOSURE AGREEMENT" attached hereto. These covenants will be made in order to assist the Underwriters in complying with Rule 15c2-12.

In order to provide certain continuing disclosure with respect to the 2025A Bonds in accordance with Rule 15c2-12, the Authority has entered into a Continuing Disclosure Agreement relating to the 2025A Bonds (the "Continuing Disclosure Agreement") with Digital Assurance Certification, L.L.C. ("DAC") for the benefit of the Holders of the 2025A Bonds under which the Authority has designated DAC as Dissemination Agent.

The Dissemination Agent has only the duties specifically set forth in the Continuing Disclosure Agreement. The Dissemination Agent's obligation to deliver the information at the times and with the contents described in the Continuing Disclosure Agreement is limited to the extent the Authority has provided such information to the Dissemination Agent as required by the Continuing Disclosure Agreement.

#### MUNICIPAL ADVISOR

Montague DeRose and Associates, LLC, Walnut Creek, California (the "Municipal Advisor"), is acting as municipal advisor to the Authority with respect to the 2025A Bonds. The Municipal Advisor has assisted the Authority in the preparation of this Official Statement and in other matters relating to the planning, structuring, execution and delivery of the 2025A Bonds. The Municipal Advisor has not independently verified any of the data contained herein or conducted a detailed investigation of the affairs of the Authority to determine the accuracy or completeness of this Official Statement. Because of its limited participation, the Municipal Advisor assumes no responsibility for the accuracy or completeness of any of the information contained herein. The Municipal Advisor will not purchase or make a market in any of the 2025A Bonds. The compensation to be received by the Municipal Advisor from the Authority for services provided in connection with the planning, structuring, execution and delivery of the 2025A Bonds is contingent upon the sale and delivery of the 2025A Bonds.

(Remainder of Page Intentionally Left Blank)

#### **MISCELLANEOUS**

The attached Appendices are integral parts of this Official Statement and should be read in their entirety. The Authority has reviewed the information contained herein and has approved all such information for use in this Official Statement.

The execution and delivery of this Official Statement has been duly authorized by the Authority.

GUAM WATERWORKS AUTHORITY
By:
Miguel Bordallo, P.E.
General Manager
CONSOLIDATED COMMISSION ON UTILITIES  By:
Francis E. Santos
Chairman

# APPENDIX A CONSULTANT'S FEASIBILITY STUDY

# **June 2025**

# **Consultant's Feasibility Study**

# Water and Wastewater System Revenue Bonds Series 2025

**Prepared for:** 



Prepared by:

**Galardi Rothstein Group** 

June 1, 2025

Miguel Bordallo, P.E., General Manager Taling Taitano, Chief Financial Officer Theresa G. Rojas, Esq., General Counsel

Guam Waterworks Authority Gloria B. Nelson Public Service Building 688 Route 15, Suite 304 Mangilao, Guam 96913



Subject: Consultant's Feasibility Study Water and Wastewater System Revenue Bonds, Series 2025

Miguel, Taling, and Theresa,

GWA engaged Galardi Rothstein Group to prepare this report on the financial feasibility of the Authority's Water and Wastewater System Revenue Bonds, Series 2025. This report has been developed in collaboration with the Authority's staff which is responsible for operating, controlling, and administering GWA's water and wastewater system.

The report provides descriptions of the Authority's water and wastewater systems, and assessments of asset conditions and regulatory compliance performance, discusses recent developments that have had material financial implications, and reviews GWA's audited financial performance over the period FY 2020 - FY2024. The report provides projections of System revenues, operating expenses, capital improvement project encumbrances and debt service coverage for the period FY 2025 – 2029. This report incorporates:

- Service revenue projections over the forecast period reflecting assumptions of limited account growth, declining per account billable volumes, and PUC approved annual rate adjustments to provide for financial performance as outlined in the Decision Order for PUC Docket No. 24-05.
- Revisions to Operation & Maintenance expense projections that account for savings in utilities expenses, market-based migration of staff compensation, and inflationary factors.
- Capital improvement program (CIP) encumbrance projections totaling \$898.75 million that incorporate requirements of the recently entered Partial Consent Decree with the US EPA, proactive measures to address water quality issues, continued water loss control efforts and corresponding reduction of Navy Water purchase requirements, and continued renewal and reinvestment in infrastructure assets.
- Implementation of a capital financing strategy featuring the Series 2025 bonds, additional revenue bond issues, and strategic use of short-term construction financing instruments.

The financial projections reported herein demonstrate that GWA can support the Series 2025 bonds throughout the forecast period from System revenues derived primarily from PUC-approved water and wastewater rates and charges. We affirm the financial feasibility of GWA's capital financing strategy for the forecast period. We appreciate the opportunity to conduct this review and are prepared to answer any questions regarding its contents.

Eric Rothstein, CPA, Principal

The Robert

# **Table of Contents**

L.C	)	INT	RODUCTION	1
1	1	P	URPOSE	1
1	2	So	COPE	1
1	3	Fı	IRM QUALIFICATIONS	2
1	.4	P	URPOSE OF THE SERIES 2025 BONDS	3
1	5	0	VERVIEW OF DEVELOPMENTS SINCE 2020	3
	1.5	5.1	Settlement of Meter Failure Litigation / Meter Replacements	3
	1.5	5.2	FY 2020 – 24 Rate Adjudication: Comprehensive Review and Update Process	4
	1.5	5.3	2023 Typhoon Mawar	4
	1.5	5.4	2024 Partial Consent Decree	4
	1.5	5.5	Water Loss Control - DMA Implementation	5
	1.5	.6	Core Tech Litigation	5
	1.5	5.7	Completion of 2011 Court Order Requirements	5
	1.5	.8	Emerging Contaminants	6
	1.5	5.9	FY 2025 – 29 Rate Adjudication	6
	1.5	.10	Short-Term Financing	6
1	6	V	IILITARY REALIGNMENT	7
1	7	0	NE GUAM INITIATIVE	8
1	8	R	EPORT ORGANIZATION	8
2.0	) (	GU	AM WATERWORKS AUTHORITY	10
2	2.1	IN	ITRODUCTION	10
2	2.2	G	WA GOVERNANCE	10
2	2.3	0	PERATING DIVISIONS	11
	2.3	3.1	General Manager	11
	2.3		Communications	
	2.3		Internal Audit	

	2.3.4	Legal	11
	2.3.5	Finance	13
	2.3.6	Administrative Services Division	13
	2.3.7	Compliance and Safety	14
	2.3.8	Engineering	14
	2.3.9	Operations and Maintenance	16
	2.4 <b>S</b>	TAFFING LEVELS, HIRING AND UNIONIZATION	. 17
	2.5 <b>T</b>	RAINING AND CERTIFICATIONS	. 18
	2.6 <b>N</b>	AJOR OPERATING PROGRAMS	. 18
	2.6.1	Asset Management	18
	2.6.2	Water Loss Control Program	19
	2.6.3	Compliance Programs	19
	2.6.4	Cyber Security	20
3	.0 W	ATER SYSTEM	.22
	3.1 <b>V</b>	VATER SOURCES AND TREATMENT	. 22
	3.1.1	Groundwater	23
	3.1.2	Springs	
	3.1.3	Surface Water	
	3.1.4	Water Sources and Treatment - Facility Conditions	
	3.2 <b>V</b>	VATER DISTRIBUTION SYSTEMS	. 27
	3.2.1	Transmission and Distribution System	30
	3.3 <b>S</b>	YSTEM MONITORING	. 31
	3.4 N	ON-REVENUE WATER	. 32
4	.0 W	ASTEWATER SYSTEM	.34
	4.1 <b>V</b>	Vastewater System Overview	34
	4.1.1	2024 GWA Wastewater Partial Consent Decree	
		VASTEWATER COLLECTION SYSTEMS	
	4.2.1	Wastewater Collection System Condition	
	4.2.2	Wastewater Pump Stations Condition	38
	4.3 <b>V</b>	VASTEWATER TREATMENT AND DISPOSAL SYSTEMS	. 38
	121	NDM/M/TD	10

	4.3.2	Hagåtña WWTP	41
	4.3.3	Agat-Santa Rita WWTP	41
	4.3.4	Inarajan WWTP	42
	4.3.5	Umatac-Merizo WWTP	42
	4.3.6	Pago Socio WWTP	43
5.0	R	EGULATORY AND LEGAL ISSUES	44
5	.1	RATE REGULATION	44
5	.2	2011 COURT ORDER COMPLIANCE	44
5	.3	PARTIAL CONSENT DECREE	45
5	.4	SECONDARY TREATMENT	45
5	.5	EMERGING CONTAMINANTS	46
	5.5.1	PFOS and PFOA	46
	5.5.2	Dieldrin	46
5	.6	LEGAL ISSUES	46
	5.6.1	Core Tech Litigation	47
	5.6.2	Landfill Leachate	47
	5.6.3	PFAS	47
6.0	C	APITAL IMPROVEMENT PROGRAM	48
6	.1	CAPITAL PROGRAM PLANNING PROCESS AND KEY CONSIDERATIONS	48
	6.1.1	Water Resources Management Plan Updates	48
	6.1.2	Weather / Location Related Risks	49
	6.1.3	Changes in the Environment	49
	6.1.4	Natural Disasters	49
	6.1.5	Contractor Availability	49
6	.2	CAPITAL PROGRAM PROJECT CATEGORIES	50
	6.2.1	Water Production, Treatment, Distribution, and Storage	50
	6.2.2	Wastewater Collection and Treatment	51
	6.2.3	Electrical, Monitoring and Control	51
	6.2.4	General Plant and Miscellaneous	51
6	.3	CAPITAL PROGRAM ENCUMBRANCES	52
7 0		NANCIAL DEDECORAÇÃO	ΕΛ

7.1	Overview	54
7.2	HISTORICAL PERFORMANCE	54
7.3	HISTORICAL AND CURRENT RATES	56
7.4	BILL COMPARISONS & AFFORDABILITY	59
7.5	PROPOSED RATE STRUCTURE CHANGES	60
7.6	CAPITAL FINANCING	60
7.7	HISTORICAL AND FORECASTED BILLING DETERMINANTS	63
7.8	HISTORICAL ACCOUNT, DEMAND AND FLOW DATA	63
7.8.	1 Projected Billing Determinants	66
7.9	FORECASTED OPERATING RESULTS	68
7.9.	1 Revenues	68
7.9	2 Operating Expenses	70
7.9.	3 Debt Service	72
7.9.	4 Current Revenue Financing of Capital Improvements	74
7.9.	5 Operating Reserves	74
7.10	PROJECTED DEBT SERVICE COVERAGE	74
7.11	FINANCIAL PERFORMANCE SUMMARY	76
8.0 C	CONCLUSIONS	78
APPEND	DIX I - PROPOSED FY 2026 RATES	79
APPEND	DIX II - FY 2026 BILL IMPACT SCHEDULE	80

# **List of Acronyms and Abbreviations**

2011 Court Order Order for Preliminary Relief re: Deadlines for Outstanding Projects under the

Amended Stipulated Order

AAFB Andersen Air Force Base

AC asbestos cement

ACH aluminum chlorohydrate

AFB Air Force Base

A&G Administrative & General

AMR automated meter reading

ATAD autothermal thermophilic aerobic digestion

Authority Guam Waterworks Authority (also GWA)

AWWA American Water Works Association

BC Brown and Caldwell

BoG Bank of Guam

BPS booster pump station

CCTV closed-circuit television

CCU Consolidated Commission on Utilities

CEPT chemically enhanced primary treatment

CIP Capital Improvement Plan/Program

CM corrective maintenance

CMMS Computerized Maintenance Management System

COLA Cost of Living Adjustment

CPM Certified Public Manager

CWA Clean Water Act

CY calendar year

DBP disinfection by-product

DOC dissolved organic carbon

DLM Department of Land Management

ı

DMA District Metering Area

DoD Department of Defense

DSC debt service coverage

EIS Environmental Impact Statement

FEMA Federal Emergency Management Agency

FOG fats, oils and grease

FTE full-time equivalent

FY fiscal year

GAC granular activated carbon

GBB Gershman Brickner and Bratton, Inc.

GCA Guam Code Annotated

GEDA Guam Economic Development Authority

GEPA Guam Environmental Protection Agency

GFT Guam Federation of Teachers

GIAA Guam International Airport Authority

GIS Geographical Information Systems

GPA Guam Power Authority

GPDWR Guam Primary Drinking Water Regulations

gpm gallon(s) per minute

GSWA Guam Solid Waste Authority

GWA Guam Waterworks Authority (also Authority)

GWA System existing water and wastewater system

GWQS Guam Water Quality Standards

GWUDI Groundwater under the Direct Influence of Surface Water

HAA5 haloacetic acids (5)

hp horsepower

I/I infiltration and inflow

ICID illegal connection/illicit discharge

ID/IQ Indefinite Delivery/Indefinite Quantity

MCAG Marine Corps Activity Guam

MG million gallons

mgd million gallons per day

mg/L milligrams per liter

MOU Memorandum of Understanding

NAVFAC Naval Facilities Engineering Command

Navy United States Navy

NBG Naval Base Guam

NDWWTP Northern District WWTP

NEIC National Enforcement Investigations Center

NGLA Northern Guam Lens Aquifer

NPDES National Pollutant Discharge Elimination System

NRW non-revenue water

O&M operation and maintenance

OEA Office of Economic Adjustment

PACL polyaluminum chloride

PFOA perfluorooctanoic acid

PFOS perfluorooctanesulfonic acid

PLC programmable logic controller

PM preventive maintenance

PMC Performance Management Contract

PMO Program Management Office

PRV pressure-reducing valve

PST primary settling tank

PUC Public Utilities Commission

PVC polyvinyl chloride

RAM Rate Application Model

Report Consulting Engineer's Report

RoD Record of Decision

SCADA supervisory control and data acquisition

SCC system control center

SDC System Development Charge

SDWA Safe Drinking Water Act

SEIS Supplemental Environmental Impact Statement

Series 2025 Bonds System Revenue Bonds, Series 2025

SHPO State Historic Preservation Officer

SRF State Revolving Fund

SS suspended solids

SSES sewer system evaluation study

Stipulated Order Stipulated Order for Preliminary Relief

T&DM Training and Development Manager

TSS total suspended solids

TTHM total trihalomethanes

USEPA United States Environmental Protection Agency

USGS United States Geological Survey

UV ultraviolet

WAS waste activated sludge

WERI Water and Environmental Research Institute

WRMP Water Resources Master Plan

WRMPU Water Resources Master Plan Update

WSA Water Service Area

WTP water treatment plant

WWTP wastewater treatment plant

# **Credit Summary**

Guam Waterworks Authority (GWA or the Authority)<sup>1</sup> provides water service to the entire civilian population of Guam and provides sewer service to a large percentage of Guam's civilian population. There is, however, a significant civilian population that does not have sewer service, particularly in the northern area of the island where many homes rely on individual septic tanks or other on-site disposal systems. In addition, there are currently two major military installations, Andersen Air Force Base and Naval Base Guam, which occupy large areas on the island. Andersen Air Force Base wastewater is discharged into the Authority's System and treated at the Northern District wastewater treatment plant (the "Northern District WWTP"). Naval Base Guam has its own water and wastewater collection system. as well as its own separate wastewater treatment plant. A third military installation, Marine Corps Base Camp Blaz, is currently being constructed. Marines are expected to begin moving into Marine Corps Base Camp Blaz as early as 2026, before it is expected to be completed in 2028. The Authority has constructed the service connection and expects that wastewater collected from Marine Corps Base Camp Blaz, once it is completed, will be discharged into the Authority's System and treated at the Northern District WWTP. The Authority works to provide efficient and reliable service to its customers operating as a self-sufficient utility while meeting all US EPA and Guam Environmental Protection Agency requirements.

The Authority is governed by the Consolidated Commission on Utilities (CCU), a five-member board elected to four-year terms, that makes decisions regarding policies, management, budgeting and financing of the Authority's operations. Certain actions including issuing bonds for financing utility capital projects also require the approval of the Guam Legislature and the Guam Public Utilities Commission (PUC). In addition, ratemaking by the CCU is subject to the approval of the PUC as Guam's regulatory ratemaking body.

The Authority is subject to federal and Guam regulations governing water supply and wastewater treatment. The drinking water standards promulgated in the federal Safe Drinking Water Act (SDWA), as amended, are the primary requirements for water supply. Wastewater treatment and disposal must comply with the water quality standards in the federal Clean Water Act, as amended (CWA).

GWA is subject to rate regulation by the PUC. Most recently, the Authority used revenues generated by PUC-approved rate adjustments pursuant to the FY 2020-2024 rate plan, as amended through the FY 2022 – 2024 Comprehensive Review and Update Process and FY 2024 Annual True-Up, to finance capital improvement program projects while ensuring compliance with the Rate Covenant and (temporary) policy relaxation of a minimum debt service coverage ratio level of 1.3x authorized by the CCU and PUC.<sup>2</sup>

The PUC issued its Rate Decision related to GWA's FY 2025 – 2029 Rate Application and Request for Rate Increases on September 24, 2024. That Rate Decision provided for base charge, lifeline rate and

 $<sup>^{</sup>m 1}$  A Guam public corporation under Chapter 14 of Title 12 of the Guam Code Annotated.

<sup>&</sup>lt;sup>2</sup> See GPUC Rate Decision, Docket 19-08 dated September 22, 2022, Ordering Provision No. 5: "5. For its Five-Year Financial Plan, GWA is temporarily authorized to utilize a debt service coverage ratio of no less than 1.3x.". The PUC's policy does not alter covenanted minimum debt service coverage of 1.25x.

non-lifeline rate increases of 11.50 percent for FY 2025, base charge and non-lifeline rate increases of 10.75 percent in FY 2026, and annual base charge and non-lifeline increases of 7.75 percent in FY 2027 – FY 2029. The FY 2025 rate increase was put into effect in October 2024. Subsequent rate increases are subject to affirmation or adjustment through an annual true-up process. GWA submitted its FY 2026 Annual True-Up filing, which contemplates revenue generation as outlined in the PUC's Rate Decision and implementation of a modified rate design approved by the PUC in March 2024.

GWA's FY 2025 – 2029 rate application included plans to finance capital improvement program encumbrance requirements totaling \$898.75 million (nominal dollars) over the rate application period. These planned encumbrances will provide for compliance with regulatory requirements (including its recently entered Partial Consent Decree with USEPA), advance GWA's Water Loss Control Program, and address other critical System reinvestment needs as identified through GWA's robust Asset Management Program.

GWA has been authorized to use short-term construction financing to award contracts and fund construction costs relating to its capital projects.<sup>3</sup> Short-term construction financing tools may include the issuance of tax-exempt and taxable commercial paper notes secured by separate bank credit facilities, separate bank revolving credit agreements, and similar products.

In response to credit market conditions and changes in projected 0&M expenses relative to that anticipated for the FY 2025 – 2029 rate application, GWA has modified its financial plan within the revenue generation levels anticipated in the PUC's approved Rate Decision. Specifically, due to the relative costs of Tax-Exempt Commercial Paper and supporting Letters of Credit, GWA will proceed with fixed-rate, 30-year revenue bonds to fund \$515 million of project encumbrance requirements. The Series 2025 Bonds will provide \$250 million in project fund proceeds; and a Series 2028 bond issue will yield project fund proceeds of \$265 million.<sup>4</sup> An additional \$150 million of encumbrance requirements will be initially funded through short-term construction financing<sup>5</sup> for which substitute long-term funding will be provided through "take-out" revenue bonds in 2027 and 2029 (both of which are to be sized to provided \$75 million in refunding proceeds).<sup>6</sup> The remaining encumbrance requirements are to be funded through SRF grants, current revenues, System Development Charge revenues and interest earnings. Additionally, GWA anticipates enhancing liquidity by accumulating \$21.5 million in Rate Stabilization Fund reserves while continuing to meet covenanted debt service coverage requirements<sup>7</sup> and targeted operating reserve balances of 120 days of 0&M expenses.

<sup>&</sup>lt;sup>3</sup> Pursuant to Public Law No. 37-103, the Authority is authorized to use short-term financing tools to provide funding for projects in its capital improvement program. The law authorizes GWA to issue \$560 million of aggregate debt, including short-term financing instruments, loans, and revenue bonds. GWA will seek authorization for additional debt issuance as the capital improvement program progresses.

<sup>&</sup>lt;sup>4</sup> Proposed revenue bonds are assumed to be issued at an interest rate of 5.00 – 5.25 percent with a 30-year amortization period, 1.52 percent costs of issuance, and a debt service reserve requirement equal to 6.91 percent and 6.64 percent of bond proceeds, for the Series 2025 and Series 2028 Bonds, respectively. The Series 2025 Bonds include interest only payments for the first five years, while repayment schedules for the Series 2027 Bonds and Series 2028 Bonds assume three years of principal deferral.

<sup>&</sup>lt;sup>5</sup> The borrowing rate for debt issued against the line of credit is assumed to be 4.86 percent and the fee for the unused portion of the line of credit is assumed at 75 basis points.

<sup>&</sup>lt;sup>6</sup> Repayment for the Series 2029 Bonds is expected to begin outside of the forecast period for this report, in FY 2030.

<sup>&</sup>lt;sup>7</sup> These reflect further revisions relative to the FY 2025 – 2029 Decision Order that contemplated gradual increase of debt service coverage to 1.50x and limited Rate Stabilization Fund transfers totaling \$5.0 million.

GWA's FY 2025 – 2029 Capital Improvement Program (CIP) includes requirements for compliance with the 2024 Partial Consent Decree. Culminating an extended negotiation, this decree between GWA and the US EPA was entered on August 9, 2024 in Guam District Court. The Partial Consent Decree requires GWA to make certain improvements primarily related to its wastewater collection system, including pipelines, pump stations, maintenance and other operational program improvements, as well as planning studies for secondary wastewater treatment at the Hagatna Wastewater Treatment Plant. Compliance with this enforcement action, current and pending regulatory requirements, and other System improvement needs has and will continue to drive GWA's reinvestment in its water and wastewater System. Financing this investment has been the centerpiece of GWA's Five-Year Financial Plan and Rate Increase applications for FY 2009- 2013, FY 2014 – 2018, FY 2020 – 2024, and FY 2025 – 2029.

GWA issuance of the Series 2025 Bonds is a critical next step in solidifying the financial foundation and resiliency of the System. As discussed in subsequent sections, the Authority has:

Developed revenue projections for the forecast period based on a scaling of PUC—approved rate design modifications to recover revenues as projected for the FY 2025 – 2029 Five—Year Financial Plan and Rate Increase Request.<sup>11</sup> Rate revenues are forecast conservatively based on historical account growth and per account usage trends and price elasticity of demand factors.

<sup>8</sup> District Court of Guam, United States of America vs. Guam Waterworks Authority, Civil Case No. 24-00004, Order, Frances M. Tydingco-Gatewood, Chief Judge, dated: Aug 09, 2024.

<sup>&</sup>lt;sup>9</sup> For example, GWA's Water Loss Reduction Program that has featured implementation of District Metering.

 $<sup>^{</sup>m 10}$ The Authority's 2009-2013 rate plan included annual rate increases for base, lifeline and non-lifeline water and wastewater rates for Fiscal Years 2009 through 2013. The 2009-2013 rate plan had a compounded rate increase through Fiscal Year 2013 of 47.5%. The 2014-2018 rate plan had a compounded rate increase through Fiscal Year 2018 of 65.1%. The PUC approved and implemented the proposed annual rate increases for Fiscal Years 2014, 2015, 2016 and 2018, and approved and implemented a lower rate increase than the proposed amount in Fiscal Year 2017. For the Five-Year Financial Plan and Rate Increase Application for Fiscal Years 2020-2024, GWA entered into a joint stipulation with a technical consultant engaged by the PUC to review the rate application. This stipulation required GWA to complete 7 analytical studies, develop a Rate Application Model, and participate in a Comprehensive Review and Update process for adjudication of rates for FY 2022 - 2024. The Authority timely submitted the required analytical studies on March 31, 2021 and the Comprehensive Review and Update and updated financial plan on May 1, 2021. Though the 2020-2024 Financial Plan assumed that the proposed rate increase for Fiscal Year 2020 would be in place for the full Fiscal Year, the PUC approved a partial-year implementation of the proposed rate increase for Fiscal Year 2020. Pursuant to the 2020 Order, the Authority increased the base rate and non-lifeline rate for water and wastewater by 5.0% in Fiscal Year 2020 (effective March 1, 2020) and by 5.0% in Fiscal Year 2021 (effective October 1, 2020). The lifeline rate did not change for Fiscal Year 2020 and Fiscal Year 2021. On December 3, 2021, the Authority submitted a modified financial plan requesting an effective rate increase of 8.1% based on a new rate design structure for Fiscal Year 2022 and 6.5% for Fiscal Years 2023 and 2024. The PUC considered the Comprehensive Review and Update and the Authority's requested annual rate increases for Fiscal Years 2022-2024 in September 2022. Given the timing of such action, no rate increase was ordered for Fiscal Year 2022 and consideration of the proposed rate design structure changes was deferred. Pursuant to the 2022 Order, the PUC ordered, among other things, base and non-lifeline rate increases for water and wastewater by 5.5% in Fiscal Year 2023 (effective October 1, 2022) and by 5.5% in Fiscal Year 2024 (effective October 1, 2023), subject to a true-up analysis for Fiscal Year 2024. There were no changes to the lifeline rates. On June 1, 2023, the Authority submitted its true-up submission for the Fiscal Year 2024 rates, requesting a 27.0% rate increase for basic, lifeline and non-lifeline rates, which would enable the Authority to, among other things, fund necessary operation and maintenance expenses, internally finance capital improvements, rebuild a modest level of rate stabilization reserve, and incrementally improve debt service coverage levels. After a review of the Authority's true-up submission and in consultation with the Technical Consultant, the PUC subsequently ordered in September 2023 an overall increase to the base, lifeline and non-lifeline rates by 16.7% in Fiscal Year 2024 (effective October 1, 2023). For GWA's FY 2025 - 2029 Financial Plan and Rate Increase Request (Docket 24-05), the PUC issued a rate decision on September 24. 2024. approving an 11.5% increase in water and wastewater rates effective October 1, 2024. The PUC also approved rate increases of 10.75% for FY2026, and increases of 7.75% in FY 2027, FY 2028, and FY 2029. Lifeline rate increases were approved only for FY2025. Rate increases for FY 2026 - 2029 are subject to annual true-up proceedings.

<sup>&</sup>lt;sup>11</sup> Docket 24-05.

Miscellaneous revenues are forecast based on implementation of cost-of-service based adjustments to related fees and charges; interest revenues assume earnings on unspent debt proceeds through entry into Guaranteed Investment Contracts (as discussed in Section 7).

- Projected operating expenses through detailed line-item analyses to reflect changes in, for example, power purchases (due to GPA's Ukudu plant operations), in Navy water purchases (due to reduced purchase volumes and rates), in chemical expenses (due to analyses of chemical dosage requirements), and in personnel expenses (due to completion of GWA's salary migration program).
- Developed a capital improvement program that reflects sound engineering, cost estimation, and asset management principles. The CIP anticipates wastewater collection system improvements in compliance with the Partial Consent Decree, continued implementation of GWA's Water Loss Control Program, proactive water quality protection measures in response to PFAS and Dieldrin issues, and completion of System Control and Data Acquisition initiatives to enhance operations as well as physical and cyber security, Capital program funding requirements include assumptions of 4 percent per annum general cost escalation.
- Developed a flexible, portfolio management capital financing strategy that enables GWA to adroitly respond to credit market conditions, manage market risks and opportunities, and ensure continuity of capital encumbrance and spending capacity necessary for effective capital program implementation.

The System will continue to face significant challenges over the FY 2025 to FY 2029 forecast period and beyond. Uncertainties prevail with respect to the pace and implications of the ongoing military build-up, revenue performance, future regulatory requirements, asset renewal and replacement needs, O&M expense and capital cost Inflationary pressure, project delivery constraints, and other factors. However, many of these uncertainties are typical of US water and sewer systems, and GWA staff is well-prepared and capable of managing the System.

Notably, potential positive developments that would enhance the System's financial position also characterize the outlook for the System, especially in light of the conservative nature of projection protocols. In particular:

- Service revenue projections are based on assumptions of limited account growth and factors relating to prospective declines in per account consumption. Revenue generation performance will be higher than forecast if continuing post-pandemic recovery is more robust than conservatively forecast, new account growth is higher than projected, or if exhibited water conservation is less pronounced than forecast. These positive outcomes would be readily supportable by sufficient treatment capacity that is available in the Authority's facilities.
- Projections of O&M expenses incorporate conservative assumptions related to inflationary pressures and the availability of critical personnel, services and supplies. They also anticipate

<sup>12</sup> Guam Waterworks Authority, Management's Discussion and Analysis, Years Ended September 30, 2024 and 2023: "GWA remains concerned about regulatory and permitting delays for construction projects, the availability of companies bidding on construction contracts, and the persistent impact of inflationary pressures on construction costs and operational expenses. The impact of actions taken by the Trump Administration (e.g., actions on tariffs, immigration/visas, and federal program austerity) remain unclear but are anticipated to result in increasing costs and reduced federal funding. These anticipated effects, along with the uncertainty in financial markets, may pose additional challenges to GWA's capital financing efforts." (pp. 13-14)

support for GWA's ambitious capital program. Accordingly, forecasted O&M expenses could ultimately be lower than forecast if inflation rates are lower than anticipated and/or capital program implementation is less robust than planned.

CIP expenditures are forecast to average approximately \$180 million per annum in constant dollar terms from FY 2025 to FY 2029, or about 3x the level of capital project expenditures in the most recent 5-year period, FY 2020 through FY 2024 that averaged \$61.2 million. To the extent that prospective capital project spending lags behind that forecasted, capital project encumbrance requirements and related financing pressures may be mitigated.

The projections of revenues, operating expenses, and capital encumbrances presented herein demonstrate the feasibility of the Series 2025 Bonds. With continued implementation of revenue increases delineated in the PUC-approved <sup>13</sup> FY 2025 – 2029 Financial Plan, the Authority is projected:

- To fund all Operations and Maintenance expenses notwithstanding inflationary pressures and new operating requirements.
- To fund the entirety of GWA's \$898.75 million (nominal) CIP with federal grants totaling \$102.49 million, issuance of short-term construction financing instruments totaling \$150 million (for which substitute funding is to be provided through separate revenue bond issues<sup>14</sup>), \$250 million in project fund proceeds of the planned Series 2025 bond issue and \$265 million in project fund proceeds from a planned Series 2028 bond issue, \$88.0 million in internal (current revenue) funding, \$3.75 million in SDC revenues, and \$40.6 million of interest earnings.<sup>15</sup>
- To maintain adequate liquidity with combined targeted operating reserves and fund balances of no less than 120 days of annual operating expenses and accumulation of \$21.5 million in Rate Stabilization Funds.
- To exceed Indenture covenanted 1.25x debt service coverage.

Based on the assumptions, projections, and conclusions of this Consultant's Feasibility Study (the "Feasibility Study"), the Authority will be able to meet its debt obligations and further reinforce a resilient and sustainable foundation for efficient water and wastewater service delivery throughout the forecast period.

\_

<sup>13</sup> Subject to PUC adjustment through annual true-up proceedings.

<sup>14</sup> Sometimes referred to as "take-out" long-term revenue bonds that are used to provide substitute encumbrance capacity and pay outstanding debt balances of short-term construction financing instruments at the end of the two-year terms in 2027 and 2029.

<sup>&</sup>lt;sup>15</sup> With an unused balance of \$1.1 million at the close of FY 2029.

# 1.0 Introduction

# 1.1 Purpose

This report has been developed in collaboration with the Guam Waterworks Authority (GWA, Authority) that is responsible for operating, maintaining, and upgrading the System. <sup>16</sup> GWA has requested that Galardi Rothstein Group (GRG) prepare this report to evaluate the financial feasibility of its planned Series 2025 Water and Wastewater System Revenue Bonds, Series 2025 (Series 2025 Bonds). The proceeds of these bonds will be used to finance a portion of GWA's planned capital program. GWA will primarily employ debt issues and current revenues (including future rate increase service revenues) to finance future capital projects as delineated in Section 7.

This Report presents a summary description of GWA's organization, water and wastewater system (GWA System), its Capital Improvement Program, and our independent projections of financial performance, and evaluation of the financial feasibility of the Series 2025 bonds. As such, the Report includes:

- Descriptions of the Authority's organization, water and wastewater system and an independent review of the conditions of GWA System facilities
- A review of regulatory and legal issues that present risks that could have a material impact on GWA's financial performance
- A summary of GWA capital project planning and major project categories, a forecast of capital program encumbrance requirements by project category and forecast year, and a listing of expected sources of capital project encumbrance funding by forecast year
- A review of recent System financial performance and a detailed projection of financial operating results that demonstrate the financial feasibility of the Series 2025 bonds

# 1.2 Scope

This report summarizes the results of reviews of GWA's revenue performance, operating expenses, and capital project plans conducted by GRG, Duenas, Camacho and Associates, Inc (DCA), <sup>17</sup> and Authority staff. GWA has developed its plans with the objective of meeting the requirements of the federal Safe Drinking Water and Clean Water Acts and related regulations and laws specific to Guam

GRG has worked with the Authority since 2015 to update and modify the Authority's strategic financial plans based on detailed analyses of customer billing data, budgeted and actual 0&M expenses, capital project expenditure data, and evolving projections of future capital encumbrance requirements. For

1

<sup>16</sup> The services were performed in accordance with an Engagement Letter between GWA and GRG dated January 8, 2025. We have relied on selected information provided by GWA and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information. This Report summarizes the results of our studies and analyses up to the date of this Report. Prospective purchasers of the Series 2025 Bonds should not rely upon the information contained in this Report for a current description of any matters set forth herein as of any date subsequent to the date of this Report. Changing conditions occurring or becoming known after such date could affect the material presented herein to the extent of such changes.

 $<sup>^{</sup>m 17}$  See Section 1.3 Firm Qualifications for a discussion of DCA's qualifications and scope pf services.

this report, GRG and Authority staff developed projections based on relevant revenue and O&M expense data available as of March 31, 2025. These projections consider:

- Residential and non-residential customer account trends and billable volume (metered water use, adjusted wastewater flow) patterns
- Exhibited O&M expense patterns and inflation rates by cost category
- Detailed review and updating of planned capital encumbrance schedules based on asset condition assessments, regulatory compliance requirements, operational levels of service and recent construction project cost escalation experience

GRG has updated the Authority's strategic financial planning model to project all System cash flows. The update incorporates scheduled debt service for the Authority's Series 2025 Bonds based on credit market conditions as of May 1, 2025. The resulting financial plan, which is reported on herein, was developed to ensure compliance with covenants of the Authority's bond indenture.

# 1.3 Firm Qualifications

GRG<sup>18</sup> produced this report for GWA,<sup>19</sup> which relies both on detailed information provided by the Authority and a review of GWA's systems and capital program provided by the engineering firm Duenas Camacho & Associates (DCA). GRG provides strategic financial and management consulting services to government agencies, public-private partnerships, and special districts. GRG has prepared strategic financial plans, prepared Municipal Advisor Feasibility Study reports, conducted cost-of-service rate studies, and participated in Consent Decree negotiations related to financial capabilities for numerous utilities throughout North America including Akron, OH; Metropolitan Sewerage District of Greater Cincinnati, OH; Guam Waterworks Authority, GU; Halifax Regional Water Commission, NS, Honolulu, HI; Northeast Ohio Regional Sewer District (Cleveland, OH); Salem, OR; St. Louis Metropolitan Sewerage District, MO; Tucson, AZ; and Winnipeg, MB. GRG Principals have been involved in the development of water and wastewater industry manuals of practice for financial planning and rate setting and authored numerous articles and presentations for industry professional societies and research organizations including the American Water Works Association, National Association of Clean Water Agencies (NACWA), Water Environment Federation (WEF), and Water Research Foundation (WRF).

For GWA, GRG developed financial capability assessments to support negotiation of a Partial Consent Decree with USEPA related to wastewater system improvements (entered in 2024). GRG developed financial projections for GWA's Series 2016 and Series 2020 (A & B) revenue bond issues. GRG supported development of GWA's FY 2020 – 2024 Financial Plan and Rate Application (and related Stipulation). GRG served as Program Manager for conduct of seven (7) analytical studies required for the stipulated Comprehensive Review and Update process for determination of FY 2022 – FY 2024 rates. GRG provided financial projections for GWA's 2018 Interim Water Resources Master Plan (IWRMP) and pending update. And, most recently, GRG supported development of GWA's

<sup>&</sup>lt;sup>18</sup> GRG is the partnering of Galardi Consulting, LLC, established in 1996 and a certified Woman-Owned and Emerging Small Business Enterprise in the State of Oregon; the Rothstein Group, LLC established in 2007 and located in Montreat NC; and Stanger Consulting, LLC established in 2012 and located in the State of Utah.

Eric Rothstein and Cody Stanger are Municipal Advisors registered with the Municipal Securities Rulemaking Board (MSRB). However, GWA has not designated Galardi Rothstein Group as its independent registered municipal advisor ("IRMA") for purposes of SEC Rule 15Ba1-1(d)(3)(vi) (the "IRMA exemption").

FY 2025 – 2029 Financial Plan and Rate Increase Application, and its FY 2026 Annual True-Up filing (including development of revised water and sewer rates<sup>20</sup> based on the PUC's March 28, 2024 Order regarding GWA's amended petition to approve a new rate design structure).

Duenas, Camacho and Associates, Inc (DCA) has provided a review of GWA's systems and capital program. This review includes an assessment of both water and wastewater infrastructure, interviews with GWA engineering and compliance personnel, a desktop review of available technical documentation and site visits to a limited number of locations. DCA is a locally based civil/structural engineering firm with over 60 technical employees. DCA has been serving Guam and the region for over 40 years. Mr. Kenneth M. Rekdahl, PE is the principal engineer who assisted in the preparation of this report. Mr. Rekdahl has over 20 years of experience working with GWA and served as the engineer of record for over \$200 million dollars of capital improvements for GWA over the last 10 years. Mr. Rekdahl is a licensed professional engineer on Guam with a Master's Degree in Civil Engineering from the University of Southern California.

# 1.4 Purpose of the Series 2025 Bonds

The proceeds of the Series 2025 Bonds will be used to fund capital improvements to meet certain ongoing regulatory requirements (discussed further in this report) and other capital improvements necessary to safely and efficiently operate and maintain the GWA System. Series 2025 Bonds are expected to yield \$250 million in project proceeds as discussed in Section 7.

# 1.5 Overview of Developments Since 2020

Over the last five years, GWA has continued its focus on System improvements to ensure regulatory compliance, address water loss, and enhance service levels. GWA has successfully managed a number of significant challenges and built infrastructure and financial strength and resiliency.<sup>21</sup> Particularly noteworthy developments<sup>22</sup> that have significant financial implications for GWA include:

# 1.5.1 Settlement of Meter Failure Litigation / Meter Replacements

Water meters supplied to GWA beginning in 2012 experienced unacceptable failure rates and resultant loss of revenues during much of the period between 2012 and 2020. In August 2020, GWA filed a complaint in the Superior Court of Guam<sup>23</sup> seeking recovery of related damages. In October 2020, the suit and GWA's complaint were removed to the U.S. District Court for Guam.<sup>24</sup> GWA entered into a settlement agreement and release that provided for the receipt of a confidential consideration and settlement amount. During settlement, all parties agreed that no admission of liability on behalf of any party would be construed. GWA has replaced all defective meters, enhanced its meter testing and replacement programs, and is currently in the process of upgrading to Advance Metering Infrastructure.

<sup>&</sup>lt;sup>20</sup> See Appendix I.

<sup>21</sup> GWA has also vastly improved its collection and analyses of system performance data to make informed decisions on how to direct and manage resources.

<sup>22</sup> Additional detail provided in later sections of the report.

<sup>&</sup>lt;sup>23</sup> Superior Court of Guam, Civil Case No. CV 0605-2.

<sup>&</sup>lt;sup>24</sup> US District Court for Guam Civil Case No. 1:20-CV00032.

## 1.5.2 FY 2020 – 24 Rate Adjudication: Comprehensive Review and Update Process

For the Five-Year Financial Plan and Rate Increase Application for Fiscal Years 2020-2024, GWA entered into a stipulation requiring GWA to complete 7 analytical studies, develop a Rate Application Model, and participate in a Comprehensive Review and Update process for adjudication of rates for FY 2022 – 2024. The Authority submitted the required analytical studies on March 31, 2021, and the Comprehensive Review and Update and updated financial plan on May 1, 2021.

Though the 2020-2024 Financial Plan assumed that the proposed rate increase for Fiscal Year 2020 would be in place for the full Fiscal Year, the PUC approved a partial-year implementation of the proposed rate increase for Fiscal Year 2020. Pursuant to the 2020 Order, the Authority increased the base rate and non-lifeline rate for water and wastewater by 5.0% in Fiscal Year 2020 (effective March 1, 2020) and by 5.0% in Fiscal Year 2021 (effective October 1, 2020). The lifeline rate did not change for Fiscal Year 2020 and Fiscal Year 2021.

On December 3, 2021, the Authority submitted a modified financial plan requesting an effective rate increase of 8.1% based on a new rate design structure for Fiscal Year 2022 and 6.5% per year for Fiscal Years 2023 and 2024. The PUC considered the Comprehensive Review and Update and the Authority's requested annual rate increases for Fiscal Years 2022-2024 in September 2022. Given the timing of such action, no rate increase was ordered for Fiscal Year 2022 and consideration of the proposed rate design structure changes was deferred.

Pursuant to its 2022 Order, the PUC ordered, among other things, base and non-lifeline rate increases for water and wastewater by 5.5% in Fiscal Year 2023 (effective October 1, 2022) and by 5.5% in Fiscal Year 2024 (effective October 1, 2023), subject to a true-up analysis for Fiscal Year 2024. There were no changes to the lifeline rates. In September 2023, the PUC ordered an increase to the base, lifeline and non-lifeline rates of 16.7% in Fiscal Year 2024 (effective October 1, 2023).

# 1.5.3 **2023 Typhoon Mawar**

On May 24, 2023, Typhoon Mawar struck Guam with winds over 140 mph. Guam Waterworks Authority began preparations on May 19, 2023, and maintained operations throughout the storm, with 20% of customers retaining water service and production never falling below 50%. By June 23, 2023, full water service was restored to all 19 municipalities. The Authority sustained approximately \$4.1 million in facility damages and incurred \$2.5 million in recovery costs, and is working with insurers and FEMA for reimbursements, receiving a \$1 million advance insurance payment in February 2024, \$660,000 towards its business interruption claim in April 2025, and a notice of award from Guam Homeland Security Office for a \$1 million reimbursement of expenses incurred toward Category B Emergency Protective Measures. GWA continues to work with FEMA and its insurance company for resolution of outstanding claims for reimbursement.

#### 1.5.4 2024 Partial Consent Decree

GWA successfully completed protracted negotiations with USEPA regarding alleged violations of the federal Clean Water Act. GWA's wastewater systems are addressed in a Partial Consent Decree

<sup>&</sup>lt;sup>25</sup> The Authority's water production rate was never below 50% of normal. By June 4, 2023 (day 11) production was at 75% of normal with service restored to 62% of customers by June 6, 2023 (day 13). By June 17, 2023 (day 24) production rates were at 100% of normal with service restored to over 92% of customers. On June 23, 2023 (day 29), the Authority announced full water service restoration to all 19 municipalities.

between GWA and the US EPA entered in Guam District Court on August 9, 2024. <sup>26</sup> The Partial Consent Decree requires GWA to make certain improvements primarily related to its wastewater collection system, including pipelines, pump stations, maintenance and other operational program improvements, as well as planning studies for secondary wastewater treatment at the Hagatna Wastewater Treatment Plant.

## 1.5.5 Water Loss Control - DMA Implementation

The Water Loss Control Analytical Study<sup>27</sup> recommended full implementation of 36 District Metered Areas throughout the Authority's distribution system with a comprehensive permanent leak detection program. The Authority has established monitoring in 21 of 36 DMAs and anticipates completion of all DMAs within the next few years with execution of needed capital projects to install new metering infrastructure. Data gathered indicates that the majority of leaks detected and repaired are in smaller diameter service laterals that are beyond their useful service life. The Authority has accordingly focused capital replacement for water lines to align with the findings of the Water Loss Control Program. These initiatives aim to reduce reliance on Navy water purchases and improve system efficiency.

## 1.5.6 Core Tech Litigation

GWA is involved in litigation related to certificates of title for property upon which GWA's Northern District Wastewater Treatment Plant (NDWWTP) is located. Court records show the private party, Core Tech International Corporation (Core Tech) is seeking the enjoyment, use, and occupancy of the property and compensation from GWA for inverse condemnation, as well as damages for trespass and encroachment. Although GWA believes the matters will be resolved in its favor, GWA cannot predict the outcome of the cases before the Guam Supreme Court or the Guam Superior Court. In the event that the Guam Supreme Court and the Guam Superior Court enter judgments against GWA, the resulting liability could have a material and adverse impact on GWA's financial position. GWA intends to vigorously defend themselves against Core Tech's claims, and intends to vigorously pursue the interlocutory appeal and the quiet title action.

# 1.5.7 Completion of 2011 Court Order Requirements

GWA has been subject to a 2011 Court Order related to water system improvements, funding for which was a principal consideration in the approval of prior five-year financial plans. GWA has completed or is continuously complying with 91 of 93 items (97.8%) of the 2011 Court Order requirements. Repair, rehabilitation or replacement of certain water reservoirs are the only remaining items and are anticipated to be completed by December 31, 2025, which will result in full compliance with the 2011 Court Order.

<sup>26</sup> District Court of Guam, United States of America vs. Guam Waterworks Authority, Civil Case No. 24-00004, Order, Frances M. Tydingco-Gatewood, Chief Judge, dated: Aug 09, 2024.

<sup>&</sup>lt;sup>27</sup> One of the required analytical studies completed in 2021 to support the Comprehensive Review and Update.

## 1.5.8 **Emerging Contaminants**

Perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) contamination<sup>28</sup> have been detected in Guam's aquifer at isolated locations. GWA has proactively addressed regulatory guidelines by shutting down impacted wells and providing additional treatment for the emerging PFOS and PFOA issues in cooperation with Guam Environmental Protection Agency (GEPA) and USEPA.<sup>29</sup> New regulations on PFAS compounds will require the Authority to design and construct new treatment systems that have not been previously needed for SDWA compliance. GWA is in the process of finalizing the procurement of the design services for these systems and will move quickly to initiate construction of the treatment systems as part of its FY 2025 – 2029 Capital Improvement Program.

Additionally, the GEPA has advised that they will be promulgating local drinking water regulations for a pesticide compound known as dieldrin which is currently unregulated at the federal level. GWA has contracted for the required design and construction of treatment systems to remove the contaminants at affected well sites.

## 1.5.9 **FY 2025 – 29 Rate Adjudication**

On March 8, 2024, GWA submitted a draft petition to the PUC for approval of the Five-Year Financial Plan and rate relief for FY 2025 through FY 2029. The FY 2025-2029 Five-Year Financial Plan, GWA Docket 24-05, was officially filed on June 6, 2024. The PUC issued a rate decision on September 24, 2024, approving an 11.5% increase in water and wastewater rates effective October 1, 2024. The PUC also approved rate increases of 10.75% for FY2026, and increases of 7.75% in FY 2027, FY 2028, and FY 2029. Lifeline rate increases were approved only for FY2025. Rate increases for FY 2026 - 2029 are subject to annual true-up proceedings. No public opposition to the increases was voiced during hearings.

# 1.5.10 Short-Term Financing

Pursuant to Public Law No. 37-103, the Authority is authorized to use short-term financing instruments to provide funding for projects in its capital improvement program, including the issuance of tax-exempt and taxable commercial paper notes secured by separate bank credit facilities, separate bank revolving credit agreements, and similar products. The law authorizes GWA to issue up to \$360 million in tax-exempt or taxable commercial paper notes, as well as up to \$400 million in commercial bank loans (including but not limited to revolving notes secured by bank credit facilities) as long as the aggregate principal amount of the short-term financing instruments and all other revenue bonds and loans does not exceed \$560 million.

Commercial paper notes may be payable from revenues and secured only on a subordinate basis to the payment of debt service on GWA's Series 2025 Bonds and other senior lien bonds. Credit facility

<sup>&</sup>lt;sup>28</sup> PFAS (Per- and polyfluoroalkyl substances) are a group of thousands of human-made chemicals used in various products like firefighting foams, food packaging, and clothing. Some common PFAS compounds include PFOA and PFOS.

<sup>&</sup>lt;sup>29</sup> GWA is a class member and claimant in the National Water Provider Settlement class action suit for PFAS. In 2024, GWA filed timely claims for both the 3M and Dupont settlements. The final stages of review and award allocation for the 3M and Dupont settlements are expected in calendar year 2025; however, information on when payment awards will be issued remain unknown. GWA will consider whether to file claims as a class member for any future water provider settlements as part of this legal proceeding and expects to file claims under two separate settlements in 2025 for Tyco and BASF.

obligations may be payable from revenues and secured on a parity basis with or on a subordinate basis to the payment of debt service on GWA's Series 2025 Bonds and other senior lien bonds.

GWA anticipates refunding all outstanding notes or other obligations associated with short-term financing instruments with proceeds of the Series 2027 Bonds and the Series 2029 Bonds.<sup>30</sup>

\_\_\_\_\_

In addition to these notable developments over the last five years, it is important to recognize that the context of GWA's system reinvestment program is significantly impacted by the ongoing Military Realignment and the related One Guam Initiative as outlined below.

# 1.6 Military Realignment

Guam is currently the home of three military bases: Naval Base Guam (NBG) on the mid-western coast of Guam and Andersen Air Force Base (AAFB) on the northeastern coast of Guam from Yigo to Ritidian Point and a new Marine Corp base located along Route 3 in Yigo. Construction on the new Marine Corp Base is expected to peak between 2025 and 2030. The relocation of the Marines from Okinawa to Guam is expected to begin in the summer of 2025.

The Department of Defense (DoD) completed a Supplementary Environmental Impact Statement ("2015 SEIS") and released a Record of Decision for the military realignment in 2015. Based on the 2015 SEIS and Record of Decision, the DoD planned to relocate approximately 5,000 military personnel and 1,300 dependents to Guam over a 12-year period, which was expected to increase the military population on Guam by approximately 50% over levels at that time. The population increase was expected to peak at 9,721 people in calendar year 2023 and gradually reach a steady state of 7,411 people by calendar year 2028. The 2015 SEIS and Record of Decision has not been updated since their initial publication.

The expected population growth set forth in the 2015 SEIS poses significant implications for Guam's infrastructure, including the Authority's System. Pursuant to the 2015 SEIS, the DoD estimates that the military realignment will result in increased wastewater generation of approximately 1.2 mgd and increased potable water demand of approximately 1.7 mgd. To address the increased demands on the System, the DoD and the Authority have (i) completed (in 2022) upgrades to the Northern District WWTP to secondary treatment and installed the related outfall diffuser; (ii) refurbished the interceptor sewer that runs from the Andersen Air Force Base to the Northern District WWTP (completed in 2020), and (iii) expanded and rehabilitated the Northern Guam Lens Aquifer Monitoring System including in the northwest field area of the Andersen Air Force Base (completed in 2023). 31

In addition, the Missile Defense Agency (MDA), a research, development and acquisition agency within the DoD, together with the U.S. Department of the Army, the Navy, the Air Force and the FAA as cooperating agencies, is currently preparing an environmental impact statement to evaluate the potential environmental impacts and potential mitigation of deploying and operating an Enhanced Integrated Air and Missile Defense System to defend Guam against advanced missile threats. Similarly, the Air Force, together with the Navy as a cooperating agency, has issued a notice of intent

<sup>&</sup>lt;sup>30</sup> Series 2027 Bonds are anticipated to be issued in June 2027; repayment for the Series 2029 Bonds is expected to begin outside of the forecast period for this report, in FY 2030.

<sup>31</sup> Also, in 2016, the Navy's Tumon Maui well (1.3-mgd capacity) was transferred to GWA who has operated the well to Navy standards successfully since taking over operation.

to prepare an EIS to assess the potential environmental impacts associated with a proposed project to bed down and support the mission of 12 Republic of Singapore Air Force F-15 fighter aircraft and construct new infrastructure upgrades adjacent to the northwest corner of the airfield and within the munition's storage area at Andersen Air Force Base. The impact of these potential projects on the Authority's System are currently unknown.

Except as described above, the Authority does not currently expect the U.S. military build-up to materially affect the Authority's future capital requirements and has not included any capital improvements relating to the U.S. military build-up in its capital planning. Based on the memorandum of understanding entered into in 2010 and updated in 2016 by the Authority and the DoD, the Authority expects that the DoD will provide appropriate and adequate funding sources for all direct and indirect impacts to the Authority's infrastructure resulting from any build-up in order to avoid rate pressure on the Authority's civilian customers. Although the 2016 MOU does not bind either party to any financial commitments, the 2016 MOU does reflect that, among other things, the parties will evaluate and fairly distribute agreed-upon costs associated with meeting DoD requirements.

#### 1.7 One Guam Initiative

The framework for the cooperation on water utilities between the Navy and GWA began with the 2010 Memorandum of Understanding (MOU), which intended to provide the mechanism by which utility services could be improved to address impacts from the planned military buildup. Significantly, it specifically called for cooperation between the Navy, GWA and their respective leadership in ensuring the "long term, sustainable management of the Northern Guam Lens Aquifer (NGLA)." This led to the 2016 One-Guam Water MOU which expanded the cooperation between Navy and GWA and specifically called for improving the aquifer observation well system by expanding and rehabilitating it. This MOU features a cost-sharing agreement for data collection, data evaluation, and maintaining the monitoring wells. Seven new monitoring wells were developed on both Navy and AAFB property, and 12 existing wells have been rehabilitated. The One-Guam Water MOU also called for sharing access and responsibilities for maintenance of the system

The 2016 agreement also called for a "proof-of-concept" project to demonstrate GWA's ability to operate the Navy-owned Tumon-Maui Well water production facility to the Navy's reliability, safety and security requirements. GWA successfully completed that proof-of-concept and has been operating the facility under license from the Navy for nearly 10 years. GWA has completed or is in the process of conducting additional inter-operability projects with the Navy, including system inter-ties at jointly sited water reservoirs, and supply exchange points to facilitate major maintenance operations.

Most recently, GWA and the Navy are pursuing joint evaluation of PFAS treatment technologies for implementation in advance of new federal safe drinking water regulations. Additionally, agreements have been put in place for data sharing and cybersecurity coordination, and joint hydraulic modelling and master planning coordination are under consideration.

Overall, the One Guam initiative has strengthened communication and collaboration between GWA and DoD, particularly Joint Region Marianas and NAVFAC. Communication between GWA's General Manager and NAVFAC's One Guam Coordinator is frequent and collaborative.

# 1.8 Report Organization

This Report contains the following sections:

- Credit Summary: Provides an overview of initiatives that the Authority has implemented to establish a financially stable structure for future system development and service delivery. Prevailing risks are also highlighted as well as potential positive developments that could enhance projected financial performance.
- Section 1 Introduction: Outlines the purpose and scope of the report, sources and uses of Series 2025 proceeds, provides Consultant firm qualifications, offers a high-level review of developments since 2020, discusses the ongoing military build-up and One-Guam initiatives, and outlines the report organization.
- Section 2 Guam Waterworks Authority: Provides an overview of the governance of the Authority,
   FY 2024 operational summary, organizational structure, staffing and key operating programs.
- Section 3 Water System: Describes GWA's water system including its water supply sources, water treatment plants, storage and pumping facilities, transmission and distribution networks, and water metering systems. This section also notes the permitting status of the water system and offers high-level assessments of asset conditions.
- Section 4 Wastewater System: Describes the current wastewater system service area, collection and transmission system, pump stations, and individual wastewater treatment plants. This section also notes the permitting status of the wastewater system and offers high-level assessments of asset condition.
- Section 5 Regulatory and Legal Issues: Provides a review of regulatory and legal issues including
  the recently entered Partial Consent Decree, source water quality issues related to PFAS and
  Dieldrin, and atypical legal issues facing the Authority.
- Section 6 Capital Improvement Program: Provides an overview of CIP planning process and key considerations, describes GWA's water and wastewater system capital project categories, and offers a summary of projected capital program encumbrances and sources of funding for the FY 2025 2029 forecast period.
- Section 7 Financial Performance: This section summarizes historical financial performance, service rate adjustments and customer bill comparisons, and projected System financial performance for the period FY 2025 through FY 2029.
- Section 8 Findings: Summarizes findings and conclusions of the report, particularly with respect to financial feasibility of Series 2025 Bonds.

#### Appendices:

- Proposed FY 2026 Rates schedule of specific rates and charges contained in FY 2026 annual true-up fling reflecting revised rate design as addressed in PUC Docket No.: 19-08 Amended Petition to Approve New Rate Design Order dated March 28, 2024.
- o **Bill Impact Schedule** schedule of bill impacts of implementation of Proposed FY 2026 rates under revised rate design as approved in PUC Docket No.: 19-08.

# 2.0 Guam Waterworks Authority

#### 2.1 Introduction

The Guam Waterworks Authority (GWA) provides water and wastewater services to the majority of Guam's civilian population, as well as some military facilities. This section reviews GWA's governance and organizational structure, provides descriptions of GWA Operating Divisions, staffing levels and key operating programs.

Operational details from fiscal year (FY) 2024 are presented in Table 2-1. In FY 2024, GWA had 43,615 water customers, 31,080 wastewater customers and operating revenues of \$128,387,137.

Table 2-1. FY 2024 Operational Overview	
Description	Valueª
Average number of water customers	43,615
Average number of wastewater customers	31,080
Annual water sales (million gallons (MG))	5,119
Annual wastewater collection (MG)	3,806
Operating revenues <sup>b</sup>	\$128,387,137
Gross investment in utility planta	\$1,264,240,090
Net utility plant investment <sup>a</sup>	\$811,400,744
Total equity <sup>a</sup>	\$340,667,682
Net current assets <sup>a</sup>	\$124,904,105
a. As per GWA	
b. Excludes SDC revenues	

#### 2.2 GWA Governance

GWA is a public corporation, governed by the Consolidated Commission on Utilities (CCU). The CCU also provides oversight of the Guam Power Authority (GPA). In 2002, the CCU was formed as an elected body with decision-making authority over GWA operations, including the development of operating budgets, capital plans and overall management strategy and direction. Four-year staggered positions enable the CCU to have continuity across elections for new incoming board members. The CCU is committed to advancing GWA to be a well-run utility focused on organizational improvement that best serves the interests of its customers and ratepayers. Since its inception, the CCU has supported steady improvements to the utility's infrastructure, management, fiscal responsibility, and operations. The CCU has consistently approved GWA's submission of five-year financial plan and rate increase applications to the PUC that provide for effective System operations and financing of planned capital improvements. The CCU has demonstrated a commitment to GWA's financial strength and integrity, in

part through adoption of policies that prescribe financial planning to ensure minimum debt service coverage above bond indenture requirements and sufficient operating reserves.

In addition to CCU approval, the issuance of bonds for capital improvement projects or for refinancing purposes requires legislative approval and the approval of the Guam Public Utilities Commission (PUC) and the Guam Economic Development Authority (GEDA). The PUC must also approve all GWA rate adjustments.

# 2.3 Operating Divisions

The GWA organization is led by the General Manager, Legal Counsel and Chief Financial Officer who each report directly to the CCU. Figure 2-1 provides the GWA's current organizational chart.

## 2.3.1 General Manager

The Office of the General Manager oversees all aspects of the Authority's administrative, business, operational, engineering and compliance activities. The Office of the General Manager is staffed by senior administrative assistants, management analysts and communications personnel. The executive management team, comprised of the Chief Financial Officer, Legal Counsel, Public Outreach Coordinator and four Assistant General Managers for: (1) Operations, (2) Compliance & Safety, (3) Engineering, and (4) Administration/Support, report to the General Manager. The Internal Audit function reports administratively to the General Manager as well.

#### 2.3.2 Communications

Communications is responsible for sharing accurate, timely information about GWA's services, infrastructure, and initiatives with ratepayers, stakeholders, and the public. The unit leads GWA's public relations efforts through media outreach, public education, and community engagement. It also monitors political, social, and economic trends to help shape communication strategies and support informed decision-making.

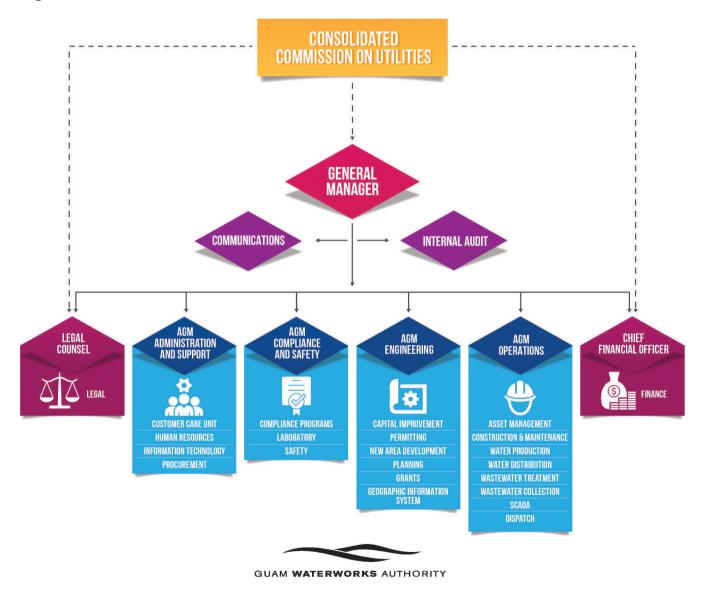
#### 2.3.3 Internal Audit

The Internal Audit Division reports administratively to the General Manager, and functionally to both the General Manager and the Audit Committee of the CCU. The Internal Audit Division is responsible for resolving Office of Public Accountability audit findings in conjunction with the Chief Financial Officer. The Division also has the responsibility for planning and executing all internal audit activities, fraud/waste/abuse investigations as assigned by the Audit Committee or resulting from "hot-line" reports.

# 2.3.4 **Legal**

GWA's internal Legal Counsel has the responsibility over all legal matters of the Authority as prescribed in statute. This includes providing guidance to management and the CCU, representing the Authority in all matters of administrative law (rate regulation, personnel matters) and regulatory enforcement. Procurement review and litigation remain statutory functions of the Office of the Attorney General of Guam, but have typically been delegated by the Attorney General to GWA's Legal Counsel.

Figure 2-1. GWA Organizational Chart



#### 2.3.5 Finance

The Finance Division ensures financial stability by managing budgeting, accounting, and debt financing to maintain sufficient cash flow and funding for operations and capital projects. It ensures compliance by adhering to financial regulations, supporting external audits, and preparing accurate financial reports. The division also oversees payroll, ratepayer billing and payment processing, and rate applications to the Guam PUC.

#### 2.3.6 Administrative Services Division

The Administrative Services Division provides essential internal and external services that support the day-to-day functioning of the organization. The following Sections play key roles in maintaining effective operations and delivering reliable services to the public.

#### 2.3.6.1. Customer Service

The Customer Service Section is the primary point of contact for GWA ratepayers. Customer service representatives operate at three locations—Fadian, Upper Tumon, and Julale—and also assist customers through online service channels. The Customer Service Section handles service requests including connections, disconnections, payment arrangements, and account troubleshooting. It includes the Collections Unit that works with customers to resolve outstanding balances, and the Meter Reader Unit that ensures timely and accurate meter reading for billing. The Customer Service Section plays a vital role in maintaining customer satisfaction and ensuring accurate and responsive service delivery.

#### 2.3.6.2. Human Resources (HR)

The Human Resources Section oversees personnel-related functions including recruitment, employee relations, training and development, benefits administration, and performance management. HR ensures compliance with applicable labor laws and personnel policies and works to support a productive and professional workforce. The Human Resources Section also manages classification, compensation, and personnel transactions, and serves as a resource for both employees and supervisors.

#### 2.3.6.3. Information Technology (IT)

The Information Technology Section is responsible for maintaining and supporting GWA's technology infrastructure. This includes managing the network, cybersecurity, enterprise applications, system integrations, and user support. The Information Technology Section ensures that business systems, including billing, service tracking, and internal communications operate securely and efficiently. IT also supports automation and digital services that improve employee productivity and enhance customer interactions.

#### 2.3.6.4. Procurement

The Procurement Section manages the sourcing and acquisition of goods, services, and equipment in full compliance with Guam procurement laws and GWA's internal policies. Its core responsibilities include preparing and issuing solicitations, coordinating with vendors, conducting bid evaluations, and overseeing contract execution. The Procurement Section ensures that all purchasing activities are fair, transparent, and well-documented, while maintaining efficiency and fiscal responsibility. By supporting all Divisions in securing the resources they need, Procurement plays a key role in keeping GWA's operations running smoothly and effectively.

## 2.3.7 Compliance and Safety

The Compliance & Safety Division is comprised of three distinct functional Sections:

#### 2.3.7.1. Compliance Programs

Compliance Programs primary focus is on monitoring the Authority's systems and customer connections to ensure the quality and safety of drinking water provided to the people of Guam as well as to protect the wastewater collection and treatments from harmful customer discharges that affect GWA's ability to meet permit requirements. This includes the Cross Connection Control Program and backflow prevention for water system protection in coordination with the regulations of the U.S. Environmental Protection Agency (USEPA), Safe Drinking Water Act (SDWA), Guam EPA (GEPA), and Guam Primary Drinking Water Regulations (GPDWR). It also includes Source Control Programs for wastewater system protection from Fats, Oils and Grease (FOG) and industrial discharges requiring pretreatment.

#### 2.3.7.2. Laboratory

GWA maintains a certified analytical laboratory which is responsible for sampling and analysis to ensure compliance with the SDWA, as well as the Clean Water Act (CWA), and Clean Air Act (CAA), which also involves monitoring of FOG (Fats, Oils, and Grease), bacteria and industrial pretreatment into wastewater discharges.

#### 2.3.7.3. Safety

Safety conducts operational safety inspections and provides training to promote a safe and compliant working environment across all operations.

## 2.3.8 Engineering

The Engineering Division<sup>32</sup> provides planning and engineering services and support to the operational sections of the Authority, oversees the development and implementation of GWA's program of capital improvements for water and wastewater systems, and processes permits and utility verification requests for new development and construction for all customers of the Authority. The Division's Right of Way (ROW) unit oversees property acquisition, easements, and access rights needed for infrastructure projects such as water and sewer lines and related infrastructure. It maintains accurate records of agreements, negotiations, and property information; manages on-island water line and sewer line easements including quarterly reporting of ground maintenance; and negotiates with landowners, government or federal agencies for easements or property acquisition. Responsibilities include coordinating with project managers, engineers, legal teams, and property owners; and preparing response memos for upper management.

<sup>32</sup> GWA has managed to maintain staffing levels in the Engineering Division although there has been a loss of senior engineering staff in the post-pandemic period due primarily to retirements and departures to the private sector and federal government. In anticipation of the great number of projects and significant funding levels anticipated for CIP projects, the Engineering Division has stepped up recruitment, entered into an agreement with the University of Guam to provide a "pipeline" for graduating engineers into GWA, and expanded its use of Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts to consulting engineering firms for critical CIP initiatives, such as Partial Consent Decree-related projects and water line replacements to support the Authority's Water Loss Control Program.

The Engineering Division is divided into the following sections:

#### 2.3.8.1. Capital Improvement – Water

The CIP Water Section is responsible for planning, program management, design, construction management and construction of capital projects needed to maintain, improve, and rehabilitate the potable water system serving the island community of Guam. These projects include water storage reservoirs, wells, treatment plants, pump stations, and distribution and transmission piping systems. The CIP Water Section is also responsible to provide assistance to Operations to collect and analyze system data and investigate and resolve system issues.

#### 2.3.8.2. Capital Improvement – Wastewater

The CIP Wastewater Section is responsible for planning, program management, design, construction management and construction of capital projects needed to maintain, improve, and rehabilitate the wastewater system serving the island of Guam. These projects include gravity sewer collection systems, sewer pumps stations and force mains, and wastewater treatment facilities. The CIP Wastewater Section is also responsible for assisting Operations in collecting and analyzing system data and investigating and resolving system issues.

#### 2.3.8.3. Capital Improvement – Support

The CIP Support Section is responsible for planning, program management, design, construction management and construction of capital projects needed to maintain, improve, and rehabilitate the SCADA, controls, electrical systems, and other systems and facilities supporting the water and wastewater systems serving Guam. These projects include repairs and improvements to warehouse, laboratory and administration buildings, electrical control and instrumentation and SCADA systems. The CIP Support Section is also responsible for assisting Operations in collecting and analyzing system data and investigating and resolving system issues.

#### 2.3.8.4. Permitting and New Area Development

The Permits Section is responsible for ensuring necessary upgrades to the existing water and wastewater systems are made to accommodate proposals for new development, new service connections, or service demand increases. The unit works closely with customers and other GWA representatives to also ensure the related planning, design, and construction work meets GWA standards, rules, and regulations. Various tasks of the Permits Section include (but are not limited to): review of new development applications; processing building permit and occupancy applications; processing acceptance of private utilities, performing water and wastewater modeling; providing utility verifications and clearances; performing coordination and inspection of hydrant flow tests, new service connections, meter relocations, line extensions and other system modifications; and confirming proper completion of all GWA road repairs.

#### 2.3.8.5. Planning and Grants

The Planning/Grants Section is mainly responsible for securing, managing, and reporting on grant funding for GWA. Other duties include supporting water and wastewater operations through infrastructure assessments, supporting Operations and Compliance and Safety Divisions with FOG program management and community outreach programs, land use planning and zoning applications reviews as required for land entitlement processes, and coordinating the procurement of Capital Improvement Projects with the Engineering Division.

#### 2.3.8.6. Geographical Information Systems (GIS)

The GIS Section handles spatial data collection, analysis, mapping, and field verification. The team typically supports planning, infrastructure, environmental, utility, or emergency management operations by providing accurate and actionable geospatial information.

#### 2.3.9 Operations and Maintenance

The Operations Division provides essential water and wastewater system operation, maintenance and emergency services 24-hours each day, every day. The following Sections play key roles in the operations of the systems to provide reliable utility services to the public.

#### 2.3.9.1. Asset Management

The Asset Management Section is responsible for all preventive maintenance (PM) and corrective maintenance (CM) for the Authority's over 200 facilities island-wide. The Section maintains the asset registry and inventory, generates PM and CM schedules and work orders, operates and maintains the Computerized Maintenance Management System (CMMS) and mobile workforce solution for Operations staff. The Asset Management Section is also responsible for generating and updating specific asset management plans, tracking maintenance costs and material/equipment inventories, and developing analyses and business cases for operational capital repairs and replacements.

#### 2.3.9.2. Construction and Maintenance

The Construction and Maintenance Section is responsible for two primary sets of duties. The first involves support services to all operation Sections which includes 1) vehicle/heavy equipment needs, 2) instrumentation and electrical equipment repair and maintenance and 3) pump and motor maintenance and repair for all operation facilities. The second set of primary duties involve limited construction or rehabilitation work which would not rise to a level requiring a contracted capital improvement project executed by the Engineering Division. Examples of construction activities include but are not limited to: pavement/subbase restoration work after a water or wastewater pipe repair occurs, general construction improvement at an operations facility, and water distribution or wastewater collection infrastructure expansion.

#### 2.3.9.3. Water Production

The Water Production Section is responsible for the operation, maintenance and repair of all of the Authority's water sources, which is comprised of 120 deep production wells, two spring sources, one surface (river) water treatment plant, and one "Maui" (horizontal) well operated under license from the U.S. Navy. This Section includes separate units for deep well O&M, chlorination systems, and surface and springs water treatment.

#### 2.3.9.4. Water Distribution

The Water Distribution Section manages all operational aspects of transmission and delivery of treated potable water to the Authority's customers. This includes separate units for storage reservoir and water booster pump station monitoring, pressure line maintenance and repair (leak/main break response), leak detection and water loss control, and large meter maintenance.

#### 2.3.9.5. Wastewater Collection

The Wastewater Collection Section is responsible for the operation and maintenance of all sewer gravity mains and interceptors, sewer manholes, lift (pump) stations and ejectors, and force main piping. The Wastewater Collection Section maintains separate units for collection system and lift

station operation/monitoring, central wastewater facility maintenance and repair, sewer line cleaning/CCTV/emergency spill response.

#### 2.3.9.6. Wastewater Treatment

The Wastewater Treatment Section manages the operation of the Authority's six (6) wastewater treatment plants (WWTPs). The Wastewater Treatment Section is organized regionally and by WWTP, with a Southern Superintendent overseeing three smaller plants (Agat-Santa Rita, Umatac-Merizo, and Inarajan WWTPs), a Central Superintendent overseeing two plants (Hagatna and Pago-Socio WWTPs), and a Northern Superintendent overseeing GWA's largest plant serving multiple military installations and most of the island's population (Northern District WWTP).

## 2.3.9.7. System Control Center/Dispatch

Core to the operation of the water and wastewater systems is the System Control Center (SCC) located at the Authority's headquarters. This 24/7 operation is responsible for coordination and control of the water and wastewater systems, and serves as the command center for System Control and Data Acquisition (SCADA). The Authority is in the process of expanding its SCADA capabilities to all operations facilities. This Section also includes the public facing Emergency Dispatch office which handles operational service issues from customers of the Authority and dispatches crews to assess and resolve them.

## 2.4 Staffing Levels, Hiring and Unionization

GWA currently has a staff of 372 full time equivalent (FTE) employees (as of May 2025). The FTE budget is proposed to increase by \$2,151,416 in FY 2026. For comparison, in 2015 the number of filled positions was 318 FTEs with authorization for 344. Staffing levels have increased by approximately 17 percent over 2015 levels.

With the Partial Consent Decree now in place and new regulations for emerging contaminants like PFAS coming into effect, there are increased program demands on the Source Control Program and Compliance Laboratory, as well as permit activity from new development related to the military buildup. GWA anticipates recruiting additional staff to address these needs. The challenge will be to find qualified staff and licensed engineers, particularly with the competition from the military realignment in progress.

The Authority continues to expand on its previously implemented coordination and interaction between engineering and operations. In addition to collaboration on design review, integration of operational preferences and operability improvements in facility design and construction, the Authority is moving forward with integrating engineering and operations staff into operational modelling, enhanced GIS technology deployment and SCADA implementation. Management has also directed that Engineering staff be permanently assigned to Operations Sections (water and wastewater, with SCADA soon to follow) to provide embedded engineering support and expertise for operational issues.

Approximately 13% of GWA staff are members of the Guam Federation of Teachers (GFT), a collective bargaining organization that offers advisory benefits such as legal services at a reduced cost. In 2019, GFT negotiated a collective bargaining agreement with GWA. Management is currently in negotiations with GFT on new contract terms, which are expected to be ratified by the CCU in CY 2025.

# 2.5 Training and Certifications

GWA is transitioning to a web-based training solution to broaden access to learning and professional development across the organization. This shift builds on the foundation laid by the Master Training Plan and aligns with GWA's commitment to equipping employees with the knowledge, skills, and abilities needed to support the Authority's mission.

Recent training efforts demonstrate both the scale and diversity of training underway. In FY2024, GWA delivered training across a wide range of technical, safety, compliance, and professional development topics, including online courses through the KnowBe4 platform, in-person safety awareness training, cybersecurity, financial compliance, and water/wastewater-specific modules. Hundreds of employees participated, contributing to thousands of training hours across water, wastewater, and support Sections.

Future offerings will continue to expand based on needs assessments and will emphasize career advancement, certification preparation, succession planning, and knowledge transfer—ensuring GWA retains institutional knowledge while building the capacity of its workforce.

GWA employees currently hold 116 USEPA certifications for water and wastewater operations. From a historical perspective, the number of certifications reported at the end of FY 2015 was 89,127 at the end of 2012, and 52 or less prior to 2010. Despite recent losses in certified operators to the federal government, GWA's level of GEPA certifications has greatly improved since 2015 and more than doubled since 2010. The improvements have been a result of the increased emphasis on employee development and the increase in staff training. In 2014, and for the last several years, GWA has worked with the Rural Community Assistance Corporation, GEPA and the American Water Works Association (AWWA) Western Pacific Subsection to encourage and motivate GWA staff to obtain advanced certifications, to provide operator training and more frequent, computer-based certification testing, and streamline Operator Certificate issuance processes.

# 2.6 Major Operating Programs

## 2.6.1 Asset Management

GWA adopted a formal Asset Management Policy by CCU Resolution 47-FY 2018 in August 2018. Important components of the asset management system are the over-arching Strategic Asset Management Plan (SAMP) and facility specific Asset Management Plans (AMP) that are in progress. GWA is following ISO Standard 55001 when developing the asset management system.

Using the CMMS, GWA has been issuing and tracking preventive maintenance (PM), corrective maintenance (CM) and line repair work orders since 2016. With upgrades of GWA's enterprise management system in 2021, a more robust maintenance management system was implemented along with expansion of mobile workforce capabilities for enhanced deployment of asset management tools across the Operations Division. GWA is focusing its efforts on preventive maintenance planning to ensure that new assets will remain in good condition for their expected lifespan. This approach has been proven over the past 10 years through implementation at three newly upgraded wastewater treatment plants and newly built and/or refurbished water storage tanks.

## 2.6.2 Water Loss Control Program

Like many other water systems, GWA has historically experienced and continues to experience significant water system losses because of system leaks, unauthorized water use, improper data handling, and inaccurate metering. The Water Loss Control Analytical Study, one of the required analytical studies completed in 2021 to support the Comprehensive Review and Update recommended full implementation of 36 District Metered Areas throughout the Authority's distribution system with a comprehensive permanent leak detection program. In July 2021, the Authority engaged a contractor for the island-wide implementation of District Metered Areas and technical assistance for standing up the recommended leak detection campaigns and loss control program. The Authority anticipates completion of all 36 District Metered Areas by 2028. Data gathered from this program indicates that the majority of leaks detected and repaired are in smaller diameter service laterals that are beyond their useful service life. The Authority has accordingly focused capital replacement for water lines to align with the findings of the Water Loss Control Program. In conjunction with the PUC's Order in the FY 2025 - 2029 Rate Decision, a plan of action for priority projects was submitted on January 3, 2025, and GWA is authorized to proceed with related contracts without additional PUC contract review. These initiatives aim to reduce reliance on costly Navy water purchases and improve system efficiency.

## 2.6.3 Compliance Programs

#### 2.6.3.1. Cross Connection Control Program

GWA's Cross Connection Control Program provides standards for the installation, maintenance and annual reporting/inspection of backflow prevention assemblies at customer connections in accordance with GWA's service rules and regulations. GWA's maintains nationally qualified and certified staff to manage the program and oversee registration and certification of private backflow prevention assembly inspectors/testers who provide annual inspection/reporting on customer equipment. The program is also applied to all of GWA owned-facilities. Ultimately the program is intended to ensure that the public water distribution system is protected from any risks associated with potential sources of cross contamination, such as irrigation systems, swimming pools, fire protection systems and industrial users.

### 2.6.3.2. Source Control Program

GWA maintains a USEPA approved Source Control Program for wastewater discharges. This unit also coordinates closely with the USEPA and the US Department of Justice (USDoJ) to report incidents and provide updates related to the 2011 Court Order, 2024 Partial Consent Decree, and other regulatory compliance matters. The Source Control Program among other things:

- Enables GWA to reduce the amount of inflow into the sewer system that takes away capacity from the collection system and treatment plants
- Reduces sewer clogging and pumping and treatment equipment fouling caused by fats, oils, and grease by preventing its discharge into the sewer system
- Eliminates sanitary system overflows due to flow restrictions caused by excessive grease build-up in the collection system
- Prevents the introduction of harmful products into the sewer system that create hazards or interfere or harm the biological processes at the treatment plants

 Empowers GWA to fine or disconnect violators of the restrictions and controls provided by the source control programs as authorized by GAR28, when amended

## 2.6.3.3. Fats, Oils and Grease (FOG)

GWA has implemented a FOG program designed and written to minimize the amount of fats, oils, and grease that enters the sewer collection system, primarily from food service establishments (such as restaurants, commercial kitchens, and food-processing customers). The new FOG program includes a permit requirement, permit processing, and inspections to ensure that food service establishments all have grease removal devices that are properly sized and maintained. Violations will result in fines, and repeat offenders or negligent customers may be disconnected as provided for by current law and augmented in proposed amendments to GWA's administrative rules. GWA has entered into a cooperative agreement with the Guam Environmental Protection Agency to provide joint-enforcement of FOG program provisions until the proposed amendments are codified.

A large part of this FOG program is the ability to process and treat FOG. Until 2023 there was no system or process on Guam that was capable of handling FOG disposal. Through proactive action, GWA constructed a new autothermal aerobic thermophilic digestion (ATAD) system as part of its solids handling processes at the NDWWTP. This digestion process is capable of treating FOG. In order to treat FOG from commercial haulers servicing food service establishments, this new system requires a receiving station. GWA has completed the design and construction documents for this new receiving station and the project is pending bid tender issuance.

#### 2.6.3.4. Pre-treatment

As part of the 2024 Partial Consent Decree with USEPA, GWA will implement and enforce an Industrial Pretreatment Program that complies with 40 C.F.R. Part 403. This pre-treatment program will prevent the introduction into the waste stream of hazardous materials, and chemicals harmful to the aquatic environment or to the biological environment in the sewage treatment plants. The pre-treatment program will follow EPA regulations and requirements established by the Clean Water Act and NPDES permit requirements. The program is in final draft form and will be submitted to EPA for review and approval this summer.

## 2.6.4 Cyber Security

The Authority relies on a complex technology environment to conduct its operations and is subject to multiple cybersecurity threats including, but not limited to, hacking, phishing, viruses, malware, and other attacks on its computing, operational, and communications networks (collectively, "Systems Technology"). As a custodian of personal, private, and sensitive information, the Authority may be the target of cybersecurity incidents that could adversely affect its Systems Technology and require significant response actions to mitigate their consequences.

Cybersecurity incidents may arise from unintentional events or from deliberate attacks by unauthorized individuals or entities seeking to misappropriate assets or information, or to disrupt Authority operations. Such breaches could damage the Authority's Systems Technology, materially disrupt its finances and operations, expose the Authority to litigation or regulatory action, and result in substantial financial costs related to mitigation, remediation, and legal proceedings.

To address these risks, the Authority, in collaboration with GPA, has adopted cybersecurity policies and protocols based on the National Institute of Standards and Technology Special Publication 800 series

guidelines. The Authority's cybersecurity program includes a cybersecurity plan approved by the U.S. Department of Energy, comprehensive system testing, vulnerability assessments, adoption of business continuity and disaster recovery plans, and refreshed incident response plans for all departments and divisions.

The Authority conducts annual external network security and vulnerability assessments covering information technology general controls, operational technology networks, site physical security, and penetration testing. Assessments were most recently conducted in March 2025 and will be conducted annually moving forward. The Authority continues to implement critical redundancy solutions across its IT and OT networks, perform regular updates, manage end-of-support devices, and enhance its cybersecurity standard operating procedures.

Further, the Authority has a mature cybersecurity awareness training program for employees and participates in multiple tabletop exercises to validate its incident response capabilities. Through these measures, the Authority aims to reduce its cybersecurity risk exposure; however, no assurance can be given that such measures will prevent all cybersecurity incidents or materially mitigate their effects. A significant cybersecurity event could materially and adversely affect the Authority's financial condition, operations, or reputation.

The Government coordinates cybersecurity readiness and response efforts across agencies, with support from the Guam Homeland Security Advisor and the Mariana Regional Fusion Center. These entities help facilitate territory-wide cybersecurity programs in collaboration with agency IT teams, the National Governors Association, and various federal partners. The Government continues to strengthen its cyber capabilities through interagency coordination, information sharing, and exercises with local and national stakeholders. These partnerships further strengthen the Authority's cybersecurity preparedness.

Despite these proactive efforts, the Authority cannot guarantee that it will not experience a cybersecurity event that could materially impact its operations or financial position.

# **3.0 Water System**

## 3.1 Water Sources and Treatment

Water sources on the island of Guam include groundwater, surface water, and spring water. All three resources are replenished by the island's significant rainfall that ranges between 80 and 110 inches per year. The source of all fresh water on Guam is rainfall, whether as runoff and stored in reservoirs in southern Guam, or as recharge in the groundwater aquifer of northern Guam. Since the source of all freshwater resources on Guam is direct rainfall, Guam's water resources are vulnerable to changes in precipitation. In addition to water produced at its own facilities from these three water sources, GWA purchases water from the U.S. Navy.

Figure 3-1 shows the relative size of the GWA water sources. Groundwater supplies about 90 percent of the drinking water for Guam's residents and visitors. Each source is discussed further below.

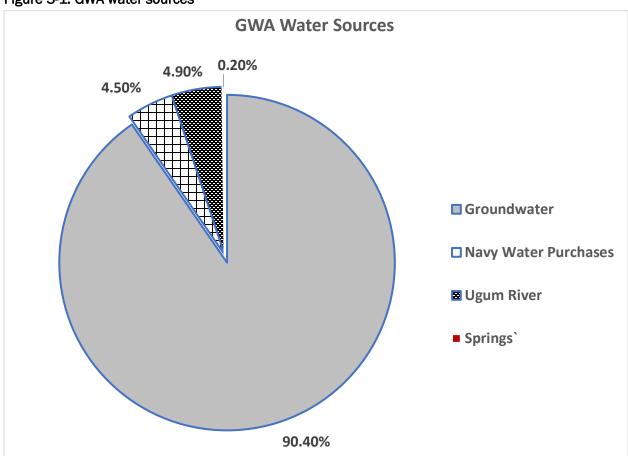


Figure 3-1. GWA water sources

## 3.1.1 Groundwater

The main groundwater resource is located under the northern part of the island. The permeable limestone geology in the northern part of the island, composed primarily of uplifted fractured limestone that has been substantially altered through dissolution, allows relatively rapid recharge of the groundwater aquifer from precipitation. The rainfall percolates through the strata and forms a freshwater "lens" that floats at approximately sea level above deeper, higher-density brackish and salt water. Because of the heavy rainfall and rapid percolation, the Barrett Consulting Group and J.F. Mink estimated in 1991 that the freshwater lens under the northern part of the island can provide a sustainable water supply of up to 80 million gallons per day (mgd). This sustainable capacity has been supported by other researchers as well. The Water and Environmental Research Institute (WERI) of Guam released the 2019 Technical Report No. 170 defining and evaluating production capacity for the Northern Guam Lens Aguifer. This report states that the aguifer provided a sustainable water supply of up to 89 million gallons per day (mgd). As of April 30, 2025, GWA pumps approximately 37 mgd of groundwater, or about 46 percent, of the sustainable yield. On average, the United States Navy (Navy) and Air Force pumped 3.0 mgd of groundwater, and the Guam International Airport another 0.2 mgd, which indicates that total current groundwater extraction is approximately 40.2 mgd, or about 50 percent of the sustainable yield.

For 2025 it was estimated in the GWA WRMPU that GWA groundwater requirements would increase to approximately 39.1 mgd average day demand, conservatively assuming the same rate of Non-Revenue Water (NRW) as experienced in 2017. The DoD projected an additional need for 1.7 mgd to support the military realignment above the 3.0 mgd used currently. This would bring the total groundwater demand to 43.8 mgd or 55 percent of sustainable yield in 2025. This is still well below the 80 mgd sustainable yield and assumes there is no improvement in water loss from the current NRW rates. NRW is discussed in more detail in Section 3.4.

The U.S. Geological Survey (USGS) completed a study in December 2013 of Guam groundwater resources to determine the impacts of climate scenarios and recharge on the sustainable yield, and also to assess the impacts of increased pumping to accommodate the proposed military realignment (discussed in Section 1.6). The results indicate that the groundwater resources can be used to meet the anticipated future needs; however, the groundwater resources will need to be managed during an extended drought to maintain acceptable salinity levels.

Groundwater wells supply approximately 90 percent of GWA's water supply. GWA owns 120 wells, of which 110 are currently operable. The well capacity varies and ranges from less than 100 gallons per minute (gpm) to over 500 gpm. The number actually in service varies from day to day to meet system needs. For the month of April 2025, of the 120 wells, 94 were operating to meet system demands, one was in standby mode, 15 were secured and two were secured pending the addition of treatment for PFOS/PFOA contamination and eight were out of commission.

The total permitted well capacity is 40.1 mgd. GWA has re-constructed five of their existing wells, has completed the design to rehabilitate four additional wells and has plans to drill three new wells over the next two to three years. Pilot holes and capacity testing have been completed for the three new wells.

GWA has prepared contract documents for these three wells. It is anticipated that construction of these wells will begin in the last quarter of 2025. The increased availability of these wells will supplement

the current production capacity and allow for maintenance on other wells and provide operational flexibility and redundancy, which will strengthen the water system.

Well water is chlorinated prior to distribution. Several wells are also equipped with a granular activated carbon (GAC) system to provide additional treatment for localized contamination issues. Ninety-four percent of wells (excluding out of commission wells) are equipped with emergency generators to ensure continued supply should a power failure occur.

GWA manages wellhead protection through its wellhead protection plan established in 2015 and works to ensure that no adverse development occurs within the protection zones to the extent possible through the building permit approval process.

#### 3.1.1.1. Miscellaneous Groundwater Wells

GWA currently operates the Navy owned Tumon Maui well under a lease agreement with the Navy. The water supplied is pumped into the GWA distribution system. The Tumon Maui well has a design flow rate of 1.3 mgd and typically supplies on average 1.0 mgd into the GWA water system in Upper Tumon. The Tumon Maui well also includes a GAC treatment system.

GWA also operates the water system for the Guam International Airport Authority (GIAA). GIAA has three wells with two currently operational, and a 1.5-MG storage tank. The wells are turned on and off as needed to keep the storage tank within the required levels since the well pumping capacity exceeds the airport demand. The GIAA wells all have some level of contamination and include carbon filter treatment before the water is pumped into the storage tanks. The average demand of the GIAA system is approximately 0.2 mgd.

## 3.1.2 **Springs**

GWA also owns five springs located in the southern and central areas of the island.

Only one spring (Santa Rita) has been consistently used, producing approximately 0.1 mgd or approximately 0.2 percent of the total GWA water supply. The spring water is chlorinated prior to distribution. Upgrades to increase capacity at this spring site are underway. The construction documents will be prepared to construct a new cutoff wall that will be used to intercept more spring water. This upgrade will reduce GWA's use of U.S. Navy water.

GWA has a project planned (design phase has been substantially completed) to rehabilitate the currently inactive Asan Springs, built in 1929. This project has been delayed due to property issues with the US Department of the Interior National Park Service, who owns land on which part of the reservoir is located. Based on historical data, Asan Springs should produce approximately 0.4 mgd. This upgrade may also reduce GWA's use of the U.S. Navy water in the Asan-Piti area.

#### 3.1.3 Surface Water

Surface water resources are available in the southern portion of the island. GWA treats surface water collected from the Ugum River at the Ugum Surface Water Treatment Plant (the Ugum WTP). In addition, GWA purchases surface water from the Navy that has been treated at its Fena WTP. These surface water sources compose 10.4 percent of the total GWA supply.

#### 3.1.3.1. Ugum Water Treatment Plant

The Ugum WTP is a major source of water supply for the southern portion of the island and operates 24 hours per day, seven days per week with a regular staff of seven employees. The

Ugum WTP supplies approximately 5 percent of the total GWA supply. The Ugum WTP was upgraded from a traditional rapid-media plant (conventional filtration) and retrofitted with a microfiltration system in 2010. The Ugum WTP has operated solely on the Memcor CS Submerged Membrane System since March 2011.

The treatment processes include:

- Raw water screening and pumping
- Pre-disinfection with chlorine
- Coagulation, flocculation, settling, and clarifying
- Microfiltration using membranes
- Sludge management, including a thickening system and centrifuge
- Final treatment with chlorine
- Storage in a 2.0-MG reservoir
- Supervisory control and data acquisition (SCADA) to bring information to the operations staff and to collect and retain plant operating data

The plant is also equipped with:

- A backup generator to provide power if the electric utility system fails
- Wash water recycling processes
- A neutralization basin to adjust the pH of the membrane filter wash water before it is released into the Ugum River as an NPDES permitted discharge

Improvements to the Ugum WTP have been completed in the last year (2024). This includes complete replacement of the 15-year-old membrane system, new raw water pumps, thickener assembly, valves and process pumping systems. A new 2.0 MG concrete tank is under construction and is expected to be complete by the last quarter of 2025.

The Ugum WTP design flow rate is 4 mgd and current production is approximately 2.2 mgd, so there is additional capacity at the plant to serve future demands in the Southern Water System. There are some bottlenecks in the process that need to be addressed to consistently achieve 4 mgd capacity as discussed in the WRMPU. The Ugum River supply analysis included in the WRMPU also indicates that the Ugum River could have difficulty supplying 2 mgd or more during the dry season, particularly during periods of drought; however, alternate sources such as the Talofofo River may be considered to supplement the Ugum River flow. The WRMPU recommends additional study of the Southern Water System to supply the water necessary to serve customer demands in the south. Increase in the Ugum WTP capacity will reduce GWA's use of U.S. Navy water.

## 3.1.3.2. Navy Water

The Navy collects surface water in the Fena Valley Lake Reservoir. The reservoir has a 6-square-mile watershed and a capacity to hold up to 7,050 acre-feet (2.3 billion gallons) of water. The Navy also obtains spring water from Almagosa and Bona Springs. The combined spring production ranges from 0.17 mgd up to 2 mgd; however, these springs have fluctuating water quality and are not used when the water quality is low and so are not a continuous source. The surface and spring

water are treated at the Fena WTP, which is owned by the Navy and operated by a private contractor.

The Fena WTP treatment processes include:

- Coagulation using alum, lime, and polymer
- Flocculation using conventional clarifier and/or ballasted flocculation chambers
- Sedimentation
- Dual-media filtration
- Ultraviolet (UV) disinfection
- Post-chlorination using sodium hypochlorite system with calcium hypochlorite back-up system
- Fluoridation
- Aeration that occurs within the clear well (to drive off disinfection by-products (DBPs))
- Scale and corrosion control using sodium hydroxide or sodium polyphosphate

The Fena WTP is capable of producing a daily maximum flow of up to 13.5 mgd and an average flow of 10.5 mgd under poor water quality conditions, as shown in Table 3-2. Additional flow rate data for Fena WTP is also provided in Table 3-2. The current treated water production rate at Fena WTP is approximately 5.1 mgd, which is less than 50 percent of the wet weather design flow rate, so there is spare capacity at the plant if needed.

Table 3-2. Fena WTP Flow Rates	
Flow Rate Parameter	Flow Rate (mgd)
Maximum daily	13.5
Minimum daily	5.0
Nominal daily average (wet season)	10.5
Nominal daily average (dry season)	12.5

A 1982 Memorandum of Agreement allows GWA to purchase up to 4.39 mgd (1,602 MG annually) of water from the Navy. The Memorandum of Agreement has expired although both parties continue to operate cooperatively under its provisions and continue to work on an updated utility services agreement. GWA projects declining annual purchases from the Navy from 528 MG to 481 MG to meet its demands in FY 2026 through FY 2029.

GWA's dependence on Navy water has decreased significantly since 2011 and in recent years has been about 50 percent of the 2011 usage. Usage has been relatively stable since 2015, however, GWA intends to continue to reduce the purchase of Navy water by repairing leaks, changing sources and addressing localized pressure problems within the GWA System. In the last two years the PUC has established criteria to reduce Navy water purchases given recent variations in Navy water rates resulting from their movement towards quarterly rate adjustments to achieve annual cost recovery. GWA's capital improvements program has accounted for these criteria.

## 3.1.4 Water Sources and Treatment - Facility Conditions

### 3.1.4.1. Wells

GWA groundwater production system includes 120 deep wells for water extraction from the aquifer. Approximately 35 of these wells were constructed prior to 1970 and have been in service for 50 years or more. There has been rehabilitation to five wells and reconstruction of 5 other wells over the past 6 years. Further rehabilitation is needed and planned for. The current state of the GWA well field (120 wells) is considered to be fair.

#### 3.1.4.2. Ugum WTP

The Ugum WTP was constructed in 1994, upgraded to membrane filtration in 2005 and recently rehabilitated in 2025. The Ugum WTP is now capable of treating water when the river supply water is at or below 300 NTU. River turbidly of 300 NTU happens after large rainfall events and usually last for 3-6 hours after the rain event has passed. The high sediment load in the water also causes sediment buildup at the intake that requires extra maintenance to keep the intake clear. Improvements to control sediment buildup around the intake are underway. This improvement includes maintenance dredging of the river catchment area. Future upgrades to the Ugum WTP river intake structure are included in the five-year CIP. The current state of the Ugum WTP is considered to be good; the Ugum WTP is in full compliance with the Safe Drinking Water Act (SDWA).

#### 3.1.4.3. Springs

The Asan and Santa Rita Spring sources are still in GWA's spring source inventory. The Asan Spring has been offline, and the Santa Rita Spring remains in operation. The Santa Rita Spring is considered to be in good condition.

## 3.2 Water Distribution Systems

GWA's water system includes an extensive network of transmission and distribution pipelines, Booster Pump Stations (BPS), and reservoirs.<sup>33</sup> Figures 3-2 and 3-3 show key elements of the GWA water system in the northern and southern portions of the island, respectively.

<sup>33</sup> The Authority's water system does not include any documented/known lead pipes. The Authority completed the USEPArequired Lead Service Line Inventory in accordance with federal timelines.

Figure 3-2. GWA water system: North

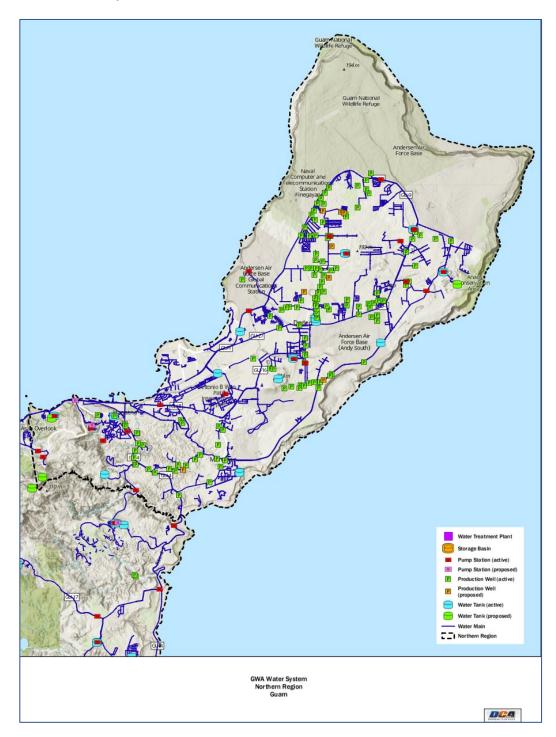
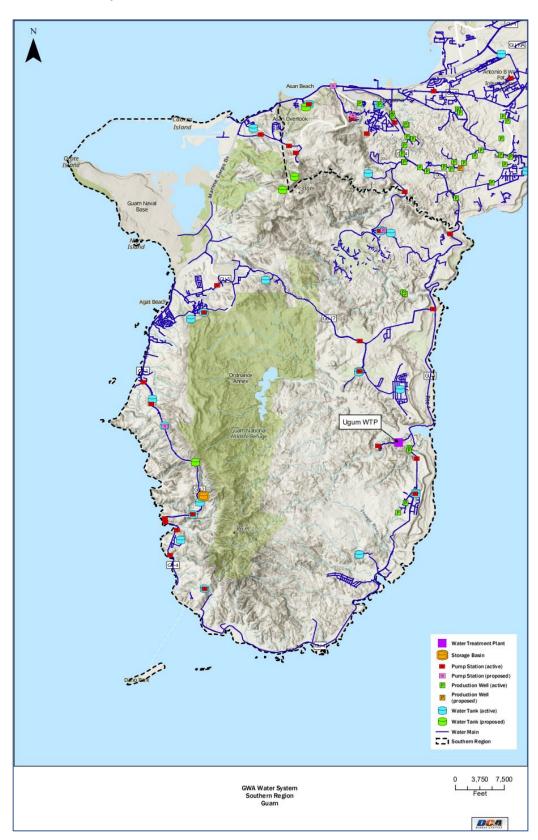


Figure 3-3. GWA water system: South



## 3.2.1 Transmission and Distribution System

#### 3.2.1.1. Waterlines

The Government of Guam, and subsequently GWA, inherited circa 1950's Navy infrastructure and the existing piping network comprises approximately 586 miles of ductile iron, polyvinyl chloride (PVC), cast iron, asbestos cement (AC), and galvanized steel pipe. As noted in the WRMPU, approximately eighty miles of piping is documented to have been installed prior to 1980, approximately 246 miles of piping was installed between 1980 and 2011, and approximately 260 miles of the piping have no documented installation date but a significant portion is expected to be older piping installed during the Navy period of control.

The WRMPU also notes that up to 15 miles of the total is constructed of 2-inch-diameter or smaller pipe (up to 7.5 miles of which may be constructed with galvanized steel) that is believed to be a significant, but not the only, source of system leaks. This is because of the poor corrosion resistance of buried steel pipe, in many cases shallow installation depth, and generally poor construction practices.

In general, the water systems on Guam are not separated into transmission and distribution pipelines. In most cases, production wells feed directly into distribution after disinfection. These water systems are combined transmission and distribution networks with Booster Pump Stations (BPS) and reservoirs interspersed throughout. GWA's long-term plan, wherever practical, is to eventually convey unchlorinated raw water directly to storage reservoirs, disinfect at the storage reservoirs, and then distribute the finished water to customers.

The GWA system is currently divided into 47 Water Service Areas (WSA) with pressure-reducing valves (PRV), choked valves or BPS regulating and separating the WSAs. The WSAs have been established over time and resulted in some areas being supplied with service pressures outside the target range, some too high and some too low. GWA is currently implementing a Pressure Zone Realignment program that will transition from the historic WSAs to a true pressure zone layout that will improve service pressures throughout the island and should also contribute to reduced water loss by minimizing background leaks caused by overpressure in certain WSAs.

Leaks, theft and misreadings from service connections and distribution pipelines continue to be a significant source of Non-Revenue Water (NRW), as discussed in Section 3.4. Over the past several years GWA has made leak repair a priority, reducing the length of time it takes for leaks to be repaired and reducing daily leak repair work order backlog by more than 90 percent. Recently, some significant sources of loss from leaks have been discovered and repaired, which have had a notable and measurable effect on system pressure.

The current state of the water distribution should be evaluated in two parts: lines larger than 2 inches and lines 2 inches and smaller. Observation and repair records has verified that the 2 inch and smaller lines are prone to failure. GWA operations frequently respond to repairs and replacement of these lines. The large lines also experience leaks and breaks, but not nearly at the frequency of the smaller lines.

The state of these 2 inches and smaller lines is considered poor. The large waterlines may be considered fair.

#### 3.2.1.2. Booster Pump Stations (BPS)

GWA has 30 BPS in service in the water distribution system. Nine of the 30 active BPS are equipped with working emergency generators to ensure continued operation during power failures. Recent upgrades to six of the pump stations have been done over the past 10 years. The upgraded southern pump stations allow GWA to bypass water tanks for routine inspection and maintenance.

The current state of the booster pump stations is considered to be good.

#### 3.2.1.3. Reservoirs

GWA reservoirs are predominantly ground-level tanks. New tanks are concrete, older tanks are of steel construction. There are no steel-elevated tanks still in service. GWA's policy is to use concrete ground storage tanks or booster pumping stations in the future to reduce the O&M costs associated with the elevated steel tanks. GWA has thirty-three (33) reservoirs in current inventory, and three (3) new concrete reservoirs under construction. Reservoirs have historically been constructed of steel. All these steel tanks have been assessed and many have been rehabilitated. This rehabilitation has extended the useful life of these steel tanks in service. GWA will keep these tanks in service. Otherwise, new facilities will be concrete. Twenty-six (26) reservoirs have been repaired or replaced since 2013, and nine are currently under construction or rehabilitation as of April 30,2025, with one tank pending plans for rehabilitation:

- Total Storage Tanks: 36 (45.1 MG)
- Total number of Concrete Tanks: 12 (15.5 MG)
- Total number of Concrete Tanks under construction: 3 (7 MG)
- Total number of refurbished Steel Tanks: 16 (18.6 MG)
- Total number of remaining Steel Tanks under rehab: 5 (4 MG)

Under the 2011 consent decree GWA was required to inspect and repair (where needed) all the steel water tanks within the System. All these tanks were inspected except for three. These three will be inspected/refurbished once respective new concrete tanks are online. The inspections were guided by the American Petroleum institute (API) standard for steel tanks. These API standards provide recommendations for repairs that, when implemented, restore the life span of the tank. By December of 2025, GWA's three (3) new concrete tanks will have been completed, and all but three (3) steel tanks of the total thirty-six (36) tanks will have been inspected and rehabilitated. GWA has implemented the CMMS program to continue to maintain these tanks.

The current state of the water tanks is considered to be good to excellent.

Over the past 15 years GWA has made a significant investment into the water tanks. This is reflected in the good to excellent state of these tanks. It was almost 20 years ago when GWA experienced a steel tank failure, and the state of the tanks was considered poor. This turn around is a testament to GWA's commitment to improving and maintaining its reservoir assets.

# 3.3 System Monitoring

GWA established a centralized system control center (SCC) and trouble dispatch system in 2015. SCC monitors both water and wastewater operations, collects and tracks system data, and helps with information dissemination to all GWA Sections regarding customer service, water outages,

performance measures, and problem anticipation. The SCC is staffed 24 hours per day, seven days per week, with a combination of staff from different field operations. The SCC monitors and coordinates leak repair, reservoir water level measurements, and other field operations activities. The SCC has significantly improved the coordination of activities between the different operating branches of GWA as there is one group responsible for monitoring the system operation and for providing accurate, up-to-date and consistent information to all parties.

System monitoring in the field continues to improve. Efforts related to tank replacement and District Metering Area (DMA) have included data gathering equipment such as water flow meters and pressure loggers. The data collected and transmitted from these upgrades will improve the efficacy of the SCC system.

## 3.4 Non-Revenue Water

NRW is defined by the American Water Works Association (AWWA) in Manual M36 – Water Audits and Loss Control Programs as "unbilled authorized consumption (water for firefighting, flushing, etc.) plus apparent losses (customer meter inaccuracies, unauthorized consumption and systematic data handling errors) plus real losses (system leakage and storage tank overflows)". In other words, NRW is the difference between the amount of water put into the distribution system and the amount of water billed to consumers. The quantity of water put into the system is recorded by the production meters and the amount of water billed to customers is recorded by the customer meters.

Non-revenue water (NRW) is not only caused by water leaks but also metering inaccuracies, water theft, water tank overflows and other undocumented uses. While water leaks are a large contributor the other listed factors can be significant.

In 2021, GWA engaged the services of a water loss consultant who has been actively working with GWA to identify water losses and delineate District Metered Areas (DMAs). These District Metered Areas serve as a management tool to better manage water use and loss. GWA and has established 21 DMAs.

Over the past 4 years, through the assistance of GWA's water loss consultant, GWA has identified over 1,300 defects, including about 1,100 leaks using established DMAs and proactive acoustic leak detection technologies and conducting 85 separate leak detection campaigns. This is comprised of over 80 distribution main leaks, over 700 service lateral leaks, and over 150-meter connection leaks with over 70 confirmed illegal connections. It is estimated that over 1.23 million gallons per day have been restored to the water system. One key challenge with water loss and leak repair is the tendency for the leak to move from a repaired area to another located along the aged waterline. To address this GWA will use the selected consultants to assess and design waterline replacements. This assessment is ongoing.

Notwithstanding the complexities and uncertainties in NRW estimation noted, NRW is currently reported as 65 percent for FY 2024, with real losses reported as 60 percent.<sup>34</sup> Because NRW is a continuing and persistent challenge, GWA is further increasing its emphasis on NRW reduction. GWA's capital program (discussed in Section 6) includes an acceleration of the water line replacement spending contemplated in the WRMPU and continued analysis of data gleaned from District Metering Areas (that have proved useful in identifying real losses). Reduction of NRW is recognized as critical

32

<sup>34</sup> The difference between real losses and the total NRW is that NRW includes additional losses due to unauthorized consumption, metering inaccuracies and data handling errors.

for GWA operations to become as efficient and effective as practicable as it directly impacts customer rates and customer perception, as well as projections for the capacity of the Northern Guam Lens Aquifer (NGLA).

# 4.0 Wastewater System

## 4.1 Wastewater System Overview

GWA provides wastewater services for a portion of Guam's general population<sup>35</sup> and for military installations to include Naval Hospital, Marine Corps Base Camp Blaz, other Navy facilities in Barrigada and Finegayan, and Andersen Air Force Base (AAFB). The system is separated into seven wastewater basins: Northern District, Hagåtña, Agat-Santa Rita, Umatac-Merizo, Inarajan, Baza Gardens, and Pago Socio. The GWA wastewater system includes six WWTPs and an extensive collection system. Figures 4-1 and 4-2 show the locations of the wastewater system pump stations and treatment plants in the northern and southern portions of the island, respectively.

#### 4.1.1 2024 GWA Wastewater Partial Consent Decree

On August 9, 2024 GWA entered into a Partial Consent Decree with the USEPA to address matters related to wastewater collection and treatment. According to this consent decree the goal of the Parties is to eliminate Sanitary Sewer Overflows (SSO) and for GWA to achieve compliance with its NPDES Permits. In entering into this Partial Consent Decree, the Parties intend to further the objectives set forth in the Clean Water Act, to set out measures that GWA will implement to reduce the frequency and impact of SSOs, especially through the reduction of inflow and infiltration, and to take preliminary measures for the construction of secondary treatment upgrades to the Hagåtña WWTP to comply with GWA's NPDES Permit's effluent limitations regulating discharges from that WWTP.

Key items called for in this Partial Consent Decree include:

- 1. FOG/Pretreatment
- 2. Gravity Main Condition Assessment
- 3. Gravity Main Repair, Rehabilitation, and Replacement Program
- 4. Force Main Condition Assessment
  - a. Repair and rehabilitation of 25% of GWA's force main inventory
- 5. Sewage Pump Stations Condition Assessments
  - a. Repair and rehabilitation of Tier 1 Sewer Pump Stations and a portion of Tier 2 Sewer Pump Stations
- 6. Hagåtña WWTP Secondary Treatment Feasibility Study

<sup>&</sup>lt;sup>35</sup> Unlike the Authority's water system, which serves essentially the entire civilian population of Guam, there is a significant percentage of the population that is not served by the Authority's wastewater system. This is particularly true in the northern area of Guam, where many homes rely on individual septic tanks or other on-site disposal systems.

Figure 4-1. GWA wastewater system: North

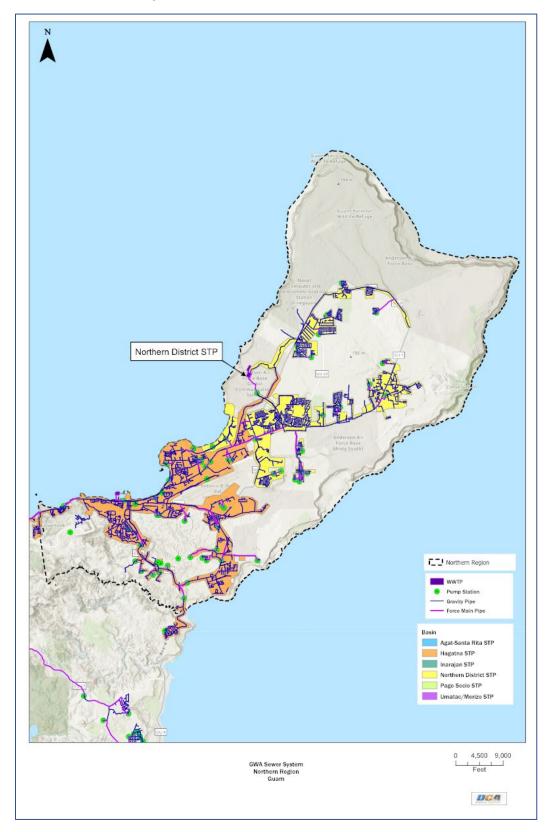
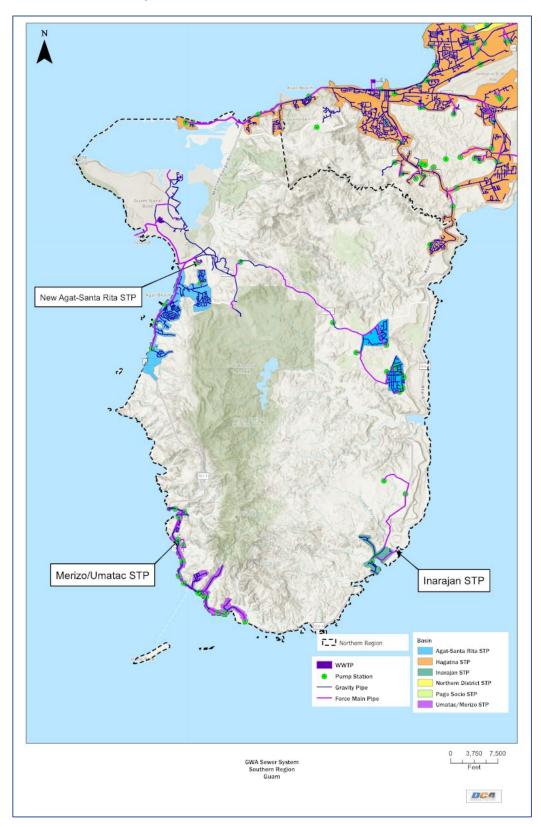


Figure 4-2. GWA wastewater system: South



# **4.2 Wastewater Collection Systems**

The GWA wastewater collection systems are comprised of gravity sewer pipes, force mains, manholes, pump stations, and ejector stations. Table 4-1 summarizes the collection system components.

Table 4-1: Wastewater Collection Systems								
ı	tem	Approximate Quantity						
Gravity sewer pipes		1,540,322 feet						
Force main pipes		212,262 feet						
Pump and ejector stations*		84						
Manholes		7,310						
*All 84 wastewater pump star	tions are active.							

The older portions of the collection system date back to the 1940s. While the majority of the piping material is PVC and AC, the system also includes iron, clay, and other materials as summarized in Table 4-2.

Table 4-2: Gravity Collection System Materials Summary								
Pipe Material	Approximate Quantity (feet)	Percentage of Total						
PVC plastic	574,642	37.3						
Asbestos cement (AC)	522,817	33.9						
Other concrete (including cast-in-place, polymer, and reinforced)	17,645	1.2						
Iron (including cast and ductile)	20,532	1.3						
Other (including terracotta and vitrified)	26,735	1.7						
Polyethylene plastic	32,281	2.1						
Unknown	345,671	22.5						
Total	1,540,323	100.0						

## 4.2.1 Wastewater Collection System Condition

The GWA collection system includes approximately 290 miles of piping constructed using a variety of materials and ranging from 4-inch to 48-inch diameters.

Currently, the overall condition of the collection system is poor to fair.

Approximately 34 percent of the piping is constructed of AC pipe. The AC pipe has experienced accelerated rates of corrosion in certain sections of the collection system, and their condition is poor. Repair or replacement will be necessary for most of the AC piping in the future.

Sewer System Evaluation Studies (SSES) have been completed island wide. GWA has an ongoing program for CCTV inspections and to investigate areas of concern using smoke testing as appropriate. Results of the SSES studies were used to identify sewer mains in need of repair. This includes projects to rehabilitate or replace collection system elements so that GWA can reduce the inflow into the sewer system and lower the flow rates in the collection system and into the WWTPs. Over the last 10 years GWA has competed over 20 miles of new or rehabilitated sewer infrastructure.

- 2022 Rehabilitation of 16,000 ft of sewer main in the Hagåtña and Asan Basin
- 2022 Installation of 2,500 ft of new sewer main in Agat
- 2020 Rehabilitation of 44,000 ft of sewer main along Route 3
- 2018 Installation 4,500 ft of new sewer main along Macheche Avenue
- 2017 installation 39,000 ft of new Cross Island Road collector (sewer /pump stations / forcemain)
- Total length of new or rehabilitated infrastructure: 106,000 ft (20 miles)

GWA also developed a new collection system pipeline prioritization and replacement model in 2017 as part of the WRMPU that shows that GWA should spend a minimum of \$5 million per year to address leaks and rehabilitate or replace pipelines to reduce high flows impacting WWTPs and the risk of collection system overflows.

## 4.2.2 Wastewater Pump Stations Condition

GWA completed a systemwide condition assessment of all the sanitary sewer pump stations in 2017 as part of the WRMPU project. The pump stations are in various conditions, with some needing renewal or replacement and some being recently upgraded or constructed. GWA is continuing to improve the condition of pump stations by replacing pumps, controls, and other mechanical improvements.

Currently, the overall condition of the collection system is poor to fair.

## 4.3 Wastewater Treatment and Disposal Systems

GWA owns and operates six WWTPs. Table 4-3 summarizes the design capacity, treatment systems, and effluent disposal system of each WWTP. A discussion of each WWTP follows this section.

Table 4-3. Wastewater Treatment Facilities								
WWTP	Design Capacity Average Daily Flow (mgd)	Treatment Systems	Effluent Disposal System					
NDWWTP <sup>a</sup>	12.0 <sup>b</sup>	Secondary: Oxidation Ditch	Ocean outfall					
Hagåtña (Agana)	12.0	Chemically enhanced primary <sup>C</sup>	Ocean outfall					
Agat-Santa Rita	1.6	Secondary: Oxidation Ditch	Ocean outfall					
Umatac- Merizo	0.39	Secondary: aerated lagoon/overland flow	Dry weather: evapotranspiration and percolation Wet weather: Toguan River					
Inarajan	0.19	Secondary: aerated lagoon	Percolation					
Pago Socio	0.025	Centralized septic system	Percolation					
Total	26.205							

a. Northern District Wastewater Treatment Plant

b. The 2011 Court Order currently limits the average daily flow to 9 mgd.c. The effluent permits have been updated based on the 2024 Partial Consent Decree.

Figure 4-3 shows the relative size of the design capacities of the WWTPs with respect to the total capacity on the island.

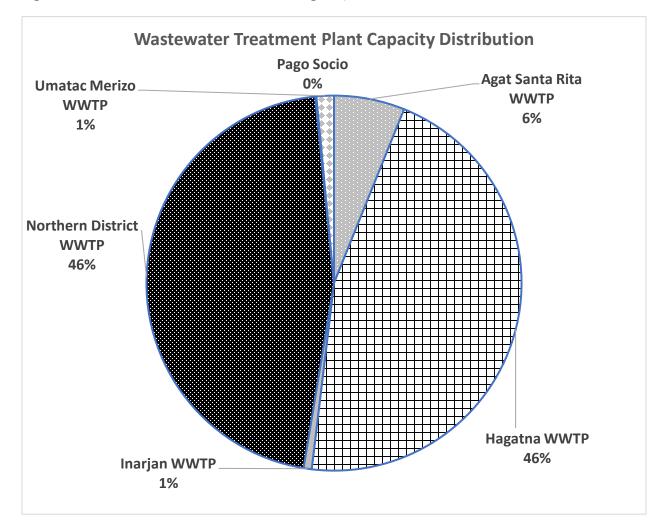


Figure 4-3. Relative size of Guam WWTPs' design capacities

## 4.3.1 **NDWWTP**

The Northern District WWTP currently serves a population of approximately 76,000 people. It is located in Dededo on the northwest coast of Guam. The WWTP collects and treats wastewater from the areas of Tamon, Harmon, Dededo, Latte Heights, Perez Acres, Ypaopao, and Marianas Terrace, the Yigo collector system, and other unincorporated subdivisions throughout the Yigo and Dededo villages. The service area includes residential and commercial users, and potentially, industrial users.

The service area also includes United States military facilities within the areas of Dededo and Harmon Annex, including Andersen Air Force Base, and wastewater from the new Marine Corps cantonment.

The WWTP was upgraded in 2019 and began full operation as a secondary treatment facility in 2021. The permitted flow of the WWTP is 12.0 mgd of average daily flow. The plant was also constructed with

provisions for expanded capacity with an additional clarifier and oxidation ditch. The liquid treatment processes include rotating drum screens; vortex grit removal; three oxidation ditches with anoxic, anaerobic, and aerobic operational flexibility; three secondary clarifiers and three ultraviolet disinfection channels. The secondary solids are stored in an aerated basin, thickened with gravity belt thickeners and processed through an auto thermal thermophilic aerobic digestion (ATAD) process. The processed solids are dewatered in centrifuges before being transported for disposal in Layon Landfill.

GWA constructed a new autothermal aerobic thermophilic digestion (ATAD) system at the NDWWTP. This digestion process is capable of treating FOG. In order to treat FOG this new system requires a receiving station. GWA has a design consultant on board to prepare the construction documents for this new receiving station. The FOG receiving station will advance GWA's FOG Program, which is a requirement under its NPDES permit and part of the 2024 Partial Consent Decree.

The effluent from this WWTP is discharged through an outfall (NPDES Permit GU0020141) into the Philippine Sea. The outfall terminates at a recently installed diffuser located approximately 1,850 feet from shore, at a depth of 150 feet. This WWTP is in compliance with its NPDES Permit.

The current state of this WWTP is considered to be excellent. The current state of the WWTP outfall is also considered to be excellent.

## 4.3.2 Hagåtña WWTP

The Hagåtña WWTP serves a population of approximately 82,645 people. The WWTP collects and treats wastewater from the central region of Guam, which includes the villages of Hagåtña, Agana Heights, Asan Piti, Tamuning, Mongmong-Toto, Sinajana, Chalan Pago-Ordot, Yona, Mangilao, a portion of Barrigada, and Tumon.

The Hagåtña WWTP is located on a 152.4-meter by 213.4-meter (500-foot by 700-foot) man-made island west of Hagåtña Bay.

The permitted flow of the WWTP is 12.0 mgd. Treatment processes at the WWTP include screening of raw sewage, and chemically enhanced primary treatment (CEPT) in three primary clarifiers operating in parallel. Effluent is discharged through an outfall to the Philippine Sea (NPDES Permit GU0020087). During periods of high sea level, an effluent pump station is used to pump the effluent through the outfall. The 2024 Partial Consent Decree established modified effluent limits for this WWTP. This WWTP is in compliance with these modified limits.

Sludge and scum are pumped to three aerobic digesters and decanted prior to centrifuge dewatering and disposal at the Layon Landfill.

The current state of this WWTP is considered to be poor. The current state of this WWTP outfall is considered to be excellent.

Equipment replacement is planned for this WWTP. It is expected that this replacement equipment will be installed by the last quarter of 2025.

## 4.3.3 Agat-Santa Rita WWTP

The Agat Santa-Rita WWTP collects wastewater from approximately 2,300 residents in the villages of Agat, Santa Rita, Baza Gardens, and Talofofo. The population served is expected to expand as residents along Cross Island Road (Guam Route 17) connect to the collection system in that area. The

wastewater is mainly from domestic sources. There are some commercial sources including restaurants and stores, and churches and schools.

The WWTP is located on Route 2A, Tipilao, just north of Agat. The WWTP has a maximum permitted flow rate of 1.6 million gallons per day (mgd) during dry weather, and an estimated peak flow of 9.3 mgd during wet weather. This WWTP has the space and ability for expansion to take additional flow from the Naval Station (US Navy) located adjacent to this WWTP.

The WWTP began full operation in March 2017. The liquid treatment processes include rotating drum screens; vortex grit removal; four flow equalization tanks; two oxidation ditches with anoxic, anaerobic, and aerobic operational flexibility; two secondary clarifiers; two ultraviolet disinfection channels; and an effluent pumping station to the outfall in Tipalao Bay. The secondary solids are treated in two aerobic digesters and then thickened with gravity belt thickeners. The thickened solids are dewatered in centrifuges before being transported for disposal in Layon Landfill.

The effluent from this WWTP is discharged through a combined outfall shared with the U.S. Navy's Apra Harbor Wastewater Treatment Plant (NPDES Permit GU0020222) into Tipalao Bay. The outfall terminates at a diffuser located approximately 1,750 feet from shore, at a depth of 130 feet. This WWTP is in compliance with its NPDES permit.

The current state of this WWTP is considered to be excellent. The current state of the WWTP outfall is also considered to be excellent.

## 4.3.4 Inarajan WWTP

The Inarajan WWTP is an aerated lagoon treatment facility located north of the village of Inarajan. The WWTP has a design capacity of 0.19 mgd, which represents less than 1 percent of the island's wastewater treatment capacity. Treated effluent is discharged to percolation basins.

The Inarajan WWTP is operating satisfactorily but is in need of a rehabilitation project to replace piping, valves, equipment, and structures that are nearing the end of their useful service lives. A sludge-removal project for the lagoons will also be necessary. A rehabilitation project for Inarajan WWTP is identified as a line item in the current five-year CIP.

While there is no NPDES permit for this WWTP, the effluent discharge is considered to be in compliance with industry standards.

The current state of this WWTP is considered to be fair.

#### 4.3.5 Umatac-Merizo WWTP

The Umatac-Merizo WWTP is located in the village of Merizo. It serves approximately 4,000 residents in the villages of Umatac and Merizo. The service area includes residential and some commercial dischargers, and schools and churches.

The WWTP has a permitted flow of 0.39 mgd average daily flow. The facility was upgraded in 2019 and uses pre-screening and a facultative lagoon for initial treatment. Treated effluent is then disinfected through UV disinfection. Effluent disposal (and "polishing" in wet weather) occurs in a number of wetland treatment system (WTS) terraces, where evapotranspiration and percolation of treated effluent occurs. A recirculation system and equalization (EQ) tank are used to maximize

effluent disposal within the wetland system. Solids generated at this WWTP are removed from the facultative lagoon as needed.

Although the WWTP is a non-discharging facility most of the year, the NPDES permit allows it to discharge during the wet season (generally June through September). The rate tends to be about 0.04 mgd. The WWTP discharges to the Toguan (NDPES Permit GU0020273) during this period, which flows into the Toguan Bay. This WWTP is in compliance with its NPDES permit.

The current state of this WWTP is considered to be excellent. The current state of the WWTP outfall is considered to be good.

## 4.3.6 Pago Socio WWTP

The Pago Socio WWTP is the smallest WWTP owned and operated by GWA, providing less than one percent of the island's wastewater treatment capacity. The facility does not discharge to surface waters; influent is treated in a centralized septic tank and effluent is disposed via leach fields. GWA plans to convert the Pago Socio WWTP to a pump station, abandon the treatment facility and transfer the influent wastewater to the Hagåtña WWTP.

While there is no NPDES permit for this WWTP, the effluent discharge is considered to be in compliance with industry standards.

# **5.0 Regulatory and Legal Issues**

GWA is subject to various regulations and legal challenges that may impose requirements that have a material impact on GWA's financial position. As noted in Section 1.5, GWA has been successful over the last five years in navigating these challenges.

GWA must adhere to Guam and federal regulations for both water and wastewater treatment and services. Water standards are based on the requirements established by the Safe Drinking Water Act (SDWA), while wastewater treatment and disposal are governed by the CWA. USEPA issues NPDES permits for GWA facilities when required and is responsible for monitoring its compliance. GEPA is the territorial agency in charge of monitoring GWA water system operations and monitoring for SDWA compliance. GWA is in compliance with all applicable permits.

Prospectively, GWA faces several regulatory and legal issues that could have a material impact on GWA's financial position as described below:

# **5.1 Rate Regulation**

GWA's water and wastewater service rates and charges are subject to approvals of the CCU and Guam PUC. In general, GWA submits a Five-Year Financial Plan and Rate Increase Request<sup>36</sup> that is then adjudicated through a review process (inclusive of public hearings). The GPUC typically issues a Rate Decision Order in advance of the first year of the Five-Year period to enable approved rates to be implemented by October 1<sup>st</sup> - the beginning of the Fiscal Year. Approved rate plans are subject to annual true-up analyses to evaluate the necessary level of rate adjustment based on actual financial performance.

As noted in Section 1.5, the PUC approved a partial-year implementation of the proposed rate increase for Fiscal Year 2020. The PUC did not consider the Authority's request for annual rate increases for Fiscal Years 2022-2024 until September 2022 -effectively precluding a rate increase for Fiscal Year 2022. The PUC's approval in September 2023 of an increase to the base, lifeline and non-lifeline rates of 16.7% for Fiscal Year 2024 (effective October 1, 2023) followed the depletion of available Rate Stabilization Fund reserves and American Rescue Plan Act rate mitigation funding in FY 2023.

While the PUC has approved a FY 2025 – 2029 Financial Plan, and the forecasted revenues outlined in Section 7 are aligned to that approved plan, actual rate and revenue adjustments are subject to annual true-up processes and may vary from that proposed by GWA.

# **5.2 2011 Court Order Compliance**

In 2011 the U.S. District Court of Guam issued a Court Order identifying a series of compliance requirements and corresponding deadlines for completion, due to GWA's difficulty in meeting prior Stipulated Order deadlines. Out of 93 distinct compliance requirements, GWA has completed or is continuously complying with 91 items (97.8%). The two remaining items involve the repair,

<sup>36</sup> See GPUC Docket No. 00-40: Administrative Docket – Commission Rules of Procedure, Part 4: Application for Rate Relief, specifically Rule 19 (Application), Rule 20 (Standard Filing Requirements), and Rule 22 (Filing Schedules Instruction).

rehabilitation or replacement of certain water reservoirs. The U.S. District Court deadline was extended from June 30, 2023, to December 31, 2025. Funding for the completion of all remaining work in the 2011 Court Order is in place, and GWA continues to work diligently to complete all work by the extended deadline.

## **5.3 Partial Consent Decree**

GWA successfully completed protracted negotiations with USEPA regarding alleged violations of the federal Clean Water Act. GWA's wastewater systems are addressed in a Partial Consent Decree between GWA and the US EPA entered in Guam District Court on August 9 2024. The Partial Consent Decree (CD) is focused on GWA's wastewater collection system with the goal of reducing/preventing sanitary sewer overflows (SSOs). The compliance requirements in the Partial CD involve assessment, planning and upgrade/rehabilitation of sewer gravity mains, pump stations and force mains, along with other operational enhancements (cleaning, CCTV inspection, SSO response, pre-treatment and asset management programs) to maintain proper performance of the wastewater collection system.

In the coming year, GWA will have several deliverables and milestones with which it must comply. These include:

- Inventory of all Force Main piping in GWA's system
- Force Main Contingency Plan
- CCTV Inspection Certification
- Gravity Main Assessment (based on CCTV)
- Tier 1 (Priority) Pump Station Work Plan

# **5.4 Secondary Treatment**

In 2019, the US EPA issued NPDES permits for the Northern District, Hagåtňa, Agat-Santa Rita, and Umatac-Merizo WWTPs that became effective on January 1, 2020. In mid-2024, GWA submitted all documentation required for the renewal of these permits, and currently is under Administrative Extension while the US EPA processes new permits for 2025. The NPDES permits include secondary treatment standards, some of which the Hagåtňa WWTP is unable to meet until a secondary treatment process is implemented at the facility. Under the 2024 Partial Consent Decree, GWA will have seven years from the effective date of the Decree (September 2024) to complete a feasibility study for upgrading or replacing the Hagatña WWTP to secondary treatment. The Hagåtña WWTP will continue to operate using the existing CEPT process under interim effluent limits set for this plant.

GWA has implemented a plan for a bench and pilot-scale study on disinfection feasibility as an interim measure until secondary treatment upgrades can be performed. The results of this study recommended interim upgrades of existing plant equipment and the installation of UV disinfection. GWA is currently upgrading the equipment and the plant controls system with further plans for disinfection. This work was part of the Consent Decree negotiations and may inform the feasibility study required as part of the 2024 Partial Consent Decree.

<sup>37</sup> District Court of Guam, United States of America vs. Guam Waterworks Authority, Civil Case No. 24-00004, Order, Frances M. Tydingco-Gatewood, Chief Judge, dated: Aug 09, 2024.

## **5.5 Emerging Contaminants**

#### 5.5.1 **PFOS and PFOA**

According to a 2017 USEPA factsheet perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) have been released to the environment through industrial manufacturing and through use and disposal of PFAS-containing products. PFOS and PFOA are the most widely studied of the PFAS chemicals. PFOS and PFOA are persistent in the environment and resistant to typical environmental degradation processes. As a result, they are widely distributed across all trophic levels and are found in soil, air and groundwater at sites across the United States including Guam. The toxicity, mobility and bioaccumulation potential of PFOS and PFOA result in potential adverse effects on the environment and human health.

In April of 2024, the US EPA announced its final rule for the regulation of PFAS compounds under the Safe Drinking Water Act. The regulations require that public water systems treat source water with concentrations of these substances above a Maximum Contaminant Level (MCL) to remove the contaminants prior to entry into the distribution system.

In 2016, two of GWA water wells exceeded the US EPA health advisory levels. GWA was able to shut these wells off and still maintain adequate water supply to the service areas where the impacted wells are located. GWA has selected a construction contractor to install new GAC treatment systems at these two well sites. The wells are expected to be back on line in 2025.

The promulgation of the proposed regulations on PFAS compounds will require the Authority to design and construct new treatment systems that have not before been needed for Safe Drinking Water Act compliance. GWA is in the process of finalizing the procurement of the design services for these systems and will move quickly to initiate construction of the treatment systems as part of its Five-Year Capital Improvement Program.

#### 5.5.2 Dieldrin

Guam EPA has indicated that it will be promulgating local drinking water regulations for a pesticide compound known as Dieldrin which is currently unregulated at the federal level. According the USEPA, Dieldrin is considered a probable human carcinogen however no maximum contamination level (MCL) has been established by the USEPA. GEPA is set to establish a local action level of 0.2 ug/l. Once set, a limited number of wells within the GWA system may be deemed unusable without treatment. In a proactive response, GWA has prepared construction documents to install granular activated carbon (GAC) treatment systems at three wells deemed most likely to be affected. The USEPA has listed granular activated carbon (GAC) as a preferred treatment technology for this insecticide. Selection of a construction contractor is underway. Additional wells may be impacted by GEPA's determination. GWA is preparing a central transmission system for the affected wells. This system will be used to transmit impacted well water to a centralized treatment system.

# 5.6 Legal Issues

GWA, like all utilities, is involved in typical legal matters that arise through its operations and capital improvement program implementation. In addition, GWA is involved in three somewhat atypical legal matters:

## 5.6.1 Core Tech Litigation

GWA is seeking to quiet title for property listed in a current court action first brought by the Government of Guam, Department of Land Management (DLM). The action seeks to rescind and correct certificates of title which DLM has claimed were erroneously issued to Core Tech International Corporation (Core Tech), a private party. The quiet title action addresses certificates of title for property upon which GWA's Northern District Wastewater Treatment Plant (NDWWTP) is located. Court records show Core Tech is seeking the enjoyment, use, and occupancy of the property and compensation from GWA for inverse condemnation in the amount of \$220 million, as well as damages for trespass and encroachment.

Although GWA believes the matters will be resolved in its favor, GWA cannot predict the outcome of the cases before the Guam Supreme Court or the Guam Superior Court. In the event that the Guam Supreme Court and the Guam Superior Court enter judgments against GWA, the resulting liability could have a material and adverse impact on GWA's financial position. GWA intends to vigorously defend themselves against Core Tech's claims, and intends to vigorously pursue the interlocutory appeal and the quiet title action.

#### 5.6.2 Landfill Leachate

On November 5, 2024, Gershman Brickner and Bratton, Inc. (GBB), the federal receiver for the Ordot Landfill, filed a \$4.4M lawsuit against the Authority. The suit claims that the Authority caused increased leachate flows at the landfill, resulting in extraordinary costs for both GBB and the Guam Solid Waste Authority (GSWA). On January 6, 2025, GWA filed a Motion to Dismiss, arguing that GBB failed to properly file a government claim and lacks authority to sue on GSWA's behalf without GSWA's consent. The Guam Superior Court heard arguments on the Motion to Dismiss on April 18, 2025 and took the matter under advisement. While confidential settlement negotiations began in January 2025, these talks were later converted to non-confidential discussions. Settlement negotiations have since stalled, with no further engagement between the parties. The Authority intends to vigorously defend itself against GBB's claims.

#### 5.6.3 **PFAS**

GWA is a class member and claimant in the National Water Provider Settlement class action suit for PFAS. In 2024, GWA filed timely claims for both the 3M and Dupont settlements. The final stages of review and award allocation for the 3M and Dupont settlements are expected in calendar year 2025; however, information on when payment awards will be issued remain unknown. GWA will consider whether to file claims as a class member for any future water provider settlements as part of this legal proceeding and expects to file claims under two separate settlements in 2025 for Tyco and BASF.

# **6.0 Capital Improvement Program**

This section outlines GWA's capital program planning process, and describes GWA's four major capital project categories. It provides a summary of GWA's FY2025 to 2029 Capital Improvement program encumbrance and funding schedule that is the basis for the Financial Plan outlined in Section 7.

Dueñas Camacho & Associates (DCA) has reviewed the CIP and affirms that it is reasonable and adequate to address regulatory requirements including the recently entered Partial Consent Decree. DCA notes that the CIP is structured to make reasonable progress on Water Loss Control, <sup>38</sup> and continue sound asset management.

Implementing the level of capital projects proposed will be a challenge. However, GWA has implemented major projects (e.g., the Northern District WWTP) and can acquire assistance for projects through multiple ID/IQ contracts currently in place. Accordingly, the encumbrance schedules for the current CIP appear to be reasonable and achievable.

## **6.1 Capital Program Planning Process and Key Considerations**

GWA's FY 2025 – 2029 CIP as presented herein is the outcome of a structured, deliberate capital planning process that has involved the development of GWA's 2023-2024 Interim Water Resource Master Plan Update, assessment of evolving regulatory requirements (as described in Section 5), and consideration of changing weather-related and contractor availability risks, as well as outcomes of GWA operating programs (as discussed in Section 2), most notably its asset management, water loss control and cyber security programs.

# 6.1.1 Water Resources Management Plan Updates

GWA has developed and updated its capital program through regular master planning initiatives. In 2018, GWA updated to its 2006 Water Resources Master Plan and built in regular, periodic reviews (3-year) and updates (5-year) to the WRMP; in 2023, GWA initiated an update to that 2018 plan, which was approved by the CCU in May 2025. This recently completed master plan update provides the foundation for the CIP summarized herein which in turn define the capital funding requirements for the financing plan summarized in Section 7.

In general, the master planning process involves a comprehensive assessment of GWA's progress toward delivering acceptable levels of service and complying with drinking water standards and clean water regulations. The master plans consider service levels, projected changes in population, land use and source water supplies; current and potential regulations; and determinants of water losses and asset conditions. Assessment of GWA's asset management and water loss control programs, GIS, and SCADA/electrical systems are also covered.

 $<sup>^{</sup>m 38}$  Informed by District Metering Area implementation and rigorous analyses as noted in Section 3.4.

<sup>39</sup> See Guam Waterworks Authority Water Resources Master Plan Update, August 2018, prepared by Brown & Caldwell (and approved by the by the CCU in August 2018 under Resolution 43-FY 2018); Guam Waterworks Authority Water Resources Master Plan Update, April 2025, prepared by Brown & Caldwell (and approved by the CCU in May 2025 under Resolution 30-FY 2025).

GWA's master plan update delineates a capital improvements plan intended to effectively balance system investment needs with financial impacts on GWA ratepayers. The WRMPU provides the basis for most of the capital improvements included in the current five-year CIP. Adjustments to the updated master plan capital program include new capital requirements not previously known, such as the PFAS and Emerging Contaminant treatment system initiative. The changes address regulatory changes, new construction or developments, and changes in priorities such as waterline replacements based on Water Loss Control Program implementation.

## 6.1.2 Weather / Location Related Risks

Though considered in the master planning process, GWA's physical location and circumstances heighten several risks relative to other water and wastewater systems. GWA's proactive responses to these risks further inform the development of GWA's capital program. In particular:

## 6.1.3 Changes in the Environment

As a small island without greatly diversified water resources, Guam is vulnerable to changes in climate, climate variability, and extreme events such as droughts and tropical cyclones (typhoons). The potential for both flooding and drought can impact freshwater supply management and associated infrastructure. GWA monitors climate variability and considers mitigation strategies in its capital planning for the potential reduction in water supply and projected increase in drought conditions.

#### 6.1.4 Natural Disasters

Guam is the largest and southernmost island in the Mariana Island chain and experiences occasional typhoons and earthquakes because of its geographic location. <sup>40</sup> GWA continues to improve their facilities to withstand typhoons by, for example, replacing the steel tanks that have suffered damage in the past with ground-level concrete tanks designed for higher typhoon-strength winds. GWA's underground facilities are rarely affected by high winds and intense typhoon rains. In addition, a majority of GWA's above ground infrastructure is housed in concrete buildings that can withstand typhoon conditions. Guam has established building codes that address the seismic and wind loads for the island. Existing GWA structures were designed to meet the building codes that were in effect at the time of design. New structures, and structures undergoing structural rehabilitation, are designed or upgraded to comply with the current International Building Codes.

# 6.1.5 **Contractor Availability**

The bidding climate on Guam is becoming increasingly challenged with fewer contractors bidding on GWA and other local government agency projects. While there are still contractors submitting bids for current projects, the number of contractors has been reduced. The present

Typhoon Mawar struck Guam in 2023. This typhoon exposed weaknesses with standby power systems as many generators were compromised by deferred maintenance or by challenges with securing spare parts. One key deficiency was the inability to re-fuel the entire system of generators over the course of the island wide power outage. Through agreements with the Federal Emergency Management Agency (FEMA), GWA and Guam Power Authority have secured 104 new standby generators. GWA has updated the typical standard of three days of fuel storage to between 5 and 7 days. Earthquakes have caused minimal damage to GWA infrastructure, but damage to the underground pipe network does occur and may go unnoticed. In August 2015, GWA reported broken water mains in Mangilao caused by a magnitude 5.4 earthquake, and emergency water outages occurred. Another instance of notable GWA infrastructure loss was the damage sustained by the Hagåtña WWTP outfall pipe by a 1993 earthquake. The broken outfall pipe has since been replaced with a new outfall, and the damaged outfall abandoned.

understanding is that demand for contractors has increased with the ongoing military build-up. GWA engineering is aware of this challenge and have taken a closer look at ways to improve the bidding environment. Alternatives that have been considered include:

- Simplifying bid packages to cater to relatively smaller general contractors
- Improving standardization of equipment specifications
- Conducting workshops with contractors to better understand needs
- Mitigating schedule risks where possible
- Considering inclusion of design specifications for pre-fabricated elements where appropriate to reduce manpower and schedule risk constraints

## **6.2 Capital Program Project Categories**

Based on GWA's master planning efforts, outcomes of key operating programs including asset management and water loss control, and consideration of key risks, GWA has developed a comprehensive CIP for FY 2025 – 2029 using four general project categories.

## 6.2.1 Water Production, Treatment, Distribution, and Storage

The Water Production, Treatment, Distribution, and Storage CIP includes:

- 1. Rehabilitation, replacement or construction of new groundwater wells with updated casing and screens to improve well maintenance and operations. These upgrades will include robust chlorine injection and monitoring systems to improve safety and chemical usage. Upgrades to the well heads will improve groundwater management. Wellhead treatment will be done to assure protection from emerging contaminants and PFOS. Centralized treatment systems for production wells will be considered and pilot testing conducted to select the preferred treatment system. Upgrades to the Ugum water treatment plant will help to capture more surface water and increase water production at the Ugum WTP.
- 2. Water distribution pipeline improvements and upgrades will include replacement of aged 2-inch and asbestos water lines. This will have a positive impact on water loss control and reduce the dependency on Navy Water.<sup>41</sup> These upgrades will continue to improve the District Metering Areas within the GWA distribution system. Improvements to metering, isolation and pressure control will be done as part of this upgrade.
- 3. BPS improvements will provide redundancy and weather hardening of the water system. Upgrades to the pumping system will allow GWA to better manage the assets and provide for better knowledge transfer for operations and maintenance. Pump station improvements will increase site security and minimize downtime during typhoons and island power fluctuations. Relocation of pump stations will help maximize the pump station efficacy and service areas.
- 4. Completion of remaining reservoirs necessary to be in compliance with the 2011 Court Order, and other regulatory requirements will be part of the program. This will include regular tank inspections to assure these assets meet and exceed their projected life spans.

<sup>&</sup>lt;sup>41</sup> See Section 3.4 for a discussion of Non-Revenue Water including estimates of water loss reductions to date through GWA's Water Loss Control Program.

#### 6.2.2 Wastewater Collection and Treatment

The Wastewater Collection and Treatment CIP includes projects to rehabilitate or replace collection system pipes and pump stations in conformance with the 2024 Partial Consent Decree. This includes:

- Collection system replacements and upgrades. This will reduce impacts from infiltration and inflow, reduce sanitary sewer overflows, and provide increased reliability in the collection system.
- Assessment and upgrades of pump and force mains will improve capacity and reduce the potential for sanitary sewer overflows. Improved pump controls will allow for better pump efficiency and power savings.
- 3. Pump station upgrades will include improvements to the emergency power, lighting and ventilation systems. Improved access and site protection will assure asset security. The pump station sites will be brought to, or exceed, industry standards.
- 4. Improvement to the FOG and pre-treatment programs will assure the collection system and WWTPs are operating efficiently and with minimal risk from clogging and treatment upsets.
- A feasibility study will be done to determine how the Hagatña WWTP will be upgraded to secondary treatment at its current location, or if it will be relocated to a new location as a new WWTP.

## 6.2.3 Electrical, Monitoring and Control

The Electrical, Monitoring and Control CIP includes electrical and control system upgrade projects at groundwater wells, BPS, and wastewater pump stations, water and wastewater treatment facilities, as well as development of a SCADA system to increase operational control and efficiency. Realtime monitoring of pressure, flow, elevation, and chlorine residual levels will provide essential data to allow for DMA improvements and identification of specific water loss areas. Improved monitoring and control will consist of standardized pressure loggers, flow metering and system controls. This improvement will help to optimize operations and provide for improved system efficiencies. This will increase equipment life cycle and reduce operating costs. Hardening of the electrical system will include power filters and increased surge protection and onsite battery systems. This will reduce motor burnouts and improve reliability in water and wastewater pumping systems.

## 6.2.4 General Plant and Miscellaneous

The General Plant and Miscellaneous CIP includes projects for information technology improvements, security improvements, mobile fleet replacements, and general plant improvements. Technology improvements include CMMS and central SCADA system enhancements. These systems will aid in data analysis and work order management. Security improvements include site and hardened network access, 24-hour site surveillance and intrusion detection, and increased force protection. Improvement to the fleets include not only personnel vehicles but also unique system maintenance and surveillance equipment.

# **6.3 Capital Program Encumbrances**

In March 2024, <sup>42</sup> the CCU approved GWA's FY 2025 through 2029 Financial Plan and CIP which is largely the basis for CIP described in this section. Table 6-1 presents the CIP project encumbrance schedule by project category in current dollar terms; Table 6-2 presents the CIP project encumbrance requirements in nominal dollar terms. The CIP requires funding of \$898.75 million in nominal dollars over the five-year period as discussed in Section 7.

Table 6-1: Capital Program Encumbrances by Project Category (Current Dollars)

	F	Y 2025	F	Y 2026	F	Y 2027	F	Y 2028	F	Y 2029	1	ΓΟΤΑL
Water Production	\$	22.39	\$	41.18	\$	20.50	\$	19.00	\$	15.00	\$	118.07
Water Treatment		9.36		40.00		-		47.00		10.00		106.36
Water Distribution		73.63		30.47		7.75		117.00		27.50		256.36
Water Storage		12.00		11.55		26.75		10.00		2.40		62.70
Water Subtotal	\$	117.39	\$	123.20	\$	55.00	\$	193.00	\$	54.90	\$	543.49
Wastewater Collection		29.94		31.58		36.60		7.00		28.00		133.13
Wastewater Treatment		2.00		30.00		-		1.00		2.00		35.00
Wastewater Subtotal	\$	31.94	\$	61.58	\$	36.60	\$	8.00	\$	30.00	\$	168.13
Electrical, Monitoring & Control	\$	1.83	\$	5.00	\$	14.00	\$	-	\$	1.00	\$	21.83
General Plant & Miscellaneous	\$	14.49	\$	28.54	\$	42.13	\$	25.20	\$	5.00	\$	115.36
System Total	\$	165.64	\$	218.32	\$	147.73	\$	226.20	\$	90.90	\$	848.80

<sup>1 -</sup> Numbers in millions; some calculation discrepancies may exist due to rounding

<sup>&</sup>lt;sup>42</sup> Resolution 11-FY2025 Relative to Approving the Five-Year Financial Plan and Capital Improvement Program signed March 4, 2024.

Table 6-2: Capital Program Encumbrances by Project Category (Nominal Dollars)

	F	Y 2025	F	Y 2026	F	Y 2027	F	Y 2028	F	Y 2029	•	ΓΟΤΑL
Water Production	\$	22.39	\$	41.99	\$	21.74	\$	20.96	\$	17.21	\$	124.29
Water Treatment		9.36		40.79		-		51.84		11.47		113.47
Water Distribution		73.63		31.08		8.22		129.05		31.55		273.53
Water Storage		12.00		11.78		28.37		11.03		2.75		65.93
Water Subtotal	\$	117.39	\$	125.64	\$	58.33	\$	212.88	\$	62.98	\$	577.22
Wastewater Collection		29.94		32.21		38.82		7.72		32.12		140.81
Wastewater Treatment		2.00		30.59		-		1.10		2.29		35.99
Wastewater Subtotal	\$	31.94	\$	62.80	\$	38.82	\$	8.82	\$	34.41	\$	176.80
Electrical, Monitoring & Control	\$	1.83	\$	5.10	\$	14.85	\$	-	\$	1.15	\$	22.92
General Plant & Miscellaneous	\$	14.49	\$	29.11	\$	44.68	\$	27.80	\$	5.74	\$	121.81
System Total	\$	165.64	\$	222.65	\$	156.68	\$	249.50	\$	104.28	\$	898.75

<sup>1 -</sup> Numbers in millions; some calculation discrepancies may exist due to rounding

## 7.0 Financial Performance

## 7.1 Overview

This section summarizes historical financial performance, service rate adjustments and customer bill comparisons, and projected System financial performance for the period FY 2025 through FY 2029. Forecasted performance reflects capital financing requirements associated with GWA's Partial Consent Decree, projected operating expense that includes the Authority's salary migration cost adjustments as well as anticipated efficiencies from the island's new Ukudu power plant, the implementation—in FY 2026—of PUC-approved water and wastewater rate structure revisions, and approved rate revenue levels included in GWA's recently adjudicated five-year rate plan.

Projections have been developed using a combination of financial planning and revenue forecasting models designed to represent utility cash flows under alternative assumptions related to projected operations and maintenance expenses, capital expenditures and assumed debt repayment schedules. Prospectively, GWA continues to face challenges associated with increasingly stringent regulatory requirements, System water loss, and renewal and rehabilitation needs typical of major water and wastewater systems.

### 7.2 Historical Performance

Table 7-1 presents a brief overview of audited financial performance of the Authority for the most recent five-year period, FY 2020 through FY 2024.

Combined water and wastewater rate revenues <sup>44</sup> (including legislative surcharge revenues) increased 25.2 percent over the reporting period, from \$101.9 million in FY 2020 to \$127.6 million in FY 2024. During the same five-year period, billed water and wastewater volumes have decreased 2.7 percent and 0.7 percent, respectively, on a compounded annual basis. <sup>45</sup> The increase in rate revenues is therefore primarily attributed to rate adjustments during GWA's prior five-year rate plan (see Section 7.3). The other revenues category, which includes miscellaneous revenues such as installation fees, reconnection fees, and honey bucket service fees, has remained relatively constant during the reporting period. Total operating revenues increased 5.7 percent per year from FY 2020 through FY 2024.

Over the same reporting period, O&M expenses of the System increased 27.1 percent, from \$65.3 million in FY 2020 to \$83.0 million in FY 2024. Fower and water costs outpaced all other categories, increasing at more than 55 percent. The largest expense, Salaries and Benefits, increased just 3.8 percent (\$1.1 million) over the last five years. Administration and General expenses increased 7.8 percent and Contractual expenses increased 18.2 percent. Retiree expenses fluctuated significantly as a result of shifts in actuarial assumptions and market performance under GASB 75.

<sup>43</sup> GWA's fiscal year runs from October 1 through September 30.

<sup>44</sup> Does not include Other Revenues presented in Table 7-1.

<sup>&</sup>lt;sup>45</sup> Unless otherwise noted, annual percentage changes are reported on a compounded annual basis.

<sup>46</sup> Exclusive of capitalized labor and other expense adjustments.

Overall, O&M expenses increased 6.2 percent per year from FY 2020 through FY 2024. Net operating revenues, prior to adjustments, increased 21.4 percent over the historical period, from \$37.2 million to \$45.2 million (equivalent to an annual growth rate of 5.0 percent).

Table 7-1. Historical Financial Performance

	F	Y 2020	F	Y 2021	Y 2022	F	Y 2023	F	Y 2024
Water Rate Revenues <sup>1,2</sup>	\$	64.84	\$	63.63	\$ 63.32	\$	66.36	\$	79.00
Wastewater Rate Revenues		33.76		30.86	33.17		36.39		44.51
Legislative Surcharge		3.32		3.09	2.94		3.08		4.05
Other Revenues		0.59		0.50	0.46		0.57		0.59
Total Operating Revenues	\$	102.50	\$	98.08	\$ 99.90	\$	106.40	\$	128.16
Power Purchases		14.12		12.51	18.58		24.40		21.89
Water Purchases		5.55		6.62	5.66		7.04		8.66
Salaries & Benefits		28.19		28.00	25.89		27.55		29.24
Admin & General		8.64		8.28	7.96		9.02		9.31
Contractual Expense		4.43		4.25	4.49		5.42		5.24
Retiree Expenses		4.38		9.71	8.86		4.62		8.66
Total Operating Expense	\$	65.31	\$	69.36	\$ 71.44	\$	78.05	\$	83.01
Net Operating Revenues	\$	37.20	\$	28.72	\$ 28.46	\$	28.35	\$	45.15
Interest Income		0.29		0.07	0.28		1.97		3.00
Other Adjustments <sup>3</sup>		2.85		8.62	5.63		2.01		6.59
Capitalized Labor Expense <sup>4</sup>		3.99		3.76	3.70		3.08		3.32
Rate Stabilization Fund Transfers (To) <sup>5</sup>		-		-	5.75		5.65		-
American Rescue Plan Act Funding		-		-	-		12.40		-
Revenues Available for Debt Service	\$	44.33	\$	41.17	\$ 43.82	\$	53.46	\$	58.06
Total Debt Service		34.18		31.44	33.46		39.04		38.52
Debt Service Coverage Ratio		1.30		1.31	1.31		1.37		1.51

<sup>1 -</sup> Numbers in millions; some calculation discrepancies may exist due to rounding

Various revenue and expense adjustments are made to net operating revenues in order to establish revenues available for debt service. Interest earnings from unrestricted operating funds may be considered pledged revenues and are added to net operating revenues. On the expense side, certain cost of living and year-end pension benefits adjustments—components of GWA's retiree expense—are excluded from operating expense (and therefore added back to net operating revenues). Similarly, and consistent with other utilities, the Authority capitalizes a portion of labor costs related to capital project delivery (representing a reduction in O&M expense). The bulk of this cost is attributed to project managers and other GWA personnel that support implementation of the capital program.

<sup>2 -</sup> Rate and surcharge revenues include bad debt adjustments; operating revenues exclude system development charges

<sup>3 -</sup> Certain Retiree expenses, including cost of living and year-end pension benefits adjustments, are excluded from the coverage calculation

<sup>4 -</sup> Some personnel costs related to the delivery of capital improvement projects are capitalized and therefore deducted from O&M (which increases Revenues Available for Debt Service)

<sup>5 -</sup> Negative amounts indicate transfers to the RSF from the operating fund, which results in a reduction of coverage in the transfer year; positive amounts represent transfers from the RSF to the operating fund

In 2021, GWA established a rate stabilization fund using \$11.4 million of existing operating reserves. Rate stabilization funds provide a mechanism to manage unexpected costs and corresponding fluctuations in financial results, allowing utilities to avoid unplanned rate increases. Rate stabilization fund (RSF) transfers, either from the operating fund to the RSF or from the RSF to the operating fund, alter revenues available for debt service. Transfers to the RSF—which typically occurs during years with strong financial results—represent a deferred recognition of revenues while transfers from the RSF increase revenues available for debt service as revenues from earlier periods are recognized. During the historical reporting period, GWA used transfers of \$5.8 million in FY 2022 and \$5.7 million in FY 2023 to manage unanticipated operating expenditures and support the capital program. Adjustments also included the Authority's allocation of American Rescue Plan Act rate mitigation funding in FY 2023 (\$12.4 million).

Revenue and expense trends, as well as corresponding adjustments, have resulted in a 7.0 percent annual growth rate of revenues available for debt service, from \$44.3 million in FY 2020 to \$58.1 million in FY 2024. Debt service reflects the issuance of revenue bonds in FY 2020 (the Series 2020A Bonds with project proceeds of \$123.6 million and the Series 2020B Bonds which refunded a portion of the 2013 Bonds) as well as the issuance of refunding revenue bonds in FY2024 (the Series 2024AB bonds which refunded the Series 2013 and Series 2014 Bonds and tendered of a portion of the Series 2016, Series 2017 and Series 2020B Bonds). As a result, annual debt service increased 12.6 percent over the same period, from \$34.2 million in FY 2020 to \$38.5 million in FY 2024.

The Authority's minimum parity debt service coverage requirement is 1.25x. Debt service coverage has varied between 1.30x in FY 2020 and 1.51x in GWA's most recently completed fiscal year (FY 2024).

### 7.3 Historical and Current Rates

GWA's current water rate structure consists of a monthly charge based on meter size, a two-tiered volumetric rate for residential customers, and a uniform volumetric rate for non-residential customers. The first volumetric tier for residential customers includes the first 5,000 gallons of water consumption, with higher use falling in the second tier. A legislative surcharge, applied to most rate components, allows the Authority to recover costs assessed by the Guam legislature for the purpose of paying retiree benefits. The first-tier residential rate is considered a "lifeline" rate and is not subject to the surcharge.

Historical and current water rates are presented in Table 7-2. Non-lifeline water rate components were increased in FY 2020, FY 2021 and FY 2023 at 5.0 percent, 5.0 percent, and 5.5 percent, respectively. Rate adjustments during the last two fiscal years of 16.7 percent and 11.5 percent were applied to all rate components. The typical residential water bill (based on a 3/4-inch meter and monthly usage of 7,500 gallons) has increased 41.0 percent, from \$68.78 in FY 2020 to \$96.96 in FY 2025, to finance critical capital projects and keep pace with escalating operating costs.

Table 7-3 summarizes GWA's current and historical wastewater rates. A monthly flat rate is charged to all residential customers and multi-dwelling units (e.g., apartments or duplexes) for wastewater service regardless of water use. Non-residential customers pay a volumetric rate for billable flows (which are set equal to 80 percent of water use), but do not currently pay a monthly base charge. The residential wastewater rate is considered a lifeline rate and is therefore not subject to the legislative surcharge. Because of this, the residential wastewater bill remained the same from FY 2020 through FY 2023 but has increased 30.1 percent over the most recent two-year period.

Table 7-2. Current and Historical Water Rates

	F	Y 2020	F	Y 2021	F	Y 2022	F	Y 2023	F	Y 2024	F	Y 2025
Annual Rate Adjustment 1,2		5.0%		5.0%		0.0%		5.5%		16.7%		11.5%
Base Charge by Meter Size												
3/4 inch	\$	23.69	\$	24.87	\$	24.87	\$	26.24	\$	30.62	\$	34.14
1 inch		27.64		29.02		29.02		30.62		35.73		39.84
1.5 inch		43.37		45.54		45.54		48.04		56.06		62.51
2 inch		55.24		58.00		58.00		61.19		71.41		79.62
3 inch		98.67		103.60		103.60		109.30		127.55		142.22
4 inch		138.11		145.02		145.02		153.00		178.55		199.08
6 inch		256.49		269.31		269.31		284.12		331.57		369.70
8 inch		374.85		393.59		393.59		415.24		484.59		540.32
10 inch		512.98		538.63		538.63		568.25		663.15		739.41
12 inch		611.59		642.17		642.17		677.49		790.63		881.55
Residential Volume Charge,	per k	gal										
0 - 5 kgals	\$	3.01	\$	3.01	\$	3.01	\$	3.01	\$	3.51	\$	3.91
6 kgals & above		11.27		11.83		11.83		12.49		14.58		16.26
Non-Residential Volume Cha	rges,	per kgal										
Commercial-1	\$	14.02	\$	14.72	\$	14.72	\$	15.53	\$	18.12	\$	20.20
Commercial-2		14.02		14.72		14.72		15.53		18.12		20.20
Commercial-3		14.02		14.72		14.72		15.53		18.12		20.20
Hotels		14.02		14.72		14.72		15.53		18.12		20.20
Government		14.02		14.72		14.72		15.53		18.12		20.20
Agriculture		4.50		4.73		4.73		4.99		5.82		6.49
Irrigation		4.66		4.89		4.89		5.16		6.02		6.71
Surcharge		3.60%		3.60%		3.60%		3.50%		3.80%		3.50%
Residential Water Bill <sup>3</sup>	\$	68.78	\$	71.46	\$	71.46	\$	74.53	\$	87.17	\$	96.96
Bill increase				3.9%		0.0%		4.3%		17.0%		11.2%

<sup>1 -</sup> Rate adjustments were applied only to non-lifeline components in FY 2020, FY 2021 and FY 2023

Figure 7-1 presents the combined service bill, by system component, from FY 2020 through FY 2025. Bill calculations are based on water consumption of 7,500 gallons per month for residential accounts with a 3/4 inch meter. The monthly water and wastewater bill increased 37.9 percent, from \$96.33 in FY 2020 to \$132.80 in FY 2025. This represents a compounded growth rate of 6.6 percent per year. The Authority's current rates recover operating costs of the System and support debt service associated with the capital program.

<sup>2 -</sup> Rates effective as of the beginning of the fiscal year with the exception of FY 2020 rates, which were effective midyear (March 1, 2020)

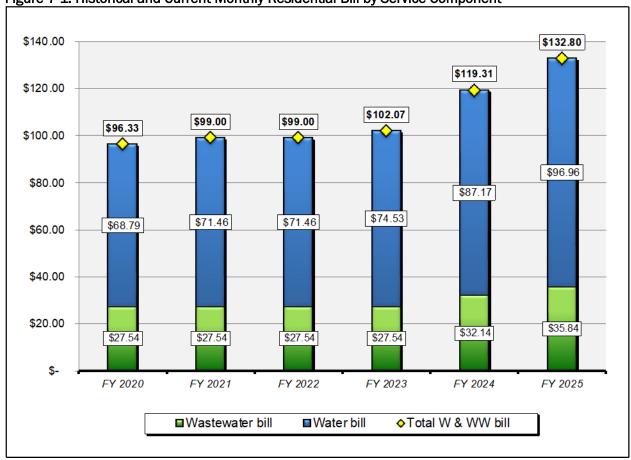
<sup>3 -</sup> Monthly residential bill based on 3/4 inch meter and water usage of 7,500 gallons

Table 7-3. Current and Historical Wastewater Rates

	F`	Y 2020	F	Y 2021	F	Y 2022	F	Y 2023	F	Y 2024	F	Y 2025
Annual Rate Adjustment 1,2		5.0%		5.0%		0.0%		5.5%		16.7%		11.5%
Residential flat rate <sup>3</sup>	\$	27.54	\$	27.54	\$	27.54	\$	27.54	\$	32.14	\$	35.84
Non-Residential Volume Charg	ges,	per kgal										
Commercial-1	\$	7.73	\$	8.11	\$	8.11	\$	8.56	\$	9.99	\$	11.14
Commercial-2		18.83		19.77		19.77		20.86		24.34		27.14
Commercial-3		26.11		27.42		27.42		28.92		33.75		37.63
Hotels		18.83		19.77		19.77		20.86		24.34		27.14
Government		11.05		11.60		11.60		12.24		14.28		15.92
Leachate		26.11		27.42		27.42		28.92		14.72		16.41
Navy		11.05		11.60		11.60		12.24		14.28		15.92
Surcharge		3.60%		3.60%		3.60%		3.50%		3.80%		3.50%
Residential WW Bill	\$	27.54	\$	27.54	\$	27.54	\$	27.54	\$	32.14	\$	35.84
Bill increase				0.0%		0.0%		0.0%		16.7%		11.5%

<sup>1 -</sup> Rate adjustments were applied only to non-lifeline components in FY 2020, FY 2021 and FY 2023

Figure 7-1. Historical and Current Monthly Residential Bill by Service Component



<sup>2 -</sup> Rates effective as of the beginning of the fiscal year with the exception of FY 2020 rates (March 1, 2020)

<sup>3 -</sup> Residential customers, as well as multi-dwelling units, are currently charged a monthly flat rate regardless of usage

## 7.4 Bill Comparisons & Affordability

A comparison of residential and non-residential rates for island communities suggests that GWA's residential rates are in line with similar utilities while non-residential rates are relatively high compared to other service providers. Table 7-4 presents the combined water and wastewater bill for residential customers with 3/4-inch meters and water consumption of 5,000 and 7,500 gallons. GWA's bill is consistent or slightly lower than the bill average across the other utilities. For non-residential customers, comparisons are made for 1-inch meters using 35 kgals per month and 4-inch meters using 1,200 kgals per month. The data demonstrates that the Authority's non-residential rates are roughly two times higher than the next highest service provider.

Table 7-4. Combined Water and Wastewater Bill Comparison

	Residential				Comm	nercial		
Water Usage (kgals): Meter Size:		5,000 3/4 inch		7,500 3/4 inch		35,000 1 inch		1,200,000 4 inch
Guam Waterworks Authority <sup>1</sup>	\$	90.72	\$	132.80	\$	1,095.82	\$	52,260.75
City/County of Honolulu <sup>2</sup>		139.13		165.75		448.98		12,301.67
Northern Mariana Islands <sup>3</sup>		59.39		83.54		409.27		15,921.55
County of Hawaii <sup>4</sup>		100.67		114.05		531.99		18,327.78
County of Kauai <sup>5</sup>		120.65		132.78		353.49		22,532.69
County of Maui <sup>6</sup>		116.97	140.05		596.12			23,649.82

<sup>1 -</sup> Includes a 3.5% surcharge on all non-lifeline rate components; billable flows equal to 80% of metered water use; Commercial-1 rate used for 1-inch bill calculation and Hotels rate used for 4-inch bill calculation

The Authority's existing water and wastewater rates and prospective CIP financing requirements amplify general water affordability concerns that have gained national attention as water and wastewater rate increases have been at roughly double the rate of inflation for over a decade and are expected to continue to do so.<sup>48</sup> These concerns are reflected in recent EPA financial capability assessment guidance and various water and wastewater industry initiatives and publications. Water affordability metrics are also used by credit rating agencies to gauge credit quality.<sup>49</sup>

<sup>2 -</sup> Wastewater bill reflects irrigation credit provided to residential and commercial customers equal to 20% of metered water use

<sup>3 -</sup> Islands are served by the Commonwealth Utilities Corporation; water bill includes a \$3.72 electric surcharge per kgal and the wastewater bill includes a \$1.92 electric surcharge per kgal

<sup>4 -</sup> Residential customers of the County are served by 5/8 inch meters; water bill includes a power cost charge of \$2.32 per kgal and an energy CIP charge of \$0.50 per kgal

<sup>5 -</sup> Group 1 Commercial rate used for 1-inch bill calculation; Hotel with Restaurant rate used for 4-inch bill calculation

<sup>6 -</sup> Other General or Commercial rates used for 1-inch bill calculation; Hotel rate used for 4-inch bill calculation

<sup>&</sup>lt;sup>47</sup> The water use for this latter category typically equates to hotels or resorts.

<sup>&</sup>lt;sup>48</sup> 2021 American Water Works Association Water and Wastewater Rate Survey, p. 9.

<sup>49</sup> See, for example, S&P Global Ratings, U.S. Public Finance Waterworks, Sanitary Sewer, and Drainage Utility Systems: Rating Methodology and Assumptions, January 2016 and Erin Boeke Burke (Associate Director, Municipal and Cooperative Utilities, S&P Global Ratings), "Rates and Affordability: A Ratings Agency Perspective", Water Finance and Management, April 13, 2020.

A 2025 monthly residential bill for 5,000 gallons usage of \$90.72 represented 1.52 percent of Guam's 2024 Median Household Income of \$71,588. These claims on household incomes are not outliers from a national and state-wide perspective and reflect essential revenue requirements. Nevertheless, water affordability challenges are likely to be exacerbated as required rate increases are implemented over the forecast period.

## 7.5 Proposed Rate Structure Changes

As part of GWA's prior five-year rate plan (FY 2020 through FY 2024), a comprehensive cost-of-service study was conducted to evaluate cost responsibilities and subsidies across the water and wastewater systems but also among individual customer classes. Changes to the Authority's rate structure (i.e., the composition of base charges and volumetric rates) were considered at that time but ultimately deferred. In December 2023, the PUC called for additional analysis to respond to the results of the study and ensure basic levels of service remained affordable for GWA's customers. After further study, the PUC approved the proposed rate design in principle in March 2024. The revised water and wastewater rate structure features several notable changes including:

- Adding a third tier to residential water volumetric rates
- Reducing the tier 1 (lifeline rate) threshold from 5,000 to 3,000 gallons
- Implementing wastewater base charges by meter size for residential and non-residential customers
- Eliminating the flat monthly wastewater rate for residential customers
- Establishing a uniform volumetric wastewater rate for residential customers
- Applying the legislative surcharge to all rate components (including lifeline rates)

The new rate structure shifts a portion of cost recovery from water system customers to wastewater system customers and reduces the burden on residential customers—objectives that are consistent with the cost-of-service study and direction provided by the PUC.

The financial forecasts summarized in Section 7.9 assume implementation of the revised rate structure beginning in FY 2026. Rates within the PUC-approved rate design framework were established to achieve forecasted rate revenue recovery levels, meet increased operating costs and capital financing expenses, and achieve debt service coverage levels that were anticipated in the Authority's FY 2025 through FY 2029 rate plan (Docket 24-05).

## 7.6 Capital Financing

The Authority's CIP contemplates encumbrance requirements of \$898.8 million in nominal dollars between FY 2025 and FY 2029. Table 7-5 identifies projected capital project encumbrances by major program element and matching sources of funds. Capital requirements will be funded through

<sup>&</sup>lt;sup>50</sup> Per EPA Financia Capability Assessment Guidance, Median Household Income available for 2019 is escalated to 2024 values based on the change in the Consumer Price Index. (315.605 /256.974 x \$58,289 MHI in 2019).

<sup>51</sup> PUC Order Re: Amended Petition to Approve a New Rate Design Structure, GWA Docket 19-08 dated March 28, 2024. GWA's proposed FY 2026 rates reflect implementation of the new rate design, scaled to generate revenue levels projected in the PUC's FY 2025 – 2029 Rate Decision. PUC approval of FY 2026 rates is expected by September 2025.

six sources: revenue bonds (57.2 percent); short-term construction financing (16.7 percent); grants from the EPA (11.4 percent); net operating revenues transferred from the operating fund—which GWA refers to as internally funded CIP or IFCIP (9.8 percent); system development charge revenues (0.4 percent); and interest earnings on restricted accounts—such as debt service reserves or bond proceeds—that may be used to fund projects (4.5 percent).

The financial plan assumes the Authority will issue revenue bonds to fund capital projects in 2025 (\$250 million in project fund proceeds) and 2028 (\$265 million in project fund proceeds). The plan also assumes that a \$75 million short-term construction financing instrument will also be put in place in 2025 to accelerate encumbrances for Partial Consent Decree work and other high priority projects. The short-term financing instrument is assumed to have a two-year term and will be taken out with revenue bonds in 2027 (\$75 million in project fund proceeds) that will repay the outstanding loan balance and provide substitute funding for projects encumbered against the short-term instrument. A second \$75 million short-term financing instrument is expected to be put in place in 2027 and be taken out with revenue bonds issued in 2029 when it expires (also \$75 million in project fund proceeds). Altogether, short-term construction financing will provide a total of \$150 million for GWA's capital program over the forecast period which will be refinanced with Series 2027 and Series 2029 Bonds. Sanda Series 2029 Bonds.

EPA grants are projected to total \$102.5 million over the five-year period, including SRF capitalization grants from the Drinking Water and Clean Water State Revolving Fund (SRF) program at \$4 million per year as well as GWA's allocation from the Infrastructure and Investment and Jobs Act (IIJA)—also known as the Bipartisan Infrastructure Law. This funding source is expected to provide \$30.5 million in FY 2025, then \$26 million per year in FY 2026 and FY 2027 before the funding authorization expires. <sup>54</sup>

In addition to the funding sources outlined above, the Authority expects to rely on current revenue transfers from the operating fund to contribute \$88.0 million for cash financing of capital encumbrance requirements (IFCIP). Other non-debt funding sources include (1) system development charge revenues which are collected when new building permits are issued and future customers reserve capacity in the System (\$3.8 million) and (2) interest earnings on restricted accounts such as debt service reserves and bond fund proceeds (\$40.6 million).

In addition to prospective capital financing of future capital project encumbrances, it may be noted that GWA had capital project fund balances as of March 31, 2025 of approximately \$127.2 million already encumbered to various capital projects in different stages of procurement and implementation.

\_

<sup>&</sup>lt;sup>52</sup> To the extent that the actual 2025 short-term financing amount varies from \$75 million, GWA may make adjustments to the timing and magnitude of future debt issuances within the plan of finance.

<sup>&</sup>lt;sup>53</sup> Repayment of the Series 2029 Bonds is expected to begin outside of the forecast period for this report, in FY 2030.

<sup>&</sup>lt;sup>54</sup> The IIJA funding allocation for FY 2025 was confirmed by EPA on April 7, 2025. Future grant funding is subject to review and approval.

Table 7-5. Capital Encumbrance Requirements by Project Category and Matching Sources of Funds

	ļ	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	TOTAL	Percent
CIP Requirements by Category 1								
Water Projects	\$	117.39	\$ 125.64	\$ 58.33	\$ 212.88	\$ 62.98	\$ 577.22	64.2%
Wastewater Projects		31.94	62.80	38.82	8.82	34.41	176.80	19.7%
Electrical, Monitoring & Control		1.83	5.10	14.85	-	1.15	22.92	2.6%
General Plant & Miscellaneous		14.49	29.11	44.68	27.80	5.74	121.81	13.6%
Projected Capital Encumbrances	\$	165.64	\$ 222.65	\$ 156.68	\$ 249.50	\$ 104.28	\$ 898.75	100.0%
CIP Funding Sources								
Series 2025 Bonds		250.00					250.00	27.8%
Series 2028 Bonds					265.00		265.00	29.4%
Short-Term Financing <sup>2</sup>		75.00	-	75.00	-	-	150.00	16.7%
EPA Grants <sup>3</sup>		34.49	30.00	30.00	4.00	4.00	102.49	11.4%
Internally Funded Capital (IFCIP) <sup>4</sup>		17.00	17.00	17.00	18.00	19.00	88.00	9.8%
SDC Revenues		0.75	0.75	0.75	0.75	0.75	3.75	0.4%
Interest Earnings <sup>5</sup>		11.37	10.77	6.15	5.44	6.88	40.60	4.5%
Used (Unused) Balance <sup>6</sup>		(222.97)	164.13	27.79	(43.68)	73.65	(1.09)	
Total Funds	\$	165.64	\$ 222.65	\$ 156.68	\$ 249.50	\$ 104.28	\$ 898.75	100.0%

<sup>1 -</sup> All numbers in millions, nominal dollars, slight calculation discrepancies may exist due to rounding

<sup>2 -</sup> GWA will use short-term financing-- which could include Tax-Exempt Commercial Paper notes, a revolving loan or similar instruments-- to encumber projects and issue loans for contractor payment. These short-term instruments, anticipated to be established with 2-year terms, will be refunded with issuance of revenue bonds that will provide substitute funding and pay off the outstanding short-term debt balances when each two-year term expires (Series 2027 Bonds and Series 2029 Bonds, each with project fund proceeds of \$75 million)

<sup>3 -</sup> These grants are awarded annually to GWA and consist of EPA Drinking Water and Clean Water State Revolving Fund (SRF) infrastructure grants and GWA's allocation from the Infrastructure Investment and Jobs Act (IIJA)

<sup>4 -</sup> Net operating revenues from the System

<sup>5 -</sup> Interest earnings on restricted accounts such as debt service reserves and revenue bond proceeds

<sup>6 -</sup> At the end of FY 2029, approximately \$1.1 million will remain (unrestricted balance) for capital projects beyond the forecast period

The Authority's capital improvement plan is subject to frequent review and modification based on new or updated information regarding asset conditions, evolving regulatory requirements, and changing System operational plans. To the extent that actual encumbrances are less than projected, GWA will reschedule applications of IFCIP financing or reduce the issuance of new debt. In the event that new capital requirements place unanticipated claims on available funds that exceed funding capacity limits, the Authority will prioritize projects to manage infrastructure investment within PUC-approved revenue recovery levels and prevailing financial constraints.

## 7.7 Historical and Forecasted Billing Determinants

GWA's water and wastewater rate revenue forecasts are based upon billing data trends from FY 2019<sup>55</sup> through FY 2024, as summarized from monthly billing reports provided by the Authority. Billing system data includes the following information for each customer account: meter size, billed rate revenues by component (base charge, water and wastewater volumetric rates), legislative surcharge revenues, and water and wastewater volumes billed by increment (kgals). Customer information within the monthly reports is also identified by residential and non-residential customer classes as shown in Table 7-6. Within the non-residential category, commercial customers are further delineated based on the type of business:

- Commercial-1 includes churches, schools, offices, stores, and general commercial
- Commercial-2 customers are primarily industrial laundromats and linen service companies
- Commercial-3 includes restaurants, coffee shops, bars and other food and beverage providers with dining facilities<sup>57</sup>

GRG analyzes monthly billing data on a regular basis, comparing actual revenue results to predicted revenues using historical billing determinants and a revenue forecasting tool within GWA's Rate Application Model. This process of cross-checking actual results with predicted revenues ensures accuracy of GWA's revenue projections and identifies average monthly variances that result from pro-rated bills for customers that change residences during the middle of a billing cycle. <sup>58</sup> Created by GRG, the tool forecasts detailed revenues by component by customer class that are used to support GWA's requested rate adjustments, facilitate annual budgeting, and track important trends such as customer growth and water use per account.

## 7.8 Historical Account, Demand and Flow Data

Table 7-6 presents historical water system billing determinants for the Authority, including number of customer accounts, annual water demand, and water demand per account for both residential and non-residential classes. <sup>59</sup> Between FY 2019 and FY 2024, GWA experienced declines in annual billed water volumes (2.2 percent per year) despite steady customer account growth for the largest customer

<sup>&</sup>lt;sup>55</sup> FY 2019 provides a representative annual sample of customer accounts, water use per account, and billable flows prior to the COVID-19 pandemic that began mid-way through FY 2020.

<sup>&</sup>lt;sup>56</sup> Monthly billing reports do not include post-billing adjustments.

<sup>57</sup> Bars or other establishments that do not offer dining facilities are classified as Commercial-1 customers.

<sup>&</sup>lt;sup>58</sup> Actual to predicted revenue variances have averaged under 0.15% during the most recent five-year period.

<sup>&</sup>lt;sup>59</sup> Non-revenue accounts, including GWA accounts, are excluded from billing determinant summaries presented in this report.

classes (Residential and Commercial-1 customers). Total water accounts increased 0.5 percent on a compound annual growth rate basis from 42,740 in FY 2019 to 43,759 in FY 2024<sup>60</sup>. Residential customers are the largest class, representing roughly 92 percent of all water accounts in FY 2024.

Table 7-6. Historical Water System Billing Determinants

Summary Billing Statistics <sup>1</sup>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	CAGR <sup>2</sup>
Residential	39,295	39,440	39,869	39,924	40,139	40,240	0.5%
Commercial-1	2,380	2,358	2,363	2,389	2,445	2,463	0.7%
Commercial-2	17	19	20	20	22	23	5.9%
Commercial-3	288	286	279	282	281	276	-0.8%
Hotel	56	55	56	55	55	54	-0.6%
Government	350	350	354	356	360	359	0.5%
Agriculture	328	326	328	330	325	313	-0.9%
Irrigation	27	30	32	33	33	30	2.4%
Total Water Accounts <sup>3</sup>	42,740	42,864	43,300	43,389	43,660	43,759	0.5%
Residential	3,252.8	3,612.9	3,665.7	3,488.2	3,258.4	3,143.2	-0.7%
Commercial-1	642.8	611.9	625.8	635.3	638.0	673.0	0.9%
Commercial-2	100.1	82.0	63.5	70.0	63.6	74.7	-5.7%
Commercial-3	176.7	133.3	111.8	129.3	134.4	135.1	-5.2%
Hotel	1,042.5	732.7	448.7	454.7	557.0	630.1	-9.6%
Government	412.3	443.6	433.8	512.7	526.8	400.7	-0.6%
Agriculture	88.8	85.1	70.8	66.1	50.5	59.7	-7.6%
Irrigation	7.8	8.6	5.4	5.2	3.8	3.4	-15.0%
Total Water Demand <sup>4</sup>	5,723.7	5,710.1	5,425.5	5,361.5	5,232.5	5,120.0	-2.2%
Demand per Account (gall	ons per mon	nth)					
Residential	6,898	7,634	7,662	7,281	6,765	6,509	-1.2%
Commercial-1	22,510	21,621	22,073	22,160	21,742	22,769	0.2%
Commercial-2	481,357	367,870	265,609	292,880	236,509	269,552	-10.9%
Commercial-3	51,193	38,843	33,351	38,143	39,845	40,789	-4.4%
Hotel	1,560,592	1,110,220	666,679	692,082	849,118	970,936	-9.1%
Government	98,274	105,618	102,246	120,018	121,980	93,013	-1.1%
Agriculture	22,562	21,738	17,991	16,685	12,944	15,872	-6.8%
Irrigation	24,236	24,181	14,057	13,341	9,695	9,524	-17.0%

<sup>1 -</sup> Based on unadjusted monthly billing reports provided by GWA

Historical billing determinant trends were influenced by abnormal economic conditions imposed by the COVID-19 pandemic. During related lockdowns, water use for residential customers increased as the world's population spent more time at home. Many non-residential customers were forced to close or significantly alter business practices. Hotels, in particular, saw a dramatic decrease in occupancy

<sup>2 -</sup> Compounded annual growth rate from FY 2019 through FY 2024

<sup>3 -</sup> Average monthly billed accounts during the fiscal year

<sup>4 -</sup> Annual water volumes in millions of gallons

<sup>60</sup> Minor differences from data provided in Section 2, Table 2-1 reflect adjustments subsequent to production of unadjusted monthly billing reports.

rates as travel to the island was limited and tourism declined. Demand per account for this customer class in FY 2021 was less than half the same statistic in FY 2019, though water use has begun to rebound in the last two fiscal years. Other non-residential classes have seen significant decreases in water use per account, such as the 10.9 percent per annum reduction for customers in the Commercial-2 class. Agriculture and irrigation have also seen steady declines with FY 2024 demand well below pre-pandemic levels.

Besides the impact of the pandemic, another factor contributing to decreased water demand may be customer responses to recent water and wastewater rate adjustments —often referred to as price elasticity of demand. Unlike flat monthly service rates, uniform and tiered volumetric rate structures, like those employed by the Authority for water service, provide a mechanism for residential customers to reduce monthly utility bills by reducing water consumption. Some non-residential customers may also respond to increasing costs of water and wastewater service by adjusting business or manufacturing processes. On the other hand, many commercial customers may not be able to reduce water consumption because it represents an essential part of the business or service they provide.

Historical billing determinants for the wastewater system are shown in Table 7-7. Total wastewater accounts grew at 0.5 percent per year, with Residential and Commercial-1 customers primarily contributing to that increase. Accounts for other customer classes remained relatively constant or declined slightly over the reporting period.

Table 7-7. Historical Wastewater System Billing Determinants

Summary Billing Statistics <sup>1</sup>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	CAGR <sup>2</sup>
Residential <sup>3</sup>	24,198	24,268	24,521	24,539	24,629	24,760	0.5%
Commercial-1	1,867	1,844	1,849	1,868	1,912	1,928	0.6%
Commercial-2	16	18	18	18	19	21	4.9%
Commercial-3	280	277	270	272	270	266	-1.0%
Hotel	52	52	52	51	51	50	-0.9%
Government	256	256	260	261	264	264	0.7%
Total WW Accounts <sup>4</sup>	26,669	26,714	26,970	27,009	27,144	27,289	0.5%
Residential	-	-	-	-	-	-	0.0%
Commercial-1	417.0	392.2	398.9	395.4	394.7	413.6	-0.2%
Commercial-2	80.0	65.6	50.7	55.9	50.7	59.5	-5.8%
Commercial-3	138.4	104.8	87.7	100.8	104.1	104.3	-5.5%
Hotel	685.2	489.9	296.7	315.5	378.6	418.7	-9.4%
Government	308.3	331.7	326.0	391.1	401.6	301.7	-0.4%
Leachate	23.4	29.1	34.1	42.1	36.3	19.8	-3.3%
Navy	563.6	555.9	494.6	491.2	549.8	598.7	1.2%
Billable Flows <sup>4</sup>	2,215.9	1,969.3	1,688.6	1,792.1	1,915.8	1,916.2	-2.9%

<sup>1 -</sup> Based on unadjusted monthly billing reports provided by GWA

<sup>2 -</sup> Compounded annual growth rate from FY 2019 through FY 2024

<sup>3 -</sup> Does not include multi-dwelling units that are assessed the residential flat rate

<sup>3 -</sup> Average monthly billed accounts during the fiscal year

<sup>4 -</sup> Billable wastewater flows in millions of gallons

<sup>61</sup> See Section 7.3.

Billable flows for the System decreased approximately 24 percent over a two-year period that corresponds with impacts from the COVID-19 pandemic, with the bulk of that reduction attributed to the Hotel customer class. Since FY 2021, billable flows for most classes have steadily increased reaching 1.92 billion gallons in FY 2024. This represents a decrease of 13.5 percent relative to FY 2019 billable flows and a reduction of 2.9 percent per year. Billable flows for GWA's system are expected to increase in FY 2026 with the implementation of the new rate structure, which provides for volumetric wastewater billing for residential customers (see Section 7.5). <sup>62</sup>

## 7.8.1 Projected Billing Determinants

Analysis of historical data trends and planned implementation of the PUC-approved rate design provides a basis for future projections of accounts, water demand and billable volumes. Table 7-8 identifies various inputs and assumptions used to establish billing determinants for the Authority over the forecast period and summarizes the resulting forecasts of water sales and billable wastewater volumes.

Customer account growth is expected to follow historical trends. Residential account growth varies by meter size but is assumed to be 0.25 percent per year for water accounts, and 0.40 percent for wastewater accounts for the most common meter size (3/4-inch). Similarly, water and wastewater accounts with smaller meter sizes (3/4-inch) in the Commercial-1 customer class are expected to grow 0.34 percent and 0.75 percent per year, respectively. The number of Commercial-3 customers is projected to decline over time, decreasing -0.50 percent for the water system and -1.0 percent for the wastewater system. Small meter Agriculture customers are expected to decline -1.0 percent. For larger meter sizes, accounts are expected to either remain flat or decrease slightly for most customer classes—consistent with trends observed in the prior five-year period.

Water demand per account for residential customers has decreased 1.2 percent annually since FY 2019 on a compounded growth basis and is expected to continue to decline at 0.5 percent per year. Commercial-1 customers and Commercial-2 customers are expected to also decline at -0.25 percent and -3.0 percent per year, respectively. Hotels and the Government class are projected to continue a slow rebound from COVID levels, with water demand per account increasing 5.0 percent per year for Hotels and 1.5% for Government customers. Demand per account for Commercial-3, Agriculture, and Irrigation customers is expected to remain constant. The per account water use assumptions described above are exclusive of projected price elasticity impacts (i.e., price independent adjustments).

Price elasticity factors of 1.0 for residential customers and 1.5 for non-residential customers are applied in addition to the per account water use trends described above. These factors reflect the expected percentage decrease in demand per account for every 10.0 percent increase in the real (i.e., inflation adjusted) price of water. Because rate design implementation will result in varied bill impacts at different levels of consumption, GWA's revenue forecast uses an estimate of the average bill impact per customer class to calculate the FY 2026 price elasticity and corresponding decrease in demand per account. For FY 2026, the reduction in consumption for residential customers is expected to be

<sup>62</sup> Though residential water use volumes are projected to decline, billable wastewater flows increase substantially due implementation of volumetric residential wastewater rates.

<sup>63</sup> The resulting FY 2026 statistics for these last two customer classes are still below pre-COVID levels despite the upward trend.

0.75 percent, while non-residential customers are anticipated to reduce consumption between 1.8 and 2.4 percent as they react to the new FY 2026 rate structure.

Table 7-8. Projected Billing Determinants and Related Assumptions

	W	ater System		Was	tewater Syste	em
	FY 2024	Annual	FY 2029	FY 2024	Annual	FY 2029
	Actuals	Inputs	Estimate	Actuals	Inputs	Estimate
<b>Customer Accounts</b>						
Residential	40,240	0.25%	40,722	24,760	0.40%	25,250
Commercial-1	2,463	0.34%	2,491	1,928	0.75%	1,978
Commercial-2	23	-	23	21	-	21
Commercial-3	276	-0.50%	272	266	-1.00%	257
Hotel	54	-	54	50	-	50
Government	359	-	358	264	-	264
Agriculture	313	-1.00%	301			
Irrigation	30	-	30			
Subtotal	43,759	0.22%	44,251	27,289	0.39%	27,820
		.1		_		
Demand per Accour				F	Y 2024 - FY	2029 CAGR
Residential	6.51	-0.50%	6.19			-1.00%
Commercial-1	22.77	-0.25%	21.20			-1.41%
Commercial-2	269.55	-3.00%	204.55			-5.37%
Commercial-3	40.79	-	38.47			-1.16%
Hotel	970.94	5.00%	1,126.24			3.01%
Government	93.01	1.50%	94.73			0.37%
Agriculture	15.87	-	15.06			-1.04%
Irrigation	9.52	-	9.04			-1.04%
Water Sales and Bill	lable Flows (kgals)					
Residential <sup>2</sup>	3,143,232		3,025,502	-		1,500,803
Commercial-1	672,999		633,804	413,573		389,487
Commercial-2	74,666		56,456	59,514		44,999
Commercial-3	135,095		125,562	104,279		96,921
Hotel	630,138		729,807	418,670		484,891
Government	400,699		406,942	301,697		306,398
Agriculture	59,678		54,400			•
Irrigation	3,448		3,253			
Leachate	, -		,	19,791		20,000
Navy				598,713		622,398
Subtotal	5,119,953	-0.33%	5,035,726	1,916,237	12.58%	3,465,897

<sup>1 -</sup> Where no price independent input is specified, changes to demand per account statistics may still result from price elasticity impacts; resulting growth rates for each customer class are shown to the right

Together, the price-independent consumption adjustments and price elasticity impacts of proposed rate adjustments result in decreased water demand per account for all customer classes except for

<sup>2 -</sup> Residential customers are currently charged a flat rate for wastewater service

the Hotel class (3.0 percent increase) and Government class (0.4 percent increase). As shown in Table 7-8, water demand per customer decreases roughly -1.0 percent for Residential, Commercial-3, Agriculture, and Irrigation customers. Commercial-1 water use decreases -1.4 percent and Commercial-2 customers see the largest decrease at -5.4 percent per year.

Forecasts of water sales and billed wastewater volumes reflect the countervailing impacts of customer growth and water consumption trends per account. Water sales are assumed to decline -0.33 percent per year and -1.6 percent over the forecast period; from 5.12 billion gallons in FY 2024 to 5.04 billion gallons in FY 2029. Conversely, billable wastewater volumes are expected to increase more than 80 percent as the new rate design is implemented and residential customers begin paying a volumetric rate for wastewater service. Billable wastewater flows also include the Navy (conservatively forecasted to grow at 2% per year 64) and leachate customers (no growth).

## 7.9 Forecasted Operating Results

Table 7-9 presents cash flow projections for the System. A viable financial plan is developed to ensure compliance with GWA's policy to maintain targeted operating reserves of 120 days of annual operating expense, to achieve minimum 1.25x covenanted debt service coverage, and to support proposed debt issuances and other financing requirements associated with the Authority's capital improvement program.

### 7.9.1 Revenues

Revenue forecasts include water and wastewater rate revenues (including base charge and volumetric components), legislative surcharge revenues, other miscellaneous revenues, and interest income on unrestricted accounts.

As stated earlier, water and wastewater revenue forecasts anticipate the implementation of the PUC-approved rate design in FY 2026<sup>65</sup> and forecasted billing determinants outlined in Section 7.8.1. Proposed rates within the new structure were chosen to yield rate revenue levels consistent with GWA's recently adjudicated five-year rate plan, or \$147.1 million. This FY 2026 revenue estimate represents a 10.4 percent increase over FY 2025 rate revenue estimates. Beyond FY 2026, rate revenues are projected to increase an average of 7.7 percent per year based on future rate adjustments, reaching \$183.8 million by the end of the forecast period. Rate revenue projections reflect annual adjustments equal to -2.1 percent to account for bad debt expense (composed of -0.74 percent in post-billing activities and -1.36 percent in other accounting adjustments).

The surcharge is currently applied to all non-lifeline rate components and is updated annually to ensure adequate recovery of retiree benefits mandated by the Guam legislature. Beginning in FY 2026, the surcharge will be applied to all rate components. <sup>66</sup> Surcharge revenues are expected to range from \$4.0 to \$5.7 million over the forecast period.

<sup>64</sup> Navy's wastewater contributions to the System will depend on the timing and magnitude of the proposed buildout.

<sup>65</sup> Guam PUC Rate Decision in the Matter of Guam Waterworks Authority's FY2025 – 2029 Application and Request for Rate Increases, Exhibit 1, dated September 24, 2024.

<sup>&</sup>lt;sup>66</sup> GWA proposed reducing the surcharge percentage from 3.5 percent to 3.1 percent as part of the FY 2026 rate request.

Table 7-9. Projected Sources and Uses of Cash, Operating Fund

	F	Y 2025	F	FY 2026 FY 202		Y 2027	FY 2028		FY 2028		FY 2029	
Beginning Cash Balance 1.2	\$	52.11	\$	41.16	\$	36.07	\$	33.71	\$	34.74		
Water Rate Revenues <sup>3</sup>	\$	86.09	\$	92.87	\$	99.62	\$	107.45	\$	115.99		
Wastewater Rate Revenues <sup>3</sup>		47.19		54.27		58.21		62.79		67.78		
Legislative Surcharge		4.01		4.56		4.89		5.28		5.70		
Other Revenues		0.52		0.52		0.52		0.52		0.52		
Interest Income <sup>4</sup>		2.09		1.20		0.99		0.96		0.93		
Rate Stabilization Fund Transfers <sup>5</sup>		(9.50)		-		(5.00)		(6.00)		_		
Total Sources	\$	130.40	\$	153.42	\$	159.23	\$	170.98	\$	190.91		
Power Purchases <sup>6</sup>		21.99		17.60		18.02		18.43		18.49		
Water Purchases <sup>7</sup>		9.06		6.96		6.96		6.96		6.96		
Salaries & Benefits		33.37		37.36		38.47		39.98		41.43		
Admin & General <sup>8</sup>		10.38		13.31		13.77		14.76		15.71		
Contractual Expense		6.89		9.99		9.75		9.24		9.45		
Retiree Expenses		4.48		4.62		4.76		4.90		5.05		
Total Operating Expense	\$	86.16	\$	89.84	\$	91.73	\$	94.26	\$	97.09		
Short-Term Financing, Fees <sup>9</sup>		0.27		0.38		0.36		0.37		0.08		
Short-Term Financing, Interest <sup>10</sup>		0.07		1.16		1.31		1.24		1.33		
Existing Debt Service		37.85		37.85		37.85		39.06		39.79		
New Debt Service, Series 2025 Bonds <sup>11</sup>		-		12.28		13.35		13.35		13.35		
New Debt Service, Series 2027 Bonds <sup>12</sup>		-		-		-		3.67		3.99		
New Debt Service, Series 2028 Bonds <sup>13</sup>		-		-		-		-		12.95		
Internally-Funded Capital (IFCIP)		17.00		17.00		17.00		18.00		19.00		
Total Uses	\$	141.35	\$	158.51	\$	161.59	\$	169.96	\$	187.57		
Ending Cash Balance	\$	41.16	\$	36.07	\$	33.71	\$	34.74	\$	38.08		

<sup>1 -</sup> Numbers in millions; some calculation discrepancies may exist due to rounding

- 6 Forecasted power purchases reflect anticipated FY 2026 cost savings associated with the new Ukudu power plant
- 7 Estimated water purchase costs account for forecasted purchase volumes and reduced Navy water rates
- 8 Although budgeted within this cost category, bad debt expense is included as an offset to rate revenues in this table (consistent with the audited financial statements of GWA)
- 9 Assumes GWA establishes a two-year, \$75 million short-term financing instrument in mid-calendar year 2025 to facilitate financing of priority capital projects; then renews the short-term financing in 2027 for an additional two-year period
- 10 Interest expense on short-term financing instruments based on the timing of projected capital project expenditures
- 11 Assumes revenue bonds with project fund proceeds totaling \$250 million are issued mid-calendar year 2025
- 12 Assumes revenue bonds (\$75 million in project fund proceeds) are issued mid-calendar year 2027 to provide substitute encumbrance capacity and pay off the outstanding loan balance for the 2025 short-term financing instrument
- 13 Assumes revenue bonds with project fund proceeds totaling \$265 million are issued in 2028

<sup>2 -</sup> Represents the unrestricted cash balance of GWA's operating funds

<sup>3 -</sup> Water and wastewater rate revenues are aligned with the PUC-approved FY 2025 through FY 2029 Rate Plan (Docket 24-05) and reflect anticipated bad debt expense and other post-billing adjustments

<sup>4 -</sup> Includes only interest earnings that may be considered for calculation of debt service coverage (i.e. excludes interest earnings on restricted accounts)

<sup>5 -</sup> Negative amounts indicate transfers to the Rate Stabilization Fund from the operating fund, which results in a reduction of coverage in the transfer year; positive amounts represent transfers from the RSF to GWA's operating funds

Other revenues of the Authority consist of various miscellaneous revenue sources including new meter installation fees, service reconnection fees, returned check fees, penalties for illegal system connections, and wastewater dumping fees. These revenues are a relatively small component, estimated to be \$0.5 million per year over the forecast period.

Interest income on unrestricted operating accounts was \$3.0 million in FY 2024 and is projected to decline to approximately \$1.0 million over the forecast period as interest rates return to historic averages. Interest income projections are based on a mid-year average of the beginning and ending balances of available reserves within GWA's operating accounts.

GWA established a rate stabilization fund (RSF) in 2021, which it has drawn upon during recent fiscal years to mitigate the impact of unexpected expenditures (see Section 7.2). The balance of the fund as of the beginning of FY 2025 was \$950,000. Transfers from the RSF provide a mechanism to manage unexpected costs and corresponding fluctuations in financial results, allowing GWA to avoid unplanned rate increases. Rate stabilization fund (RSF) transfers, either from the operating fund to the RSF or from the RSF to the operating fund, alter revenues available for debt service. Transfers to the RSF—which typically occur during years with strong financial results—represent a deferred recognition of revenues while transfers from the RSF increase revenues available for debt service as revenues from earlier periods are recognized. Based on projected performance, the Authority may elect to transfer operating revenues into the RSF in the current fiscal year (\$9.5 million), FY 2027 (\$5.0 million), and FY 2028 (\$6.0 million) in order to mitigate future rate adjustments. RSF transfers will be adjusted based on actual financial performance during the forecast period.

In FY 2029, total projected System revenues of \$190.9 million consist of water rate revenues (60.7 percent) wastewater rate revenues (35.5 percent), surcharge revenues (3.0 percent), other revenues (0.3 percent), and interest income (0.5 percent). Total System revenues, under the billing determinant and rate adjustment assumptions delineated above, are projected to increase 36.5 percent, from \$139.9 million in FY 2025 to \$190.9 million in FY 2029 (exclusive of RSF transfers).

## 7.9.2 **Operating Expenses**

GWA is responsible for the proper operations and maintenance of its water and wastewater assets. The Authority's operating budget is broken down into six general categories:

- 1. Power Purchases
- Water Purchases
- 3. Salaries and Benefits
- 4. Administrative and General
- 5. Contractual Expenses
- 6. Retiree Expenses

**Power Purchases.** Pumping and treatment of water and wastewater requires significant electrical use, typically making water and wastewater utilities among the largest customers of a power utility. For GWA's system, electrical requirements are potentially more substantial than for other similarly sized systems. The Authority's service area, the way the System was developed over time (including, for

example, its receipt of former military facilities), and the need to pump and move water and wastewater from numerous wells all contribute to significant power costs. Forecasted power purchases are expected to decrease roughly 20 percent in FY 2026, from \$22.0 million to \$17.6 million, to reflect anticipated cost savings associated with the new Ukudu power plant. Beyond FY 2026, power purchase expenses are expected to increase 1.6 percent per year. FY 2029 power purchase expense is projected to remain below FY 2025 values by \$3.5 million.

Water Purchases. Pursuant to a Memorandum of Agreement, the U.S. Navy supplies water through its water system to GWA for distribution and resale to non-military customers. Total purchases from the U.S. Navy for FY 2023 and FY 2024 were \$7.0 million and \$8.7 million. Water purchase expenses reflect implementation of Navy water rate revisions which remain volatile as the Department of Defense increased the water cost per kgal from \$10.36 to \$24.07 in FY 2024 then subsequently reduced the water cost per kgal from \$24.07 to \$10.89 in FY 2025. Water purchase expenses are projected to decrease by \$2.1 million from FY 2025 to FY 2026 (approximately 23 percent) and remain at \$7.0 million annually through the remainder of the forecast period due primarily to decreased purchase volumes. GWA anticipates working to ensure that future Navy water rate increases will be offset, to the extent practicable, by further reductions in purchase volumes to be achieved through GWA's ongoing Water Loss Control Program (see Sections 1.5.5 and 2.6.2).

Salaries and Benefits. The Salaries and Benefits budget consists of various forms of compensation to GWA employees including (1) regular, differential and hazardous pay, (2) pension costs and other benefits, and (3) overtime pay. Personnel budgets in the industry are typically affected by local workforce availability, medical insurance costs, pension benefits and other post-employment benefits (OPEB). Like most utilities, the Authority's largest operational cost is labor. The Salaries and Benefits budget represents nearly 40 percent of total (cash) operations-related costs in FY 2025. Salaries and wages expenses are projected to increase by \$4.0 million in FY 2026 with completion of GWA's approved salary migration program, pay for performance adjustments, and planned staffing additions. In response to a 2023 market review study, GWA is currently implementing various salary adjustments to incentivize and retain top performing employees. The study, which compared U.S. mainland water utility salaries to the existing GWA pay scale for all positions, indicated that GWA had regressed from the 20th market percentile in 2017 to the 5th percentile in 2022. The salary migration plan will eventually move GWA to the 50th market percentile by FY 2029. The salary migration and pay for performance programs will address unusually high employee turnover at the Authority, which averaged 11.9 percent from FY 2021 to FY 2023 and was 15.9 percent in FY 2024. This upward trend in GWA employees accepting employment elsewhere—either with the federal government or its contractors, other Guam agencies, or simply transferring off-island-leads to increased costs and negatively impacts GWA's operations, The salary migration and pay for performance programs are expected to reduce employee turnover and preserve the institutional knowledge of GWA's systems, processes, and infrastructure that is so critical to the efficient and effective delivery of water and wastewater service. 67 Salaries and benefits are projected to increase thereafter at 3.5 percent per annum from \$37.4 million in FY 2026 to \$41.4 million in FY 2029. Recent increased expenses will provide staffing to implement or expand programs and initiatives (like asset management and water loss control), enable planned improvements in service levels, and enhance internal construction capability to enable selfperformance of relatively smaller line replacement capital projects. GWA is currently authorized to hire

67 GWA projects a turnover rate of 8.6 percent in FY 2025, suggesting the programs are already beginning to reduce employee turnover.

personnel at the salary and benefit expenditure level noted above for FY 2026, which can accommodate 374 full-time equivalent (FTE) positions.

Administrative and General Expense. This cost category includes cost items such as sludge removal, chemicals, materials and supplies, transportation, communication, claims, insurance, training, advertising, and regulatory expense, among others. Administrative and General expenses are projected to increase by \$2.9 million from FY 2025 to FY 2026 due to planned installation of granular activated carbon to an additional four water production plants, increased sludge production, and replenishment of inventory for materials and supplies in conjunction with GWA's Asset Management Plan. These expenses are projected to increase thereafter by 5.7 percent annually, from \$13.3 million in FY 2026 to \$15.7 million in FY 2029.

Contractual Expense. Contractual expense includes audit and computer maintenance costs, building and equipment rentals, legal, laboratory and other costs. Contractual expenses are projected to increase \$3.1 million in FY 2026 to \$10.0 million, then decline during the forecast period to \$9.5 million by FY 2029 (an average annual growth rate of -1.8 percent). The forecasted increase will enable GWA to procure and upgrade its payroll system, further invest in GIS software, and maintain the current level of Information Technology support required to operate effectively and securely.

Retiree Expense. As required by GovGuam's Annual Appropriations Act, GWA must reimburse GovGuam's Department of Administration for certain supplemental and healthcare benefits paid to retirees. This contribution to the Government of Guam, along with other post-employment benefits and health care costs, are the primary components of retiree expense. As part of the existing rate structure, GWA assesses a surcharge to recover costs associated with retiree expense (often referred to as the legislative surcharge). The current surcharge (FY 2025) is 3.5 percent but is expected to drop to 3.1 percent for FY 2026 with the implementation of the PUC-approved rate design. Retiree expenses are projected to increase 3.1 percent per annum, from \$4.5 million in FY 2026 to \$5.1 million in FY 2029, reflecting the rising costs of post-employment benefits, particularly healthcare costs pursuant to GWA's inclusion in the Government of Guam Group Health Insurance Enrollment for both active and retired employees.

Combined operating and maintenance expense for the System is projected to increase \$10.9 million over the forecast period (annual compounded growth of 3.0 percent), from \$86.2 million in FY 2025 to \$97.1 million by FY 2029. This increase reflects the reduction in power purchase expense attributed to the new, more efficient Ukudu power plant, reduced water rates for the purchase of Navy water, installation of granular activated carbon to additional water production plants, the completion of GWA's salary migration plan, and other cost assumptions outlined in this section.

### 7.9.3 **Debt Service**

Forecasted debt service comprises three primary components: existing debt service, interest expense on loans issued against short-term construction financing instruments, and debt service on proposed revenue bonds (including take-out bonds that will be issued to repay and restore the encumbrance capacity of the short-term financing instruments).

Existing debt service includes repayment for six prior revenue bond issuances, including the Series 2016 Revenue Bonds, the Series 2017 Refunding Revenue Bonds, the Series 2020A Revenue Bonds, the Series 2020B Refunding Revenue Bonds, the Series 2024A Refunding Revenue Bonds, and the

Series 2024B Refunding Revenue Bonds. Debt service on existing revenue bonds is \$37.9 million in FY 2025 and is expected to increase to \$39.8 million by FY 2029.

GWA is currently working to secure a \$75 million loan from a commercial bank in the form of a revolving credit agreement. <sup>68</sup> The short-term construction financing instrument will facilitate encumbrances of high priority projects, enabling GWA to begin the procurement process and meet project delivery objectives. The Authority's capital planning group has estimated the timing and expenditure patterns of projects that will be encumbered against the short-term financing instrument, which serves as the basis for estimated loan issuance and forecasted interest expenses. The borrowing rate for debt issued against the instrument is assumed to be 4.86 percent and the fee for the unused portion of the line of credit is assumed at 75 basis points. The two-year instrument is expected to be taken out in FY 2027 with revenue bonds that will repay any outstanding debt obligations and provide substitute funding for projects previously encumbered against the line of credit. A second two-year short-term financing instrument will be put in place in 2027, with similar terms, and taken out with revenue bonds issued in FY 2029 when it expires. <sup>69</sup>

Annual interest expense for the short-term construction financing instrument is expected to be minimal in FY 2025<sup>70</sup> but increase to \$1.2 million by FY 2026 as GWA begins to issue debt against the line of credit. Interest expense is expected to fluctuate between that level and \$1.3 million over the forecast period based on the timing of capital expenditures and the assumed renewal of the line of credit in FY 2027. Short-term construction financing fees—which are not considered debt service but do represent cash requirements of the System—are expected to average \$0.4 million from FY 2026 through FY 2028.

GWA's financial plan anticipates the issuance of new money revenue bonds in FY 2025 (Series 2025 bonds, project fund proceeds of \$250 million) and FY 2028 (Series 2028 Bonds project fund proceeds of \$265 million). In addition, revenue bonds will be issued in FY 2027 (Series 2027 Bonds) and FY 2029 (Series 2029 Bonds), each with project fund proceeds of \$75 million, to take out the short-term financing instruments as discussed earlier in this section. Proposed revenue bonds are assumed to be issued at interest rates between 5.00 and 5.25 percent with a 30-year amortization period, 1.52 percent costs of issuance, and a debt service reserve requirement equal to 6.91 percent and 6.64 percent of bond proceeds, for the Series 2025 and Series 2028 Bonds, respectively. The Series 2025 Bonds debt service includes interest only payments for the first five years, while repayment schedules for the Series 2027 Bonds and Series 2028 Bonds assume three years of principal deferral.

Repayment obligations for the proposed Series 2025 Bonds are expected to begin in FY 2026 and total \$12.3 million. Interest only payments will increase to \$13.4 million during the remainder of the forecast period. Debt service on the Series 2027 take-out bonds will begin in FY 2028 at \$3.7 million and increase to \$4.0 million the following year. For the Series 2028 Bonds, the first annual payment

<sup>&</sup>lt;sup>68</sup> To the extent that the actual 2025 short-term financing amount varies from \$75 million, GWA may make adjustments to the timing and magnitude of future debt issuances within the plan of finance.

<sup>&</sup>lt;sup>69</sup> Repayment of the Series 2029 Bonds is expected to begin outside of the forecast period for this report, in FY 2030.

<sup>&</sup>lt;sup>70</sup> The short-term construction financing instrument, when implemented during the next couple of months, will only be in place for the final months of FY 2025.

 $<sup>^{71}</sup>$  Repayment of the Series 2029 Bonds is expected to begin outside of the forecast period for this report, in FY 2030.

<sup>&</sup>lt;sup>72</sup> Assumed rates and terms as of May 1, 2025.

of \$13.0 million will begin in the final year of the forecast period. Aggregate debt service on proposed revenue bonds—including take-out bonds in connection with short-term construction financing instruments—is expected to increase from \$12.3 million in FY 2026 to \$30.3 million in FY 2029.

Total debt service, including interest expense associated with debt issued against short-term instruments, is expected to increase from \$37.9 million in FY 2025 to \$71.4 million in FY 2029, an increase of 88.4 percent. The increase in the Authority's debt burden is attributed to the significant capital financing requirements—almost \$900 million over the forecast period—imposed by the Partial Consent Decree and other critical initiatives (like water loss control).

## 7.9.4 Current Revenue Financing of Capital Improvements

As shown in Table 7-5, the financing plan assumes that \$88 million will be transferred from GWA's operating accounts over the forecast period to fund future capital encumbrances between FY 2025 and FY 2029. Annual current revenue financing amounts, or IFCIP, increase slightly based on the projected performance of the System. IFCIP transfers are expected to range from \$17.0 million in FY 2025 to \$19.0 million in FY 2029. The Authority's capital financing plan fully funds projected encumbrance requirements, including those associated with the Partial Consent Decree, while maintaining debt service coverage and operating reserves above established performance targets.

### 7.9.5 Operating Reserves

To provide adequate working capital for operations, GWA targets to maintain operating reserves equal to 120 days of annual operating expense. The operating reserves provide a buffer against unforeseen operational circumstances (like Typhoon Mawar) and ensure the Authority can meet unexpected operational costs and other needs of the System. At the beginning of FY 2025, GWA's combined operating reserve total was \$52.1 million, roughly 180 days of the previous year's budgeted 0&M expense. The projected end-of-year operating reserves for the Authority range from \$33.7 million to \$41.2 million, or between 132 and 172 days of 0&M, over the forecast period and reflects the effect of proposed rate adjustments and corresponding rate revenue levels in GWA's recently adjudicated five-year rate plan, 0&M expense escalation, and debt service on existing and proposed revenue bonds.

## 7.10 Projected Debt Service Coverage

Table 7-10 presents the projected performance of the Authority relative to its targeted debt service coverage metrics, including projected net operating revenues, expenses, debt service, and debt service coverage through FY 2029.

Based on GWA's revenue and expense assumptions summarized in this report, net operating revenues of the System are expected to increase from \$51.7 million in FY 2025 to \$92.9 million in FY 2029, an increase of nearly 80 percent. Various revenue and expense adjustments are made to net operating revenues in order to establish revenues available for debt service. Interest income from unrestricted operating funds may be considered pledged revenues and is added to net operating revenues. On the expense side, certain cost of living adjustments—components of GWA's retiree expense—are excluded from operating expense (and therefore added back to net operating revenues). Similarly, and consistent with other utilities, the Authority capitalizes a portion of labor costs related to capital project delivery (representing a reduction in O&M expense). The bulk of this cost is attributed to project managers and other GWA personnel that support implementation of the capital program.

Table 7-10. Projected Debt Service Coverage

	F	Y 2025	F	Y 2026	F	Y 2027	ı	FY 2028	F	Y 2029
Rate Revenues <sup>1</sup>	\$	133.29	\$	147.14	\$	157.84	\$	170.23	\$	183.77
Legislative Surcharge		4.01		4.56		4.89		5.28		5.70
Other Revenues		0.52		0.52		0.52		0.52		0.52
Total Operating Revenues	\$	137.81	\$	152.22	\$	163.24	\$	176.02	\$	189.98
Operating Expenses		86.16		89.84		91.73		94.26		97.09
Net Operating Revenues	\$	51.65	\$	62.38	\$	71.52	\$	81.76	\$	92.89
Interest Income <sup>2</sup>		2.09		1.20		0.99		0.96		0.93
Cost-of-Living Allowance <sup>3</sup>		0.70		0.71		0.72		0.72		0.73
Capitalized Labor Expense <sup>4</sup>		4.34		4.86		5.00		5.20		5.39
Regulatory Asset Amortization <sup>5</sup>		0.84		0.84		(1.28)		(1.28)		(1.28)
Rate Stabilization Fund Transfers (To) <sup>6</sup>		(9.50)		-		(5.00)		(6.00)		-
Revenues Available for Debt Service	\$	50.12	\$	69.99	\$	71.95	\$	81.36	\$	98.66
Existing Debt Service		37.85		37.85		37.85		39.06		39.79
Series 2025 Debt Service <sup>7</sup>		-		12.28		13.35		13.35		13.35
Series 2027 Debt Service <sup>8</sup>		-		-		-		3.67		3.99
Series 2028 Debt Service9		-		-		-		-		12.95
Short-Term Financing Interest <sup>10</sup>		0.07		1.16		1.31		1.24		1.33
Total Debt Service	\$	37.92	\$	51.28	\$	52.50	\$	57.32	\$	71.40
Total Debt Service Coverage Ratio		1.32		1.36		1.37		1.42		1.38
EOY Balance, Rate Stabilization Fund	\$	10.45	\$	10.45	\$	15.45	\$	21.45	\$	21.45

- 1 All numbers in millions; slight calculation discrepancies may exist due to rounding.
- 2 Includes only interest earnings that may be considered for calculation of debt service coverage (excludes interest earnings on restricted accounts).
- 3 The cost of living allowance, a component of Retiree expense, is excluded from the coverage calculation.
- 4 For purposes of calculating coverage, certain personnel costs related to the delivery of capital improvement projects are capitalized (deducted from O&M, which increases Revenues Available for Debt Service).
- 5 Planned amortization of annual legal expenses in FY 2025 (\$1.5 million) and FY 2026 (\$1.5 million) related to the CoreTech litigation will be amortized at 3% beginning in FY 2027; \$3.2 million associated with the FY 2020 to FY 2024 rate case will be amortized at 3% between FY 2025 and FY 2029.
- 6 Negative amounts indicate transfers to the Rate Stabilization Fund from the operating fund, which results in a reduction of coverage in the transfer year; positive amounts represent transfers from the RSF to GWA's operating funds.
- 7 Assumes revenue bonds with project fund proceeds totaling \$250 million are issued mid-calendar year 2025.
- 8 Assumes \$75 million revenue bonds are issued mid-calendar year 2027 to provide substitute encumbrance capacity and pay off the outstanding loan balance for the 2025 short-term construction financing instrument.
- 9 Assumes revenue bonds with project fund proceeds totaling \$265 million are issued in 2028.
- 10 Projected interest expense on GWA's short-term financing instruments based on the estimated timing of capital project expenditures and related loan issuance.

Other adjustments include amortization of regulatory assets and RSF transfers. Consistent with GWA's five-year rate plan, the Authority previously created a regulatory asset associated with the prior five-year rate plan (FY 2020 through FY 2024) and is amortizing those costs over the forecast period at

\$659,200 per year. The recognition of these costs represents a decrease in revenues available for debt service. GWA anticipates creating a regulatory asset for certain legal expenses—roughly \$1.5 million per year incurred in FY 2025 and FY 2026—that are related to specific ongoing litigation. These costs will then be amortized over a five-year period beginning in FY 2027.<sup>73</sup>

Transfers from the RSF provide a mechanism to manage unexpected costs and corresponding fluctuations in financial results, allowing GWA to avoid unplanned rate increases. Rate stabilization fund (RSF) transfers, either from the operating fund to the RSF or from the RSF to the operating fund, alter revenues available for debt service. Based on projected performance, the Authority may elect to transfer operating revenues into the RSF in the current fiscal year (\$9.5 million), FY 2027 (\$5.0 million), and FY 2028 (\$6.0 million) in order to mitigate future rate adjustments. Actual RSF transfers may be adjusted based on GWA's financial performance during the forecast period.

After adjustments, revenues available for debt service is expected to nearly double, increasing from \$50.1 million in FY 2025 to \$98.7 million in FY 2029. Total debt service, including repayment obligations for existing and proposed revenue bonds as well as interest expense on the short-term financing instruments, is anticipated to increase 88.4 percent, from \$37.9 million in FY 2025 to \$71.4 million in FY 2029.

For new debt issues, the Authority has a minimum coverage requirement of 1.25x average annual debt service. Debt service coverage is projected to range from 1.32x in FY 2025 to 1.42x in FY 2028, with coverage at 1.38x at the end of the forecast period. The projected coverage ratio demonstrates that GWA's financing plan will fund nearly \$900 million of project encumbrance requirements while meeting minimum operating reserve and fund balance targets and exceeding covenanted debt service coverage requirements.<sup>74</sup>

## 7.11 Financial Performance Summary

Projections of revenues, expenses, debt service, and debt service coverage indicate the financial feasibility of GWA's projected operating expenses and five-year capital improvement plan, including its funding of consent decree projects and needed System investments to control water loss and improve reliability. The projection of the financial performance of the System for FY 2025 through FY 2029 is summarized as follows:

- GWA's capital improvement program reflects priority needs of the System and, after adjusting for inflation, is expected to require encumbrances of \$898.8 million between FY 2025 and FY 2029. These capital requirements will be funded through six sources: new money revenue bonds (57.2 percent); short-term construction financing (16.7 percent); grants from the EPA (33.2 percent); net operating revenues, or IFCIP (9.8 percent); system development charge revenues (0.4 percent); and interest earnings that may be used to fund projects (4.5 percent).
- The Authority has demonstrated a strong commitment to rate adjustments as demonstrated by (1) historical annual increases of 7.2 percent from FY 2020 through FY 2025 and (2) rate revenue

Amortization of regulatory assets remains under review and additional description or disclosure may be provided. Recharacterization of these costs would have marginal impacts on projected coverage.

<sup>74</sup> In the event that the PUC approves rates for FY 2026 (or subsequent annual True-Up years) that are projected to achieve revenue recovery levels lower than that delineated in the FY 2025-2029 Five-Year Financial Plan (Docket 24-05), GWA will adjust 0&M expenses and planned capital financing to ensure compliance with targeted debt service coverage and liquidity metrics.

levels that are anticipated to increase 8.4 percent per year (consistent with GWA's recently adjudicated five-year rate plan) from FY 2025 through the end of the forecast period. The resulting net revenues of the System will support existing and proposed debt service and enable financing of capital encumbrance requirements.

- Total operating revenues are projected to increase 37.9 percent, from \$137.8 million to \$190.0 million between FY 2025 and FY 2029 primarily as a result of water and wastewater rate adjustments and despite a 1.6 percent decline in forecasted water sales.
- O&M expenses, which reflect GWA's salary migration plan and reductions in water and power purchase expense, are projected to increase 12.7 percent over the forecast period, from \$86.2 million in FY 2025 to \$97.1 million by FY 2029.
- Total debt service—including debt service associated with proposed new money revenue bonds in 2025 and 2028 (combined project fund proceeds of \$515 million), interest expense associated with debt issued against short-term construction financing instruments, and take-out revenue bonds to repay those obligations—is projected to increase 88.3 percent over the forecast period, from \$37.9 million in FY 2025 to \$71.4 million in FY 2029.
- The Authority expects to generate a total of \$88.0 million in net operating revenues that may be used to finance capital encumbrance requirements during the forecast period, with annual IFCIP transfers ranging between \$17.0 and \$19.0 million.
- Revenues available for debt service are projected to be sufficient to meet future debt service obligations, including the covenanted 1.25x coverage requirement. Debt service coverage is projected to range from 1.32x in FY 2025 to 1.42x in FY 2028, with coverage at 1.38x by the end of the forecast period. The projected coverage ratio demonstrates the feasibility of the financing plan and GWA's ability to support the proposed revenue bonds outlined herein. 76

<sup>&</sup>lt;sup>75</sup> Annual increases are reported on a compounded basis; historical rate statistic reported for non-lifeline rate components.

<sup>76</sup> In the event that the PUC approves rates for FY 2026 (or subsequent annual True-Up years) that are projected to achieve revenue recovery levels lower than that delineated in the FY 2025-2029 Five-Year Financial Plan (Docket 24-05), GWA will adjust 0&M expenses and planned capital financing to ensure compliance with targeted debt service coverage and liquidity metrics.

## 8.0 Conclusions

Galardi Rothstein Group, using information provided by the Authority, has conducted a detailed review of the System, analyzed historical financial performance, and developed projections of revenues, operating expenses, and capital project encumbrance requirements for the forecast period FY 2025 through FY 2029. These projections have been used to evaluate the financial feasibility of the Series 2025 Bonds and result in the following general findings and conclusions:

- GWA's capital improvement program reflects priority needs of the System and comprises projects
  that will address regulatory requirements (such as the 2024 Partial Consent Decree), reduce
  System water loss, and provide for efficient renewal and replacement of aging infrastructure
  informed by GWA's asset management program.
- 2. GWA's financing plan reflects a balanced approach for capital encumbrance requirements, using both short- and long-term debt instruments, net operating revenues of the System, grants, and other revenue sources to fund nearly \$900 million of capital encumbrance requirements over the five-year forecast period.
- 3. The Authority has demonstrated a strong commitment to rate adjustments as demonstrated by recent historical increases and PUC-approved FY 2025 through FY 2029 rate revenue levels identified in GWA's recently adjudicated five-year rate plan. The resulting revenues of the System will support forecasted operating expenses as well as existing and future debt service associated with proposed debt issuance delineated in the capital financing plan.
- 4. GWA is successfully navigating a changing regulatory landscape through a proactive response to emerging contaminants and its successful completion of negotiations related to the 2024 Partial Consent Decree.
- 5. The financial projections reported herein demonstrate that GWA can support the Series 2025 Bonds, as well as other proposed debt issuances, from net operating revenues of the System. Although annual debt service is projected to increase almost 90 percent, debt service coverage is projected to average 1.37x over the forecast period, ranging from 1.32x to 1.42x. By the final year of the forecast period, the Authority is projected to achieve coverage of 1.38x, above the minimum 1.25x requirement set forth in the Indenture.
- 6. In summary, Galardi Rothstein Group affirms the financial feasibility of the Authority's capital financing strategy, including issuance of the Series 2025 Bonds, based on rate revenue levels included in the recently adjudicated five-year rate plan, GWA's forecasted expense to operate and maintain the System, and projected debt service and other costs associated with existing and proposed debt obligations summarized in this report.<sup>77</sup>

<sup>&</sup>lt;sup>77</sup> In the event that the PUC approves rates for FY 2026 (or subsequent annual True-Up years) that are projected to achieve revenue recovery levels lower than that delineated in the FY 2025-2029 Five-Year Financial Plan (Docket 24-05), GWA will adjust 0&M expenses and planned capital financing to ensure compliance with targeted debt service coverage and liquidity metrics.

# **Appendix I - Proposed FY 2026 Rates**

	FY 2024	increase	FY 2025	change	FY 2026
Proposed Rate Increase		11.5%		varies 1	
Water Rates					
Monthly Base Charge <sup>2</sup>					
3/4 inch	\$30.62	\$3.52	\$34.14	\$4.49	\$38.63
1 inch	\$35.73	\$4.11	\$39.84	\$5.24	\$45.08
1.5 inch	\$56.06	\$6.45	\$62.51	\$8.22	\$70.7
2 inch	\$71.41	\$8.21	\$79.62	\$10.48	\$90.1
3 inch	\$127.55	\$14.67	\$142.22	\$18.71	\$160.9
4 inch	\$178.55	\$20.53	\$199.08	\$26.20	\$225.2
6 inch	\$331.57	\$38.13	\$369.70	\$48.64	\$418.3
8 inch	\$484.59	\$55.73	\$540.32	\$71.09	\$611.4
10 inch	\$663.15	\$76.26	\$739.41	\$97.29	\$836.7
12 inch	\$790.63	\$90.92	\$881.55	\$115.99	\$997.5
Volumetric Rates					
Residential					
Tier 1 Threshold	5 kgals		5 kgals		3 kgals
Tier 2 Threshold	above		above		10 kgals
Tier 1 Rate	\$3.51	\$0.40	\$3.91	\$0.51	\$4.42
Tier 2 Rate	\$14.58	\$1.68	\$16.26	-\$6.80	\$9.46
Tier 3 Rate					\$18.93
Non-Residential <sup>3</sup>					
Commercial-1	\$18.12	\$2.08	\$20.20	\$3.13	\$23.3
Commercial-2	\$18.12	\$2.08	\$20.20	\$3.13	\$23.3
Commercial-3	\$18.12	\$2.08	\$20.20	\$3.13	\$23.3
Hotels	\$18.12	\$2.08	\$20.20	\$3.13	\$23.3
Government	\$18.12	\$2.08	\$20.20	\$3.13	\$23.3
GWA	\$18.12	\$2.08	\$20.20	\$3.13	\$23.3
Agriculture	\$5.82	\$0.67	\$6.49	\$1.00	\$7.4
Irrigation	\$6.02	\$0.69	\$6.71	\$1.05	\$7.7
Wastewater Rates					
Monthly Base Charge <sup>4</sup>					
Residential Flat Rate	\$32.14	\$3.70	\$35.84	-\$35.84	\$0.0
3/4 inch	\$0.00	\$0.00	\$0.00	\$15.14	\$15.1
1 inch	\$0.00	\$0.00	\$0.00	\$17.66	\$17.6
1.5 inch	\$0.00	\$0.00	\$0.00	\$27.72	\$27.7
2 inch	\$0.00	\$0.00	\$0.00	\$35.31	\$35.3
3 inch	\$0.00	\$0.00	\$0.00	\$63.07	\$63.0
4 inch	\$0.00	\$0.00	\$0.00	\$88.28	\$88.2
6 inch	\$0.00	\$0.00	\$0.00	\$163.95	\$163.9
8 inch	\$0.00	\$0.00	\$0.00	\$239.61	\$239.6
10 inch	\$0.00	\$0.00	\$0.00	\$327.90	\$327.9
12 inch	\$0.00	\$0.00	\$0.00	\$390.94	\$390.9
Volumetric Rates					
Residential	\$0.00	\$0.00	\$0.00	\$5.99	\$5.9
Commercial-1	\$9.99	\$1.15	\$11.14	\$1.87	\$13.0
Commercial-2	\$24.34	\$2.80	\$27.14	\$4.57	\$31.7
Commercial-3	\$33.75	\$3.88	\$37.63	\$6.34	\$43.9
Hotels	\$24.34	\$2.80	\$27.14	\$4.57	\$31.7
Government	\$14.28	\$1.64	\$15.92	\$2.68	\$18.6
Leachate	\$14.72	\$1.69	\$16.41	\$2.77	\$19.1
Navy	\$14.28	\$1.64	\$15.92	\$2.68	\$18.6
Legislative Surcharge					
Surcharge <sup>5</sup>	3.80%		3.50%		3.109

<sup>1 -</sup> Per the PUC's Order (see Amended Petition to Approve a New Rate Design Structure, Docket 19-08, March 28, 2024) rate adjustment percentages will vary across components

<sup>2 -</sup> Monthly base charges for the Agriculture customer class are roughly 96.6% of stated base charge

<sup>3 -</sup> Non-residential volumetric water rates are applied to all levels of demand

<sup>4 -</sup> Currently, only residential customers - regardless of meter size - receive the same flat monthly wastewater charge; under the new rate structure, both residential and non-residential customers will receive a monthly base charge based on meter size

<sup>5 -</sup> Beginning in FY 2026, the surcharge will be applied to all rate components (including lifeline rates)

# **Appendix II - FY 2026 Bill Impact Schedule**

	Meter Size	Kgals	FY 2025	Increase	FY 2026 <sup>1</sup>	% Change
Combined Water and	d Wastewater B	ill by Cus	tomer Class			
Residential	3/4 inch	1	\$75.08	(\$10.15)	\$64.93	-13.5%
Residential	3/4 inch	2	\$78.99	(\$4.56)	\$74.43	-5.8%
Residential	3/4 inch	3	\$82.90	\$1.03	\$83.93	1.2%
Residential	3/4 inch	4	\$86.81	\$11.81	\$98.62	13.6%
Residential	3/4 inch	5	\$90.72	\$22.60	\$113.32	24.9%
Residential	3/4 inch	6	\$107.55	\$20.46	\$128.01	19.0%
Residential	3/4 inch	7	\$124.38	\$18.32	\$142.70	14.7%
Residential	3/4 inch	9	\$158.04	\$14.05	\$172.09	8.9%
Residential	3/4 inch	12	\$208.53	\$27.17	\$235.70	13.0%
Residential	3/4 inch	15	\$259.02	\$50.05	\$309.07	19.3%
Commercial-1	3/4 inch	23	\$728.35	\$127.12	\$855.47	17.5%
Commercial-1	1.5 inch	50	\$1,571.24	\$269.46	\$1,840.70	17.1%
Commercial-2	2 inch	270	\$11,794.72	\$1,890.64	\$13,685.36	16.0%
Commercial-3	3/4 inch	41	\$2,169.99	\$358.55	\$2,528.54	16.5%
Hotel	2 inch	400	\$17,433.97	\$2,778.38	\$20,212.35	15.9%
Hotel	4 inch	970	\$42,283.60	\$6,741.09	\$49,024.69	15.9%
Government	3/4 inch	50	\$1,739.77	\$285.39	\$2,025.16	16.4%
Government	1.5 inch	150	\$5,178.01	\$832.67	\$6,010.68	16.1%
Agriculture	3/4 inch	16	\$ 141.61	\$20.42	\$162.03	14.4%
Irrigation	3/4 inch	10	\$ 104.78	\$15.05	\$119.83	14.4%

<sup>1 -</sup> With the exception of the Agriculture and Irrigation customer classes, bill impact calculations assume billable wastewater flows are 80% of water demand for both residential and non-residential customers

### APPENDIX B

### GENERAL INFORMATION REGARDING THE TERRITORY OF GUAM

### APPENDIX A

### GENERAL INFORMATION REGARDING THE TERRITORY OF GUAM

Guam is the westernmost territory of the United States of America (the "U.S."), as well as the largest and southernmost island of the Marianas archipelago, and the largest of the 2,000 islands in Micronesia. Located at 13 degrees north latitude, 144 degrees east longitude in the western Pacific Ocean, the island is about 30 miles long and varies from four to nine miles wide, with a total land area of approximately 212 square miles. Guam is approximately 3,800 miles west-southwest of Honolulu, Hawaii, 1,550 miles south-southeast of Tokyo, Japan and 1,600 miles east of Manila, Philippines. The Mariana Trench, which has the deepest known ocean depth (36,070 feet), extends from northeast to southwest of Guam. The U.S. Census Bureau estimated Guam's population in 2020 was approximately 153,836 (the most recent date for which such information is available).

The island of Guam was formed by an uplift of undersea volcanoes, and consists of two distinct areas of approximately equal size, surrounded by coral reefs near the shore. The northern region of Guam is a high coralline limestone plateau rising up 850 feet above sea level. It contains the northern water lens, which is the main source of fresh water on the island. The southern region of Guam is mountainous with elevations of 700 to 1,200 feet above sea level. Apra Harbor, one of the largest protected deep-water harbors in the world, is located on the western side of Guam.

Guam was first settled approximately 4,000 years ago. Its strategic location in the western Pacific historically made it a desirable property for the world's superpowers. The indigenous Chamorro people first came in contact with Europeans in 1521 when Ferdinand Magellan landed at Guam's Umatac Bay. Miguel Lopez de Legazpi claimed the island for Spain in 1565. Spanish colonization of Guam began in 1668 and lasted until the end of the Spanish-American War in 1898. As outlined in the Treaty of Paris, signed in December 1898, Guam was ceded to the U.S. along with Cuba, Puerto Rico and the Philippines. Guam has since remained under U.S. administration, except for two and a half years of Japanese occupation during World War II. On July 21, 1944, U.S. forces recaptured Guam and reestablished a naval government. In 1950, the U.S. Congress passed the Organic Act of Guam 48 U.S. Code 1421 (the "Organic Act") granting the Chamorro people U.S. citizenship and establishing a civilian government.

Guam's current political status is that of an unincorporated territory of the U.S. The organization and powers of the Government of Guam (the "Government" or "GovGuam") are determined by the Organic Act. The Government consists of three branches: executive, legislative and judicial. A governor ("Governor") and lieutenant governor, elected jointly at large every four years, head the executive branch. The Government maintains a staff of approximately 11,980 employees (as of December 2024, the most recent date for which such information is available) under the direction of the Governor and the Governor's department heads. The unicameral legislature consists of 15 senators elected at large every two years. The judicial branch consists of the Superior Court of Guam, which is the court of general trial jurisdiction, and the Supreme Court of Guam, the court of highest appeal, established in 1996. Guam also has a Federal District Court and is within the jurisdiction of the Ninth Circuit U.S. Court of Appeals and the U.S. Supreme Court. Guam has one non-voting delegate to the U.S. House of Representatives elected at large every two years. The Government is the sole taxing authority in Guam. There are no separate municipal, county, school district or improvement district taxes.

Guam's political status and ability to self-govern have been discussed for decades. In the 1970s, Guam's leaders created special commissions to discuss political status. These commissions recognized the desires of Guam's people and examined Guam's political conditions and the status options available to Guam. There has been no change to Guam's political status yet and Guam remains an unincorporated territory of the U.S. In the late 1990s, the Commission on Decolonization (the "Commission") was established for the implementation and exercise of Chamorro Self-Determination. The Commission was tasked with educating Guam on the three status options available: free association, independence and statehood. While the Commission was inactive for most of the early 2000s, it was re-launched in 2011, and Governor Leon Guerrero appointed a new Commission in February 2019. In 2020, the U.S. Supreme Court announced it would not review a case that could affect the political status of Guam. The order issued means the Ninth Circuit's ruling will stand and Guam's native inhabitants cannot be the sole participants in a political status plebiscite. Governor Leon Guerrero is currently reviewing options to move forward with the Commission.

### **GUAM'S ECONOMY AND ECONOMIC ACTIVITY**

Tourism revenues and U.S. federal and military spending contribute to Guam's economy. Guam's location in the Pacific region, a three- to five-hour flight from many Asian countries, greatly contributes to the diversity of Guam's population and its visitor industry. This geographic feature also provides U.S. military operations with significant flexibility compared to other locations in the Pacific and Asia.

### **Guam Tourism Industry**

Tourism represents a large source of income for Guam's economy. Annual visitor arrivals rose to over 1,000,000 travelers for the first time since 1994, the year prior to the COVID-19 pandemic. The COVID-19 pandemic, however, had a material adverse effect on tourism in Guam, as global travel restrictions led to significant decreases in tourism.

Table A-1 sets forth the annual number of visitors to Guam for Fiscal Years 2019 through 2024.

TABLE A-1 Annual Visitor Arrivals to Guam Fiscal Years 2019 – 2024

Visitor Arrivals	Percent Increase (Decrease)
1,631,049	
757,385	(54)%
61,607	(92)
216,915	252
602,594(1)	178
752,479(1)	25
	1,631,049 757,385 61,607 216,915

<sup>(1)</sup> Preliminary and unaudited. Source: Guam Visitors Bureau

Table A-2 provides a comparison of visitor arrivals by month to Guam for Calendar Years 2019 through 2025year-to-date. Calendar Year 2019 arrivals were comprised of 45% of visitors from South Korea and 41% of visitors from Japan. The slowdown in arrivals from February 2020 to December 2021 is related to the impact of the COVID-19 pandemic, but Guam slowly has regained traction, with Calendar Year 2022 arrivals exceeding Calendar Year 2020 arrivals by 273 visitors. Calendar Year 2022 visitor arrivals improved when compared to Calendar Year 2021. Calendar Year 2023 arrivals exceeded Calendar Year 2022 arrivals by 50%, based on preliminary data from the Guam Visitors Bureau ("GVB").

TABLE A-2 VISITOR ARRIVALS TO GUAM BY MONTH CALENDAR YEARS 2019 – 2025 (1)

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	2023 <sup>(1)</sup>	<b>2024</b> <sup>(1)</sup>	$2025^{(1)}$
January	147,507	157,479	4,526	9,060	56,687	82,670	66,005
February	137,244	116,746	3,478	7,096	56,253	74,154	60,516
March	146,332	35,310	3,716	9,401	65,603	68,623	61,249
April	121,004	1,557	3,814	11,323	55,354	56,773	50,558
May	120,411	1,502	4,352	20,008	44,347	51,420	
June	123,528	2,221	7,438	28,278	17,310	52,757	
July	136,878	1,385	12,860	41,091	52,154	59,931	
August	159,856	2,048	8,675	37,835	67,842	66,926	
September	137,680	2,912	5,735	28,028	52,286	51,380	
October	134,830	2,331	6,416	40,934	54,099	53,077	
November	143,987	2,562	9,615	39,852	60,862	54,231	
December	157,408	2,120	8,764	55,540	73,721	67,203	
Total	1,666,665	328,173	79,389	328,446	656,518	739,145	238,328

<sup>(1)</sup> Preliminary Monthly Visitor Arrival Statistics are compiled from the Guam Customs and Quarantine Mandatory Customs Declaration forms and may exclude Armed Forces Sea arrival statistics. Annual numbers are updated once Armed Forces information is received.

Source: Guam Visitors Bureau

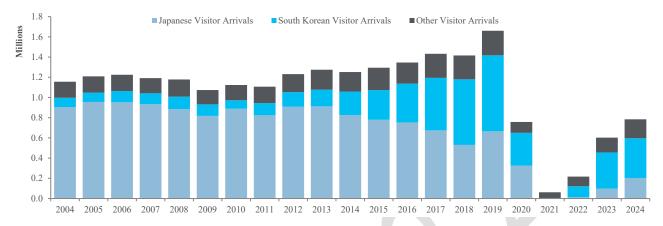
#### **Key Visitor Markets**

Guam receives visitors from a variety of countries and GVB has historically made efforts to further diversify Guam's visitor base. Prior to the COVID-19 pandemic, four of Guam's top five visitor markets included South Korea, Japan, Taiwan and China.

Fiscal Year 2019 was Guam's best year on record for tourism, with 1,631,049 visitor arrivals to Guam. Japanese visitor arrivals totaled 664,784, an increase of 25.4% for Fiscal Year 2019 compared to Fiscal Year 2018. The South Korea market, which had been Guam's top visitor market for the preceding two fiscal years, declined by 2.4% from 752,715 in Fiscal Year 2018 to 734,339 in Fiscal Year 2019. According to GVB, this was mainly due to the loss of Korean Air's non-stop flight to Busan and a decrease of seasonal oversupply from Incheon compared to the prior year. Other markets that showed growth in Fiscal Year 2019 included the U.S. mainland/Hawaii (5.3%), Taiwan (2.9%), the Commonwealth of the Northern Mariana Islands ("CNMI") (9.0%) and the Philippines (8.8%). At the beginning of the COVID-19 pandemic, Guam's visitor market started to experience a decline in visitor arrivals, which lasted through Fiscal Year 2021Guam has seen improvements in Fiscal Years 2022 to 2024, but is still far from its pre-COVID-19 pandemic numbers. In Fiscal Year 2024, there was a 108.0% increase in visitor arrivals from Japan, a 9.6% increase in visitor arrivals from South Korea, a 45.8% decrease in visitor arrivals from Taiwan, a 139.5% increase in visitor arrivals from China, a 3.1% increase in visitor arrivals from U.S. mainland/Hawaii, a 9.7% increase in visitor arrivals from Hong Kong, a 11.3% increase in visitor arrivals from Singapore, and a 29.1% increase in visitor arrivals from other markets combined.

Table A-3

Historical Fiscal Year Japanese and S. Korea Visitor Arrivals as a Percentage of Total Visitor Arrivals



Fiscal Year 2004 to Fiscal Year 2024

Country	2004	<u>2005</u>	2006	<u>2007</u>	2008	2009	2010	2011	2012	2013	2014	<u>2015</u>	2016	<u>2017</u>	2018	2019	2020	2021	2022	2023	2024
Other	14%	14%	12%	14%	15%	15%	14%	16%	16%	14%	17%	15%	16%	15%	16%	14%	14%	91%	44%	24%	21%
S. Korea	8%	9%	9%	10%	10%	8%	10%	13%	13%	17%	22%	28%	34%	42%	49%	45%	43%	3%	50%	60%	52%
Japan	78%	77%	79%	76%	75%	77%	76%	72%	71%	68%	62%	57%	50%	43%	35%	41%	43%	6%	3%	16%	27%

Source: Guam Visitors Bureau

Visitor arrivals from South Korea grew significantly over the five fiscal years preceding the start of the COVID-19 pandemic, with much of the increase attributed to additional flight service from South Korea.

### Visa Waiver Program.

In November 2009, the United States updated its policies relating to the visa waiver program available for travel to Guam for tourism or business. The current program allows visitors holding passports from Australia, Brunei, Hong Kong, Japan, Malaysia, Nauru, New Zealand, Papua New Guinea, Republic of Korea, Singapore, Taiwan and the United Kingdom to visit Guam and/or Commonwealth of the Northern Mariana Islands without a visa for a period of up to 45 days.

Although a visa waiver has not been granted for Chinese tourists to travel to Guam, in November 2014, the U.S. and China agreed to extend visa validity from a one-year, single-use visa to a 10-year, multi-use visa. This greatly reduces time and cost required for a U.S. visa and removes one of the roadblocks to attracting Chinese tourists to Guam. The loss in seat capacity from Taiwan and limited charter opportunities normally operated by Dynamic Air (due to regional competition) from secondary cities in China such as Guangzhou, Chengdu, Dalian, Nanjing, Shenyang, and Zhengzhou, contributed to the decline in seats from these two potentially large markets for Guam.

Table A-4 highlights the percentage change in annual visitor arrivals to Guam by country for Fiscal Years 2019 through 2024.

TABLE A-4Percentage Change in Annual Visitor Arrivals by Country Fiscal Years 2019-2024

	<u>2019</u>	<u>2020</u>	Change From 2019	% of Total	<u>2021</u>	% Chang e From 2020	% of Total	<u>2022</u>	<u>Change</u> <u>From</u> <u>2021</u>	% of Total	2023(3)	<u>%</u> <u>Change</u> <u>From</u> <u>2022</u>	% of Total	2024 (3)	% Change From 2023	% of Total
Japan	664,784	324,574	-51.2%	42.85%	3,454	-98.9%	5.61%	13,022	277.0%	6.00%	97,823	651.2%	16.23	203,490	108.0%	28.3%
South Korea	734,339	325,109	-55.7%	42.93%	2,063	-99.4%	3.35%	108,454	5157.1%	50.00 %	358,570	230.6%	59.50 %	392,936	9.6%	50.7%
U.S. Mainland / Hawaii	94,141	48,263	-48.7%	6.37%	41,239	-14.6%	66.94%	64,572	56.6%	29.77 %	82,794	28.2%	13.74	85,325	3.1%	5.5%
Taiwan	28,346	10,691	-62.3%	1.41%	2,253	-78.9%	3.66%	423	-81.2%	0.20%	5,371	1169.7%	0.89%	2,913	-45.8%	0.5%
China P.R.C.	12,588	4,287	-65.9%	0.57%	124	-97.1%	0.20%	416	235.5%	0.19%	2,025	386.8%	0.34%	4,850	139.5%	0.7%
CNMI	22,566	10,318	-54.3%	1.36%	3,178	-69.2%	5.16%	12,625	297.3%	5.82%	14,383	13.9%	2.39%	13,079	-9.1%	0.9%
Micronesia (1)	19,788	9,858	-50.2%	1.30%	2,849	-71.1%	4.62%	5,290	85.7%	2.44%	15,903	200.6%	2.64%	16,816	5.7%	1.7%
Philippines	20,708	9,344	-54.9%	1.23%	2,262	-75.8%	3.67%	6,230	175.4%	2.87%	13,593	118.2%	2.26%	13,251	-2.5%	1.8%
Australia	2,250	1,297	-42.4%	0.17%	360	-72.2%	0.58%	1,079	199.7%	0.50%	1,253	16.1%	0.21%	1,159	-7.5%	0.2%
Europe	2,340	1,116	-52.3%	0.15%	697	-37.5%	1.13%	826	18.5%	0.38%	1,485	79.8%	0.25%	1,588	6.9%	0.2%
Hong Kong	6,395	1,226	-80.8%	0.16%	31	-97.5%	0.05%	125	303.2%	0.06%	708	466.4%	0.12%	777	9.7%	0.1%
Russia	5,189	996	-80.8%	0.13%	67	-93.3%	0.11%	63	-6.0%	0.03%	148	134.9%	0.02%	157	6.1%	0.0%
Singapore	1,525	493	-67.7%	0.07%	914	85.4%	1.48%	562	-38.5%	0.26%	853	51.8%	0.14%	949	11.3%	0.1%
Others / Unknown	7,520	4,290	-43.0%	0.57%	1,192	-72.2%	1.93%	2,241	88.0%	1.03%	4,088	82.4%	0.68%	5,293	29.5%	0.7%
Total Air	1,622,479	751,862	-53.7%	99.27%	60,683	-91.9%	98.50%	215,928	255.8%	99.54 %	598,997	177.4%	99.40 %	742,583	24.0%	97.8%
Total Sea	10,095	5,523	-45.3%	0.73%	924	-83.3%	1.50%	987	6.8%	0.46%	3,597	264.4%	0.60%	5,544	54.1%	1.2%
Total Air & Sea	1,632,574	757,385	-53.6%	100.00%	61,607	-91.9%	100.00%	216,915	252.1%	100.0	602,594	177.8%	100.00 %	748,127	24.2%	100%

<sup>(1)</sup> Includes the Republic of Palau ("Palau"), Federated States of Micronesia ("FSM") and the Republic of the Marshall Islands ("RMI").

Source: Guam Visitors Bureau

### Guam Visitors Bureau

The Guam Visitors Bureau is a nonprofit membership corporation that has existed in its current form since 1984. GVB's mission is to efficiently and effectively promote Guam as a safe and satisfying destination for visitors and to derive maximum benefits for the people of Guam. Policy for GVB is set by a 12-member board of directors, consisting of five directors appointed by the Governor with the advice and consent of the Guam Legislature, two directors appointed by the Speaker of the Guam Legislature, four directors elected by the other members, and one director selected by at least a two-thirds vote of the other 11 directors. A board-appointed President and Chief Executive Officer administers the activities of GVB. Membership in GVB is not restricted to any particular group. The Guam Legislature appropriates funding for GVB's operations from amounts available in the Tourist Attraction Fund.

Recent promotions by GVB include a Guam branding initiative; efforts to expand visitor markets through expansion of the visa waiver program and similar initiatives; encouraging longer stays and repeat visits by enhancing and promoting tourist and cultural destinations and events in Guam and working with travel agents to market group-travel initiatives and coordination of more focused familiarization ("FAM") tours. Since 2019, GVB has welcomed FAM tours and meetings, incentives, conventions and events groups from different markets. including hosting three groups of ambassadors focused on re-introducing Guam's activities and attractions to a recovering Japan market in 2022.

<sup>(2)</sup> Includes military air arrivals.

<sup>(3)</sup> Preliminary and unaudited.

In November 2020, Guam was included in National Geographic's 'Destinations on the Rise for 2021' – a list of "25 amazing places to inspire future journeys and remind us why we love to travel." The National Geographic article noted that these 25 "timeless places" including Guam would define future itineraries. The list was made by the global editors of National Geographic Travel and framed by five categories (Adventure, Culture and History, Nature, Family, Sustainability).

In January 2023, GVB marked an important milestone in the shared history of Taiwan and Guam in celebrating the 50<sup>th</sup> anniversary of a significant sister city agreement. Guam signed the sister city agreement with Taipei City on January 12, 1973, by the island's first elected Governor Carlos Camacho and then Taipei Mayor Chang Feng-hsu. The sister city agreement with Taipei City is a celebration of Guam's role in diplomatic relations and cultural ties with the Taiwanese people over the last several decades. According to GVB, overall, this is the third sister city agreement that was signed between Taipei City and the United States.

In 2024 and 2025, the GVB implemented a multi-faceted marketing strategy aimed at revitalizing tourism, diversifying its visitor base, and repositioning Guam as a premier destination in the Asia-Pacific region. These efforts included:

- In August 2024, GVB approved a \$1.5 million marketing deal with the top-tier British football team, the Tottenham Spurs. This unprecedented partnership was designed to leverage the global reach and fanbase of the English Premier League to promote Guam, marking a shift from traditional marketing approaches.
- At the Tourism EXPO Japan 2024 (September 26 to 29) at the Tokyo Big Sight Convention Center, GVB launched the "Wellness Island Project" in partnership with H.I.S. Co., Ltd. The project positions Guam as a top wellness and fitness destination, targeting health-conscious travelers and aiming to attract over 50,000 visitors from Japan in 2025.
- Marketing activities in Korea included the 2024 Seoul-Busan Roadshow and the immersive "Color of Guam" exhibition at Lotte World in Seoul. These events aimed to captivate Korean travelers with Guam's vibrant culture and natural attractions, supported by extensive media coverage and digital campaigns.

In 2025, Guam's tourism industry is focusing on product development, infrastructure upgrades, and enhancing cultural and eco-tourism offerings to attract more visitors and compete with other regional destinations.

### Military Visitors on Guam

According to the Guam Hotel and Restaurant Association there are about 3,000 military and federal government personnel that are permanently staying in Guam's hotels at any given point in time due to a variety of reasons including Permanent Change of Status orders, temporary housing for individuals moving to Guam or individuals working on temporary assignment.

Guam military exercises and military visits provide an instant economic boost to Guam as the crew members stay in the hotels, eat at local restaurants and tour the island. For Calendar Year 2025, Guam hosted two major multinational military exercises: Exercise Cope North 2025 (February 3-25) with over 2,300 military personnel from the United States, Japan, and Australia and Exercise Sea Dragon 2025 (March 6-18) with approximately 200 U.S. Navy personnel. Both events underscored Guam's strategic importance in the Indo-Pacific region and involved significant participation from allied nations. On March 24, 2025, the Carl Vinson Carrier Strike Group docked in Guam allowing 7,500 sailors to experience. The U.S. Navy's largest aircraft carrier, USS Nimitz Carrier Strike Group, also stopped in Guam highlighting its strategic importance in the Indo-Pacific.

For Calendar Year 2024, Exercise Cope North 2024 (February 5-23) was held at Andersen Air Force Base, Guam, involving approximately 1,700 U.S. and 700 allied personnel (Japan, Australian, France, Canada, South Korea). Agile Reaper (April 10 - 16) brought approximately 800 U.S. Airmen to Guam to rehearsed air dominance, global mobility and command/control using a hub and spoke system from Andersen Air Force Base. Valiant Shield 2024 (June 7-18) a multinational Indo-Pacific led by the United States and allies. USS Ronald Reagan (July 9-21) approximately 5,000 sailors visited Guam, boosting the local economy through tourism and spending. Silver Flag

(July 22-26) a multilateral engineering exercise at Andersen Air Force Base with 74 engineers from the United States, Australia, Korea, Japan, Indonesia, Philippines. From, key indo-pacific maritime forces conducted Pacific Vanguard 2024 (August 24 - September 2) a multinational naval exercise at Naval Base, Guam involving 1,500 military personnel from the U.S., Japan, Canada and Korea to Guam focusing on maritime, anti-submarine warfare, and air warfare operations and advanced maneuvering scenarios.

For Calendar Year 2023, Guam hosted several key military exercise: Cope North 2023 (February 2023) over 1,000 U.S. personal join forces with Japan, Australian, France. In April 2023, the U.S. hosted a two-week joint in Guam with military units from Japan, Korea, India and Canada. On July 12, 2023, the United States Army Pacific led the region's first-ever Disaster Response & Exchange Exercise with six South Asian Countries. In October 2023, the U.S. and South Korea navies held the biennial "Silent Shark" anti-submarine warfare exercise.

### Cruise Industry

The cruise industry has historically been a modest visitor market for Guam. Governor Leon Guerrero tasked the government and private sector partners to expand the small cruise ship industry by appointing government and private sector leaders to spearhead an initiative to make Guam a home-base for a small cruise ship that will take visitors throughout the Micronesian islands. In August 2019, Guam joined the South Pacific Cruise Alliance ("SPCA"), becoming its ninth member. Guam's location in the northern Pacific and close proximity to Asia makes it an ideal cruising destination from the eastern markets and a potential homeport for cruising around Micronesia. SPCA members include American Samoa, Cook Islands, Fiji, French Polynesia, Guam, Pitcairn Islands, Samoa, Tonga and Wallis & Futuna.

In 2024, Guam welcomed 10 cruise ships, bringing over 18,000 visitors to Guam. For 2025, Guam is projecting a total of 8 cruise ship visits.

#### <u>Hotels</u>

Tumon Bay, located on the west coast of the island, is the heart of Guam's tourist industry. The hotels in Tumon Bay provide lodging to the majority of visitors to Guam. During the 1990s and early 2000s, Guam's inventory of hotel rooms increased over 100%, with substantial growth in the number of hotel rooms occurring from 1991 to 1993 and from 1995 to 2001. As of January 2025, there were 32 hotels in Guam, including many notable international hotel operators, with an inventory of approximately 8,868 rooms.

Pursuant to Section 30101(b), Title 11, Guam Code Annotated, the Hotel Occupancy Tax is an excise tax levied and imposed by the Government against transient occupants of a room or rooms in a hotel, lodging house or similar facility located in Guam. The Hotel Occupancy Tax has been levied at the rate of 11% of the rental price charged or paid per occupancy per day since April 1, 1995.

Table A-5 below shows the amount of Hotel Occupancy Tax revenues collected for Fiscal Years 2019 through 2024.

TABLE A-5 Annual Hotel Occupancy Tax Revenues Fiscal Years 2019 – 2024

Fiscal Year	<b>Taxes Collected (\$)</b>
2019	44,701,482
2020	26,366,511
2021	12,372,113
2022	18,168,635
2023(1)	26,310,551
2024(1)	33,346,720

<sup>(1)</sup> Preliminary and unaudited.

Sources: Tourist Attraction Fund Audited Financial Statements for Fiscal Years 2019-2022

(Remainder of Page Intentionally Left Blank)

Table A-6 lists the weighted average hotel occupancy and weighted average room rates from Fiscal Years 2019 through 2024.

TABLE A-6 Weighted Average Hotel Occupancy and Room Rates Fiscal Year 2019-2024

Year	Weighted Average Hotel Occupancy Rate (%)	Weighted Average Room Rate (\$)
2019	88	211
2020	56	189
2021	45	157
2022	53	173
2023(1)	65	197
2024 <sup>(1)</sup>	66	208

<sup>(1)</sup> Preliminary and unaudited. Source: Guam Visitors Bureau

Table A-7 lists the top 15 hotel operators by number of existing rooms as of January 2025.

TABLE A-7
Top 15 Hotel Operations in Guam
As of May 2025

Hotel/Resort	<u>Year</u> <u>Opened</u>	<b>Location</b>	Number of Rooms (1)
Pacific Islands Club	1980	Tumon	777
Hilton Guam Resort & Spa	1972	Tumon	646
Dusit Beach Resort Guam (2)	1999	Tumon	604
Guam Plaza Hotel	1983	Tumon	505
Hotel Nikko Guam	1992	Tumon	470
Hyatt Regency Guam	1994	Tumon	450
Westin Resort Guam	1996	Tumon	430
Hoshino Resorts RISONARE Guam <sup>(3)</sup>	1992	Tamuning	430
Guam Reef & Olive Spa Resort	1974	Tumon	428
Dusit Thani Guam	2015	Tumon	421
Tsubaki Tower	2020	Tumon	340
Crowne Plaza Resort Guam <sup>(4)</sup>	1971	Tumon	321
RIHGA Royal Laguna Guam Resort (5)	2007	Tamuning	318
Leo Palace Resort Guam	1993	Yona	266
Holiday Resort & Spa Guam	1996	Tumon	<u>252</u>
Top 15 Total			6,658
Other Hotel Rooms			<u>2,210</u>
<b>Total Hotel Rooms</b>			8,868

Numbers may not reflect actual capacity as hotel management may make rooms unavailable at any given time.

Source: Guam Visitors Bureau.

Over the past few years, several existing hotels have undertaken significant renovations. In April 2020, the Fiesta Resort Guam closed for an extensive, \$45 million refurbishment renovation to transform the Tumon hotel into a luxurious getaway and reopened as Crowne Plaza Resort Guam in 2023. The Westin Resort Guam completed a \$1.5 million renovation to its dining area that houses its buffet in 2020 and completed a \$1.5 million renovation project to the hotel's six bungalows in March 2024. Similarly, renovations at the Hyatt Regency Guam of guest rooms and the President Suites were a multi-million dollar investment. In March 2024, the Hilton Resort & Spa completed \$8.0 million of upgrades throughout the property.

The Tsubaki Tower, a 26-story, 340-room luxury five-star hotel located in Tumon, opened in July 2020. The Pacific Star Hotel sold to a Georgia-based Eastern Contractor Corp. for \$33 million. The deal was approved by the bankruptcy court on Guam on March 2024.

<sup>(2)</sup> Formerly the Outrigger Guam Resort.

<sup>(3)</sup> Formerly the Onward Beach Resort.

<sup>(4)</sup> Formerly the Fiesta Resort Guam.

<sup>(5)</sup> Formerly Sheraton Laguna Guam Resort

#### **Airlines**

The Airport is operated by GIAA, a public corporation and autonomous instrumentality of the Government. The Airport is the only commercial air carrier airport serving Guam and is the principal air carrier airport serving the surrounding Micronesian islands.

The Airport has approximately 874,000 square feet of terminal space, which includes the Third Floor International Arrivals Corridor, along with approximately 250,000 square feet of adjacent facilities, including hangars, maintenance facilities, warehouse space, storage facilities, office space and expansive ground space.

For the first nine months of Fiscal Year 2024, 13 airlines provided service at the Airport, including one major U.S.-flag air carrier, eight foreign-flag air carriers, one regional/commuter airlines that provides inter-island service and three cargo airlines. In addition, the Airport is served by other charter flights, including military charter flights, operated by various airline carriers.

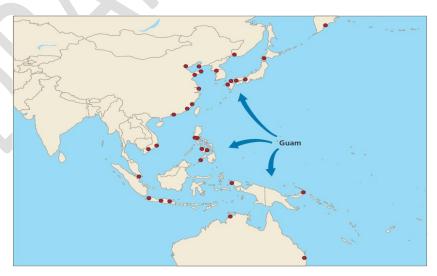
United Airlines ("United") is the largest air carrier serving the Airport. The Airport serves as a hub in United's global route network. United's Guam hub is designed to serve: (1) regional origin-destination passengers on short-haul flights to and from Guam, (2) origin-destination passengers on long-haul flights, primarily tourists visiting Guam, and (3) transit passengers on connecting or through flights.

#### Seaport

The Port Authority of Guam is the only commercial seaport on Guam and the primary seaport in Micronesia. The Port consists of a cargo terminal, industrial terminal, four berths, cargo handling equipment and numerous support buildings and facilities. The Port's facilities are located on Cabras Island along the northern shoreline of the Outer Apra Harbor, a natural lagoon enclosed by a submerged coral bank and a barrier reef enhanced with a breakwater. The Port receives and processes more than 90% of the total volume of goods and supplies needed to support activities on Guam, making it vital to Guam's future development and sustainability.

The U.S. flag carriers serving Guam include Matson (which is fully compliant with the Jones Act), American President Lines, Seabridge and Waterman Steamship Corporation. The foreign flag carriers include Marianas Express Lines Limited and Kyowa Shipping Co. Ltd. These foreign flag carriers provide the majority of transshipment services to other ports in the region including the Port of Saipan, the Port of Majuro and other smaller ports.

The map below identifies major ports that can be reached from Guam via sea in five days or less.

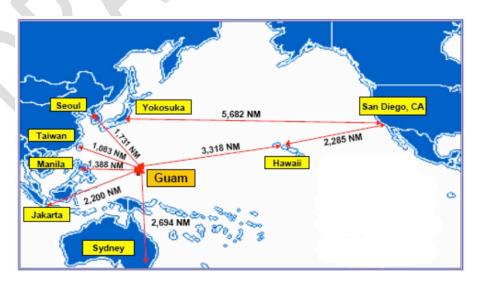


#### **Military Activity**

World events over the last several years have increased recognition of Guam's strategic military value and has resulted in increased military presence on Guam, bolstering the military's contribution to the Guam economy. A strong U.S. presence in the Pacific demonstrates active support for Japan, South Korea, Australia and other Pacific Rim allies and supports U.S. economic and security interests. Guam is positioned geographically to constitute an extended homeland defense perimeter, protecting the U.S. west coast and Hawaii from acts of aggression, and has the only substantial military facilities on U.S. soil in the Western Pacific Ocean. Military bases and defense systems on Guam can support forward deployed capabilities in Asia and allow rapid response to any threat to the stability of the Asian region or any threat to the U.S. originating in the Asian region. In 1995, Joint Base Guam was created which placed all land in Guam that was previously managed by the various military departments under the Department of the Navy. Other military considerations regarding Guam's location include:

- Geographic Location: Closer to potential flashpoints of conflict in Asia and the Middle East.
- U.S. Sovereign Territory: No need for host nation consent to pre-position war munitions, deploy weapons or conduct operations.
- U.S. Air Force, Navy, Marine Corps, Coast Guard, National Guard and Reserve facilities with substantial munitions, fuel supply, communications, command and control capabilities.
- Unencumbered air and sea space for live fire and special operations training including Explosive Ordnance Disposal and Sea, Air & Land (SEAL) elements and other joint military special operational readiness initiatives.
- Deep-water harbor with 17,000 linear feet of wharfage with ability to handle three million pounds of ordnance (net explosive weight the actual weight in pounds of explosive mixtures or compounds, including the trinitrotoluene equivalent of energetic material, that is used in determination of explosive limits and explosive quantity data arcs).
- Significant airfield capability including dual, two-mile-long runways with contingency, mobilization and surge capable civilian airfields on Guam and the CNMI.
- Repair capabilities for surface vessels, submarines, aircraft and combat equipment at the Intermediate Maintenance Facility, private ship repair facilities, the submarine tender, Naval Base Guam, Andersen Air Force Base and civilian facilities.

The map below shows Guam's location in the Pacific and relative distances between major cities in the Pacific Rim.



#### Military Personnel

In July 2010, the Joint Guam Program Office of the Department of the Navy released its Final Environmental Impact Statement ("EIS") pertaining to the proposed U.S. military build-up on Guam, and in September 2010 the DOD issued its Record of Decision pertaining to the EIS. At the time the EIS was released, it was anticipated that the military build-up would have three major parts: (i) relocation of part of the Third Marine Expeditionary Force from Okinawa, Japan, (ii) creation of the infrastructure for an aircraft carrier berthing and (iii) installation of an Army Air and Missile Defense Task Force.

In July 2015, the DOD released its Supplemental Environmental Impact Statement ("SEIS"), which identified potential impacts associated with several alternatives for the cantonment/family housing component of this relocation, as well as for the live firing training range complex. According to the Navy, the SEIS showed a significantly decreased footprint and a significant decrease in the potential strain on Guam's infrastructure. Rather than the initially contemplated seven years of construction, the SEIS stated there would be 13 years of moderate construction with a gradual phase-out to follow.

The 2015 Record of Decision identified the final locations for additional bases and facilities to accommodate the Marines. The National Defense Authorization Act for fiscal year 2015 set the maximum cost of moving the Marines from Japan to Guam at \$8.6 billion, of which \$3.1 billion of the cost will be provided by Japan, and the remaining cost will be provided by the United States.

The expected impact from the military build-up on Guam's population is highlighted in Table A-8.

TABLE A-8
ESTIMATED TOTAL MILITARY RELATED POPULATION BY FISCAL YEAR 2015-2037

	<b>Active Duty</b>	DoD Civilian		
<b>Year</b>	Personnel	Workers	<b>Dependents</b>	<b>Total</b>
2015	4,317	3,631	4,247	12,196
2024	8,721	5,535	8,634	22,890
2027	14,541	6,198	12,268	33,007
2029	12,596	6,302	12,325	31,225
2034	14,598	6,302	12,325	33,225
2037	15,592	6,305	13,165	35,052

Sources: Joint Region Marianas

The U.S. government may choose to relocate military fleets, equipment and personnel from time to time to either increase or decrease the U.S. military presence on Guam, and the Government cannot predict whether or when such adjustments may occur. However, the military presence on Guam is generally expected to increase due to the factors discussed above.

Table A-9 lists active-duty military personnel on Guam from September 2019 through 2024.

TABLE A-9 Active Duty Military Personnel on Guam<sup>(1)</sup> Fiscal Years 2019-2024

	Air		Coast			
Year	Force <sup>(2)</sup>	Army	Guard	Marines	Navy	Total
2019	2,006	167	0	25	3,362	5,560
2020	2,108	183	0	48	3,801	6,140
2021	2,165	211	0	133	3,764	6,273
2022	2,169	207	0	290	4,001	6,667
2023	2,166	1	313	117	3,768	6,365
2024	2,302	0	305	118	3,761	6,486

<sup>(1)</sup> This table only represents the unclassified data on personnel who are assigned for duty at these specific locations. The table does not include all personnel on temporary duty, or deployed in support of contingency operations.

Source: Defense Manpower Data Center (DMDC)

#### Air Force

Andersen Air Force Base located on the northern tip of Guam is a major airfield operated by the U.S. Air Force 36<sup>th</sup> Wing. North of Andersen Air Force Base's primary airfield is Northwest Field an airfield built during World War II. Northwest Field is currently used for training, ammunition storage and live fire ranges. Most Air Force assets such as B-52, B1 and B2 bombers fly in from stateside air bases on a temporary (3-6 month) rotational basis while air assets from visiting Naval aircraft carriers utilize Andersen Air Force Base as well. Permanent air assets based at Andersen Air Force Base include Navy unmanned reconnaissance aircraft (MQ-4 and RQ-4 Global Hawks) and Navy helicopters (MH-60S Seahawks). The Republic of Singapore Air Force (RSAF) plans to establish a permanent rotational presence on Guam beginning in 2029, which will include fighter aircraft such as the F-15SG, F-16C/D, and potentially the F-35B. This presence is expected to increase Guam's population by approximately 205 personnel, with an additional 200 personnel deployed to the island on a biannual basis to support ongoing training exercises.

Also in Andersen Air Force Base, the U.S. Space Force maintains the Guam Tracking Station, operated by the 21st Space Operation Squadron, Detachment 2. This unit is part of the Air Force Satellite Control Network, which provides support to military operations. Two military members and 35 contractors executed the 24/7 mission enabling real-time Satellite C2 in support of the war fighter.

#### Army

Permanent U.S. Army presence on Guam consists of two organizations, an active-duty Terminal High Altitude Area Defense ("THAAD") battery and the Guam Army National Guard. The Army deployed a THAAD battery on Guam in 2013. In 2022, the U.S. Indo-Pacific Command issued new requirements to upgrade Guam's missile defense. The U.S. Missile Defense Agency ("MDA") is developing the Enhanced Integrated Air and Missile Defense System to defend Guam against advanced missile threats. The MDA is planning on spending \$1.7 billion to implement the integrated missile defense system in Guam. In May 2024, the MDA awarded an approximately nearly \$460.6 million contract to Boeing Co. for the engineering design and development of the missile defense system on Guam. Over \$1.15 Billion has been authorized in the 2025 National Defense Authorization Act for MDA projects associated with the Defense of Guam.

<sup>(2)</sup> Includes Space Force.

<sup>(3)</sup> U.S. Coast Guard Forces Micronesia/Sector Guam

In June 2024, the MDA released an environmental assessment detailing its plans to conduct missile defense flight test and tracking exercises in cooperation with the Air Force, Army, Navy and Coast Guard. The proposed action would involve up to two tests each year over the next decade from Guam as the MDA works to develop the Enhanced Integrated Air and Missile Defense System above. The environmental assessment concluded that the proposed testing would have no significant direct, indirect, or cumulative environmental impacts to Guam. The first test occurred at the end of 2024.

#### Coast Guard

The U.S. Coast Guard ("USCG") has been present in Guam since 1905, however, the U.S. Coast Guard Forces Micronesia/Sector Guam ("Guam Coast Guard") was established on Guam on November 8, 2023 as part of the Consolidated Appropriations Act of 2023 and expands the U.S. Coast Guard's mission support in the Indo-Pacific region. The Guam Coast Guard operates out of Naval Base Guam. The unit is home to the USCGC Myrtle Hazard, the USCGC Oliver Henry, the USCGC Frederick Hatch and the USCGC Hickory. The Guam Coast Guard comprises more than 300 dedicated members based in Guam and the Commonwealth of the Northern Mariana Islands.

#### Marines

The major Marine facility on Guam is Marine Corps Base Camp Blaz, which was activated on October 1, 2020, and is the first new Marine Corps base activated in the entire United States since 1952. The SEIS and 2015 Record of Decision anticipate that approximately 5,000 Marines and 1,500 Marine Corps family members from Okinawa and other locations will be relocated to Guam by Fiscal Year 2028, with the first 2,500 Marines moving to a new Marine Corps Base Camp Blaz by Fiscal Year 2026. To support plans of strengthening defense on Guam, construction is currently underway at several locations including: the newly activated Marine Corps Base Camp Blaz – Main Cantonment at Finegayan, Apra Harbor United States Marine Corps ("USMC") Sea Embarkation, Andersen Air Force Base ("AAFB") Northwest Field – Mason Live Fire Training Range Complex, USMC ACE Ramp at Andersen, Family Housing at AAFB and AAFB South – Skaggs Urban Combat Training Complex. The Marine Corps held an activation ceremony on January 29, 2023, for Base Camp Blaz, which will be home to about 5,000 Marines and will serve as a "strategic hub" in the Indo-Pacific with its eye on China and North Korea. In December 2024, the first 100 logistic support Marines arrived on Guam. These Marines are the first of over 4,000 expected to move from Okinawa to Guam over the next several years. The full relocation is projected to be completed around 2028. On March 16, 2025, 50 Marines began moving into their new quarters at Camp Blaz enlisted barracks.

#### Navy

Navy Base Guam in Apra Harbor operates a port that can accommodate the largest Navy warships, including aircraft carriers. Within the harbor, Polaris Point Submarines Base is the homeport for four Los Angeles-class nuclear-power fast attack submarines on Guam: the USS Annapolis, USS Asheville, USS Jefferson City, and the USS Springfield. A Virginia-class fast-attack submarine, USS Minnesota, arrived in Guam in November 2024. Also based out of Naval Base Guam are two Navy submarine tender ships, the USS Frank Cable and the USS Emory S. Land, which are surface vessels that provide support and services for the submarines' forward-deployed operations. The submarines and tenders are maintained as part of the U.S. Navy's forward-deployed submarine force (Submarine Squadron 15) and are readily capable of meeting global operational requirements.

### Military Procurement of Services and Construction

The Department of Defense ("**DOD**") is planning to make additional investment in military infrastructure in Guam and to increase the number of service members on Guam. DOD's five-year plan outlined in the Future Years Defense Program calls for spending about \$7.3 billion on Military Construction on Guam from Fiscal Year 2024 through Fiscal Year 2028. This includes enhancing Navy and Air Force infrastructure to support air and sea operations, the new Marine Corps Base and installation of a new missile defense system and support for the personnel needed to operate the missile defense system. MILCON spending in Guam is expected to peak in Fiscal Year 2025, as major construction for the planned missile defense system is executed.

Congressional authorizations for appropriations for military construction and family housing projects are depicted in Table A-10.

TABLE A-10
U.S. Military Construction Authorizations for Guam
Fiscal Years 2021-2025

Fiscal Year	<b>Total Authorizations</b>
2021	571,205,000
2022	765,217,000
2023	1,691,325,000
2024	4,233,723,000
2025	2,088,319,000

Source: The Committee on Armed Services, National Defense Authorization Acts

The 2021 NDAA was signed into law on January 1, 2021 and included approximately \$571.2 million for military construction on Guam. The 2021 NDAA included an important provision specific to Guam that authorized H-2B labor for civilian projects on Guam (see "GEOGRAPIC, DEMOGRAPHIC AND ECONOMIC INFORMATION – Guam Economy- H-2B Visas").

The 2022 NDAA was signed into law on December 27, 2021 and included approximately \$765.2 million for construction projects on Guam. The 2022 NDAA budget prioritized a missile defense system to defend Guam against advanced missile threats. See "— Army" above. According to the Joint Region Marianas, the Missile Defense Agency is evaluating 16 parcels of military-owned land in Guam for the different elements of a defense system. Planning for the missile defense is ongoing.

The 2023 NDAA, passed in December 2022, included up to \$1.7 billion of appropriations as part of the military buildup on Guam. The 2023 NDAA extended the Pacific Deterrence Initiative ("PDI") through Fiscal Year 2023, identified an additional \$11.5 billion in investments to support PDI objectives, and authorized an additional \$1 billion to address unfunded requirements identified by the U.S. Indo-Pacific Command. PDI is a set of prioritized defense investments and activities established by Congress to enhance U.S. deterrence and defense, assure allies and partners, and counter adversary threats in the Indo-Pacific region in response to China's growing military power.

The 2024 NDAA, passed in December 2023, included over \$4.2 billion of appropriations as part of the military buildup. The 2024 NDAA directs the assessment of the infrastructure, capacity, resources, and personnel requirements for Guam during fiscal year 2024 through 2029 to meet United States strategic objectives and directs the development of a comprehensive strategy for developing, acquiring, and operationally establishing integrated air and missile defense architecture. The 2024 NDAA also extended the H-2B visa program admission in Guam until December 31, 2029. See "H-2B Visas" above in this Appendix A.

The 2025 NDAA, passed in December 2024, includes significant defense-related funding and policy provisions related to Guam and the Micronesian region and provides authorizations for military construction and military procurement. For 2025, the NDAA includes almost \$2.1 billion in authorizations as part of the Guam Defense System (GDS) and the Pacific Deterrence Initiative (PDI) in Guam. The 2025 NDAA extended the 2021 and 2022 authorizations for the Joint Region Marianas Communications upgrade (\$22 Million) and the Polaris Point Submarine Base Resiliency Upgrades (\$38.3 million) respectively, allowing these authorizations to continue into 2025.

The projects funded in the 2025 NDAA are listed in the following Table A-11.

### TABLE A-11 2025 NDAA Projects Located in Guam (\$000s)

GDS Procurement	\$22,602
GDS (targets)	\$14,400
GDS (Aegis)	\$89,200
GDS (development)	\$492,294
GDS (Aegis test)	\$1,200
Glass Breakwater Restoration	\$600,000
GDS Battalion HQ	\$47,000
GDS Environmental Mitigation	\$23,000
GDS Forward Operating Sites	\$75,000
PDI HSC 25 Hanger Replacement	\$50,000
PDI AAFB Youth Center	\$78,730
PDI Earth covered munitions magazines	\$42,439
PDI Defense Access Roads	\$100,000
Guam High School	\$26,000
GDS Command Center	\$147,212
GDS EIAMD Phase 1	\$238,267
Family Housing (42 Units)	\$12,112
Family Housing (136 Units)	\$28,863
Total 2025 NDAA Authorization for Guam	2,088,319

Source: Guam Backgrounder, Pacific Center for Island Security, Jan. 2025 and Text of the House Amendment to the Senate Amendment to HR 5009, Dec. 2024.

A Continuing Resolution (CR) was passed to fund the government until a final budget can be passed sometime in early CY 2025. Included in the CR is \$2.0 billion specifically for U.S. military installation recovery in Guam from Typhoon Mawar for projects listed below:

**TABLE A-12** 

#### 2025 Repair/Replacement Projects Located in Guam for Typhoon Mawar (\$000s)

USAF Other Procurement	\$129,722
Space Force Other Procurement	\$37,994
USAF RT&E	\$69,278
USN/USMC MilCon	\$1,127,281
USAF MilCon	\$487,300
Army NG MilCon	\$21,000
USN/USMC Housing	\$27,399
USN/USMC Housing O&M	\$102,168

Source: Guam Backgrounder, Pacific Center for Island Security, Jan. 2025 and Division B of HR 10545 (American Relief Act of 2025)

An additional \$3.2 billion is available to be shared for Typhoon Mawar recovery with other disaster recovery areas. Of this amount, \$148,040,000 is specifically reserved for repair and replacement of NASA facilities on Guam damaged by Typhoon Mawar. The final determination of what will be available in Guam for Mawar recovery will be determined when the respective service branches finalize their list of requirements.

TABLE A-13

2025 NDAA Other Disaster Recovery Areas
2025 Repair/Replacement Projects Located in Guam for Typhoon Mawar (\$000s)

NASA Repair/Replacement of Damaged Facilities	20% of NASA remediation (\$148,040,000) is allocated for Mawar	\$740,200,000 148,040,000
USN O&M	Available for Mawar and 5 other storms	\$1,454,153,000
USAF O&M	Available to Mawar and 2 other storms	\$912,778,000
Space Force O&M	Available to Mawar and 2 other storms	\$90,230,000
USAF Reserve O&M	Available to Mawar and 2 other storms	\$1,319,000
Army NG	Available to Mawar and 2 other storms	\$26,065,000
Air NG	Available to Mawar and 2 other stormsHurricane Helene	\$2,209,000

Source: Guam Backgrounder, Pacific Center for Island Security, Jan. 2025 and Division B of HR 10545 (American Relief Act of 2025)

## Recent Military Project Awards

The Federal Procurement Data System indicates \$1.0 billion of U.S. DOD procurement contracts was awarded in Fiscal Year 2019; \$1.2 billion was awarded in Fiscal Year 2020; \$2.0 billion was awarded in Fiscal Year 2021; \$1.7 billion was awarded in Fiscal Year 2022; and \$2.7 billion was awarded in Fiscal Year 2023. Procurement contracts awarded for \$1.0 million and above vary in areas from telecommunications, construction related activities and materials, and contracting for professional services (architects, engineers, medical laboratories, armored guards, janitors and technicians).

Table A-14 reflects the U.S. Department of Defense Procurement Contract Awards from Fiscal Years 2020 through 2024.

TABLE A-14
U.S. Department of Defense Procurement Contract Awards for Guam
Fiscal Years 2019-2024

Fiscal Year	U.S. Department of Defense Procurement Contracts	
2020	1,203,871,558	
2021	2,008,919,859	
2022	1,744,690,711	
2023	2,747,380,305	
2024(1)	2,484,569,654	

Source: Federal Procurement Data System-Next Generation (FPDS-NG)

The System for Award Management (SAM.gov)/

<sup>(1)</sup> Retrieved from the System for Award Management (SAM.gov) which retired the Federal Procurement Data System-Next Generation

Federal activity on Guam continues with large contracts awarded on Guam since 2019. Some of the most recent military projects awarded can be found on Table A-15.

Table A-15 Military Projects Awarded on Guam 2021-2024

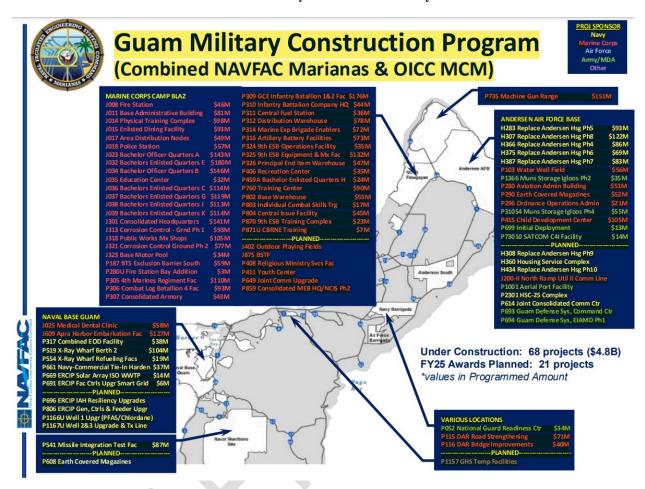
<u>Navy</u>			1 Guam 2021-2024	Anticipated
Awarded	Company		Project	Completion
August 2021	Core Tech-HDCC-Kajima LLC.	546,000,000	For the construction of five multi-story bachelors enlisted quarters complexes at the Marine Base Camp Blaz	May 2026
April 2022	Hensel Phelps Construction Co.	36,000,000	Warehouse at U.S. Naval Support Activity, Marine Corps Base Camp Blaz	July 2024
April 2022	Black Construction-Tutor Perini Joint Venture	106,000,000	Bachelors Officer Quarters Tower at Marine Base Camp Blaz	December 2024
April 2022	Gilbane SMCC ECC LCC	35,000,000	Armory Facility Marine Corps Base Camp Blaz	August 2024
April 2022	Gilbane SMCC ECC LCC	62,000,000	Marine Expeditionary Brigade Enablers Facility Marine Corps Base Camp Blaz	September 2024
April 2022	Gilbane SMCC ECC LCC	40,000,000	Two Infantry Battalion Company Headquarters Marine Corps Base Camp Blaz	August 2024
April 2022	Granite Construction Co. Guam	35,990,000	Hardening of overhead roof structure, Joint Region Marianas	July 2024
May 2022	Gilbane SMCC ECC LCC	75,196,267	Permanent Maintenance Building, Administrative Building and other facilities for Maine Air Ground Combat Task Force	September 2024
May 2022	Black Construction-Tutor Perini Joint Venture	73,020,113	Low-rise facilities to support the 4th Marine Regiment	August 2024
May 2022	Black Construction-Tutor Perini Joint Venture	48,919,252	Permanent Aviation Administration Building	August 2024
May 2022	Black Construction Corp.	83,733,445	For Design and Construction of Wharf Improvements at Naval Base Guam	September 2024
August 2022	RMA Architects Inc	35,000,000	IDIQ for AE Services for NAVFAC Pacific Housing Projects	August 2027
August 2022	Lockheed Martin Corporation	7,238,885,000	Design/Develop/Deliver HDR-G Radar System to Guam	2028
September 2022	Design Partners Inc	34,300,000	IDIQ for AE Services for NAVFAC Pacific Housing Projects	September 2027
September 2022	Global Pacific Design Builders LLC	33,184,524	Construct Guam Army National Guard Readiness Center	February 2025
October 2022	Design Partners Inc.	49,000,000	Indefinite-delivery/indefinite-quality architect- engineer contract	September 2027
October 2022	Black Construction-Tutor Perini Joint Venture	26,000,000	Design and construction of a communications facility at Joint Regions Marianas, Anderson Air Force Base	February 2025
September 2023	Agbayani Construction Corp., AIC International Inc., Chugach Consolidated Solutions LLC, Custom Mechanical Systems Corp., InfraTech International LLC, Islands Mechanical Contractor Inc., Pacific Federal Management Inc., Reliable Builders Inc., Sea Pac Engineering Inc. and Techni-Con Inc.	\$600,000,000	New construction, renovation/modernization, and routine repair and maintenance at various federal or military facilities on Guam and other outlying areas in the Pacific. The companies will compete for task orders of between \$1 million and \$20 million.	Indefinite
April 2024	Pacific Rim Constructors Inc.	21,978,000	Construction at Marine Corps Base Camp Blaz of a permanent low-rise recreation center	October 2026
April 2024	Hensel Phelps Shimizu JV	78,432,217	Construction of a new single-story corrosion repair facility at Camp Blaz	October 2026
May 2024	Caddell-Nan a Joint Venture	44,265,264	Construction of a two-story education center at Camp Blaz	May 2026
May 2024	Black Construction – Tutor Perini Joint Venture	74,409,403	For the construction of a child development facility at Andersen Air Force Base	July 2026
June 2024	Black, Veatch – Jacobs Joint Venture	249,000,000	Architect-engineer services for missile defense system projects across the Pacific are of operation	June 2029
July 2024	Pacific Federal Management Inc.	14,529,779	Construction of a training complex to support the III Marine Expeditionary Force, 9 <sup>th</sup> Engineer Support Battalion	March 2026
August 2024	Granite-Obayashi 2 Joint Venture	112,600,000	Construction of equipment and maintenance facilities to support the III Marine Expeditionary Force, 9 <sup>th</sup> Engineer Support Battalion	January 2027

September 2024	Core Tech-HDCC-Kajima LLC	61,941,034	Construction of low-rise reinforced concrete training	April 2027
			center at Marine Corps Base Camp Blaz.	
October 2024	Tutor Perini – Nan Joint Venture	563,000,000	Repairs to Guam's Glass Breakwater	July 2029
October 2024	Black Construction – Tutor Perini Joint Venture		Construction of a single-story, 57,664-square-foot P- 541 Missile Integration Test Facility at Naval Base Guam	December 2028
October 2024	Granite Construction Co. Guam		Design-build for a sitework and infrastructure project related to the Relay Ground Station-Asia (RGS-A) program at Naval Base Guam	August 2026

Air Force Awarded	Company	Amount (\$)	Project	Anticipated Completion
August 2020	DZSP 21	48,000,000	Base Operating Support Services	April 2028
December 2021	Relyant Globall LLC	28,992,210	Design and construction of eight new earth-covered munitions storage magazines at Andersen Air Force Base, Guam	February 2025
April 2022	Back Construction – Tutor Perini	106,000,000	Construction of a bachelor officer quarters with a multi-story housing tower, attached common area wing and detached utility building.	December 2024
May 2022	Reliable Builders Inc.	43,444,038	Munitions Storage Igloo	July 2025
July 2023	Core Tech International Corp.	216,876,249	design and construction (design-build) for the replacement of Andersen Housing, Naval Support Activity Andersen.	October 2026
September 2023	Pacific Federal Management Inc.	14,900,000	Increase contract capacity for grounds maintenance and tree trimming services at Naval Base Guam, Marine Corps Base Camp Blaz, and Andersen Air Force Base, Guam	November 2024
November 2023	AIC International, Inc., Environet Inc.; Fargo Pacific Inc., InfraTech International LLC, Modern International Inc., Pacific Rim Constructors Inc., Reliable Builders Inc., Serrano Construction and Development Corp., Techni-Con, and Weldin Construction LLC	700,000,000	Design and build, minor construction, facility, and real property repair and alteration projects on an asneeded basis. The primary work will consist of multiple disciplines in general construction categories for on-base facilities located on Andersen Air Force Base and Northwest Field, Guam.	November 2030
May 2024	Pacific Rim Constructors Inc.,	176,929,610	For the design and construction of military housing at Andersen Air Force Base (AAFB), Guam	December 2028

Table A-16 below lists all planned Military construction activity tied to the buildup, and as reported as of November 2024, by the Naval Facilities Engineering Systems Command (NAVFAC) Marianas demonstrating the growing activity of military construction on the island going forward for all military branches.

A-16
Recent Military Construction Activity



Source: NAVFAC Marinas

#### GUAM ECONOMIC AND STATISTICAL INFORMATION

On April 15, 2024, the Bureau of Economic Analysis of the U.S. Department of Commerce ("BEA") released its estimated gross domestic product ("GDP") and gross domestic income for Guam for 2022 (the most recent data available). As set forth in Table A-17, the BEA's estimates indicate that after declining in Calendar Year 2020 due to COVID-19, Guam's GDP continued to grow from \$6.234 billion in 2021 to \$6.910 billion in 2022, an increase of 10.8%. The 2022 GDP figure primarily consists of approximately \$4.140 billion in personal consumption expenditures, \$4.633 billion in government consumption expenditures and gross investment and \$2.013 billion in private fixed investments less \$3.876 billion in net export of goods and services.

# TABLE A-17 GUAM GROSS DOMESTIC PRODUCT CALENDAR YEARS 2018 – 2022 (Millions of Dollars)

Calendar Year	Gross Domestic Product (1)	
2018	\$6,051	
2019	6,355	
2020	5,916	
2021	6,234	
2022	6,910	

<sup>(1)</sup> Estimates for 2018 to 2021 have been revised to incorporate improvements to source data and methods. Source: U.S. Department of Commerce Bureau of Economic Analysis

The BEA estimates that Guam's GDP, increased from \$6.051 billion in 2018 to \$6.355 billion in 2019 prior to the COVID-19 pandemic. An expected decrease in 2020 was reflected with GDP at \$5.916 billion followed by a 5.4% increase in 2021. The increase in Guam's economy in 2022 reflected increases in private fixed investments by 14.7%, federal government spending by 4.6%, territorial government spending by -3.4% and personal consumption expenditures by 1.2%.

The GDP by industry data reflected that the private sector was the source of decline in GDP in 2020. The decline in the private sector was primarily caused by decreases in accommodations, food services, and amusements attributed to the COVID-19 pandemic. Due to COVID-19, visitor arrivals declined 80.3% in Calendar Year 2020. In relation, wholesale and retail trade decreased as nonessential businesses throughout the island were subject to mandatory restrictions affecting daily operations. The government sector increased by 1.4% in 2020 reflecting growth in compensation for federal government employees.

# TABLE A-18 GUAM GROSS DOMESTIC PRODUCT VALUE ADDED BY INDUSTRY CALENDAR YEARS 2017 – 2021 (Millions of Dollars)

<u>Calendar Year</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Private Industries					
Construction	\$388	\$412	\$453	\$522	\$604
Wholesale and retail trade (1)	624	625	683	496	570
Accommodations, food services, and amusements <sup>(2)</sup>	736	759	838	397	349
Other private	1,962	1,946	2,024	2,039	2,194
Government					
Federal	1,288	1,303	1,353	1,439	1,471
Territorial	1,016	1,007	1,003	1,023	1,046
Gross Domestic Product <sup>(3)</sup>	\$6,013	\$6,051	\$6,355	\$5,916	\$6,234

<sup>(1)</sup> Previously labeled "distributive services."

Source: U.S. Department of Commerce Bureau of Economic Analysis

The BEA reported that the increase in Other private fixed investments reflected growth in equipment and structures with private-sector construction projects including a 60-megawatt solar farm, resort renovations, and retail outlets. Government spending growth reflected an increase in federal spending that was offset by a decrease in territorial government spending. U.S. Department of Defense construction was a notable source of growth, as progress continued on multiple U.S. military projects, including housing and dining facilities for a new Marine Corps base. The increase in personal consumption expenditures was supported by widespread growth among consumer spending categories. Consumer spending was supported by growth in compensation and direct cash assistance administered by the territorial government.

The BEA announced that in 2022, Guam's Real GDP grew 5.1%, higher than any other region in the U.S. Guam's real personal consumption expenditure of goods and services increased 0.4% in 2019, and decreased 5.0% in 2020, reflecting the mandatory reductions in operations for nonessential businesses throughout Guam due to the COVID-19 pandemic. Guam's real personal consumption expenditure of goods and services increased 8.2% in 2022 from the prior year. According to the Guam's Bureau of Statistics and Plans, Guam's consumer price index in 2022 increased 11.2% compared to the same period one year earlier.

According to the U.S. Department of Labor Bureau of Labor Statistics, the average annual wage for residents of Guam increased from \$36,930 in 2019 to \$42,210 in 2022.

#### **Population**

Guam's residents originate from all parts of the Asia-Pacific region in addition to the U.S. mainland. In addition to Guam's indigenous Chamorro people, who comprise approximately 47% of the population, mainland Americans, Filipinos, Chinese, Japanese and South Koreans constitute the bulk of Guam's population. There are also substantial numbers of Micronesian islanders, Vietnamese and East Indians. Guam's diverse population makes it one of the most cosmopolitan communities in the western Pacific.

The U.S. Census Bureau estimates that Guam's population in 2020 was approximately 153,836, the latest data available. Guam currently has 41 public schools (all accredited by the Western Association of Schools and Colleges), 20 private schools, four U.S. DOD schools, seven charter schools, one community college and one university. For the school year 2023-2024, approximately 24,322 students attended Guam's public schools. The University of Guam reported an enrollment of 2,896 undergraduate and graduate students (as of December 2023), and

<sup>(2)</sup> Previously labeled "accommodations and amusement" Includes arts, entertainment, and recreation (NAICS 71) and accommodations and food services (NAICS 72).

<sup>(3)</sup> Estimates for 2018 to 2020 have been revised to incorporate improvements to source data and methods.

the Guam Community College (the "GCC") reported 1,669 undergraduates enrolled (as of January 2023). The University of Guam and Guam Community College both are accredited by the Western Association of Schools and Colleges.

#### **Employment**

Prior to the COVID-19 pandemic, Guam had experienced steady job growth in all sectors, and the total number of jobs increased from 63,410 in Calendar Year 2016 to 67,580 in 2019, an increase of 6.5% over the four-year period.

The December 2024 preliminary employment report released by Guam Department of Labor ("GDOL"); Bureau of Labor Statistics indicated that a total of 68,270 individuals were employed on Guam. Of those employed, approximately 77% of Guam's workforce were in the private sector, with the remainder in government, both local and federal. The total number of jobs increased by 1,060 over December 2023. Employment in December 2024 saw greatest increase in construction, services, and wholesale trade. Employment numbers began a moderate rebound in December 2020, with the recovery continuing in 2024. Employment numbers also rebounded from Category 4 Typhoon Mawar which hit Guam on May 25, 2023.

The distribution of civilian employment on Guam based on payrolls as of December 31 for Calendar Years 2020 through September 2024 is listed by industry in Table A-3. Excluded from the civilian employment estimates in Table A-3 are self-employed individuals, active-duty military personnel, proprietors, volunteers and unpaid family workers. The payroll survey in Table A-19 includes all civilian personnel on payroll, including multiple jobholders counted at each place of employment, and nonresident alien workers.

TABLE A-19 Civilian Employment (1) (as of December for Calendar Years 2020 – 2024)

	<u>2020</u>	2021	2022	2023	<u>2024</u>
Private sector:				·	
Agriculture	300	310	320	250	270
Construction	8,330	9,480	10,820	12,450	12,870
Manufacturing	1,430	1,590	1,600	1,540	1,520
Transportation & Public Utilities	3,690	3,660	3,800	3,670	3,670
Wholesale Trade	2,410	2,270	2,290	2,200	2,370
Retail Trade	10,920	11,410	11,750	12,330	12,410
Finance, Insurance, and Real Estate	2,510	2,370	2,320	2,370	2,370
Services	14,650	15,120	16,320	16,370	16,760
Total private	44,240	46,210	49,220	51,180	52,240
Public sector:					
Federal Government	3,890	3,970	3,900	4,030	4,050
Government of Guam <sup>(2)</sup>	<u>11,910</u>	12,010	12,260	12,000	11,980
Total public	15,800	15,980	16,160	16,030	16,030
Total Payroll Employment	60,040	<u>62,190</u>	<u>65,380</u>	<u>67,210</u>	<u>68,270</u>

Data include both full-time and part-time employees who worked during any part of the pay period, temporary alien workers and employees less than 16 years of age. Data are based upon the number of paychecks issued by employers. Dual and multiple jobholders are counted once for each job held. Proprietors, unpaid family workers, domestic servants and military active-duty personnel are excluded.

Source: Current Employment Report, Department of Labor, Government of Guam

<sup>(2)</sup> Includes temporary contractual employees, autonomous agencies, Agency for Human Resources Development Disaster Recovery and senior/youth employment programs.

The preliminary employment data as of December 2024, showed an increase of total employment by industry division of 1,060 jobs from December 2023. Construction gained 430 jobs, services gained 390 jobs, and wholesale trade gained 170 jobs from December 2024.

#### <u>Unemployment</u>

The Government reports employment and unemployment separately. Prior to the COVID-19 pandemic, Guam's unemployment rate was 3.6% as of September 2019, flat from September 2018.

Table A-4 lists unemployment statistics for September 2019 to September 2023. Differences in the employment figures between Table A-3 and Table A-4 arise as a result of differences in the surveys' coverage and exclusions. For example, the household survey in Table A-4 excludes civilians living within military installations or in military housing, and employees under the age of 16 years.

Pursuant to a September 2020 unemployment report released by the GDOL, the unemployment rate on Guam for September 2020 was 17.9%, an increase of 14.3% from September 2019, reflecting the impact of the COVID-19 pandemic on Guam. The total number of persons unemployed in September 2020 was 12,650, as compared to 2,580 unemployed persons in September 2019.

In the September 2021 unemployment report, the unemployment rate in Guam was 8.8%, a decrease of 9.1% from September 2020 figure of 17.9%. The total number of persons unemployed in this period was 5,660, a decrease from 12,650 in September 2020. The September 2021 figures demonstrate Guam's recovery from the island's closure due to the increase in COVID positive cases since the September 2020 report.

Guam's labor market has been on a steady path to recovery with the unemployment rate falling to 4.6% in September 2022, a decrease of 0.4% from June 2022. This rate also represents a decline of 4.2% from September 2021, when the unemployment rate was 8.8%. According to the latest Unemployment Situation report, the total number of persons unemployed in September 2022 was 3,130, a substantial decrease of 2,530 from September 2021.

The September 2022 unemployment rate of 4.6% is 14.8% below the peak rate of 19.4% in December 2020, when unemployment rose in the U.S. overall due to the COVID-19 pandemic.

In the September 2023 unemployment report, the unemployment rate in Guam was 4.1%, a decrease of 0.3 percentage points or 6.8% from September 2022 figure of 4.4%.

The September 2024 unemployment rate in Guam was 3.4%, a decrease of 0.6 percentage points or 17.1% from September 2023 figure of 4.1%. The total number of persons unemployed in this period was 2,290 from 2,980 in September 2023. The September 2024 figures continue to demonstrate Guam's recovery from the COVID-19 pandemic.

The COVID-19 pandemic had a material adverse effect on employment in Guam. As described under "GENERAL INFORMATION REGARDING THE TERRITORY OF GUAM – COVID-19 Pandemic," the Government received approximately \$1.06 billion from the federal government under the CARES Act for its Pandemic Unemployment Assistance program and the Federal Pandemic Unemployment Compensation program.

Table A-20 shows the annual unemployment statistics for Guam.

TABLE A-20 Unemployment Statistics <sup>(1)</sup> September 2019 – 2024

		Number of	Unemployment
<u>As of</u>	Total Labor Force	<u>Unemployed</u>	Rate (%)
September 2019	70,590	2,580	3.7%
September 2020	70,620	12,650	17.9%
September 2021	69,920	5,660	8.1%
September 2022	71,680	3,130	4.4%
September 2023	71,990	2,980	4.1%
September 2024	67,550	2,290	3.4%

Data include civilian non-institutional population 16 years of age and older but exclude non-immigrant aliens and civilians living within military installations or in military housing. Individuals with one or more jobs or dual jobs are counted once. Source: Guam Department of Labor, Bureau of Labor Statistics

#### Construction

The number and value of building permits generally provide a measure of Guam's construction industry. Building permits constitute an important economic indicator of the type and level of construction activities planned as well as corresponding employment increases once the buildings are completed. Total construction activity in Guam has averaged approximately \$602.2 million annually over the past five years.

Table A-21 lists the dollar value of the construction permits issued during the period from Fiscal Years 2020 through 2024. Values given include permits for new construction and additions.

TABLE A-21
Fiscal Year Building and Construction Permits
Fiscal Years 2020 – 2024 (Dollars in Thousands)

	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	$2024^{(2)}$
Residential	\$36,797	\$98,626	\$100,053	\$98,168	81,438
Commercial & Industrial	149,653	80,191	238,936	22,235	57,974
Government	147,293	100,041	82,250	45,634	144,375
Other <sup>(1)</sup>	45,861	29,070	<u>158,801</u>	86,587	94,305
Total	\$379,612	\$307,928	\$580,040	\$253,860	\$378,092

<sup>(1)</sup> Includes permit renewals, demolitions, relocations and church buildings.

Source: Guam Bureau of Labor Statistics, Department of Labor

In Fiscal Year 2020, despite the COVID-19 pandemic, construction activity increased by approximately \$18.0 million or 4.8% compared to Fiscal Year 2019. Although residential construction declined compared to Fiscal Year 2019, a total of 124 permits for new homes were recorded. In Fiscal Year 2021, construction permitting declined by approximately \$72 million or 18.9% compared to Fiscal Year 2020. The decline in construction permitting in Fiscal Year 2021 reflected a decline in commercial and industrial permitting by 46.4% and government construction permitting by 32.1%. In Fiscal Year 2022, construction permitting increased by approximately \$272 million or 88.4% compared to Fiscal Year 2021. In Fiscal Year 2023, construction permitting decreased by approximately \$326 million or -56.2% compared to Fiscal Year 2022. Commercial and industrial projects included two new restaurants, a construction warehouse, construction of a parking lot for Don Don Donki Mall and a new commercial building. Residential projects included a new 8 building, 64-unit apartment complex and the remaining were for single family dwellings.

<sup>(2)</sup> Preliminary and unaudited.

In Fiscal Year 2024, construction permit increased by approximately \$124 million or 48.9% when compared to Fiscial Year 2023. Major government projects included the reconstruction of the terminal apron and taxiway for the Guam International Airport Authority, construction of a new Guam Waterworks Authority Ugum Reservoir control building, and a new University of Guam student success center, parking lot for the School of Engineering, and building for the School of Nursing. Commercial and industrial projects included construction of a new Bank of Hawaii headquarters building and a new health clinic. Residential projects included construction of 6 new detached homes in the Summer Towers condominium complex and and a new 2 building, 16-unit single family dwellings.

The statistics in this section do not include construction on military bases. For that information, see "Military Procurement of Services and Constructions" and "Recent Military Project Awards" below.

#### Hotel and Residential Construction

In support of Guam's Tourism 2020 Strategic Plan introduced in 2014, the Government marketed Guam to new hotel developers leading to the development of several new hotel and condominium projects in the Tumon Bay area, the lodging area for a majority of the visitors to Guam. The Tsubaki Tower, a 26-story, 340-room five-star hotel, was constructed by P.H.R. Micronesia, Ken Corp. at an estimated cost of \$164 million. Construction was completed in April 2020 and the facility opened on July 1, 2020, following a delay in opening due to COVID-19. Adjacent to the tourist district of Tumon is Summer Towers, a \$100 million four-tower, 192-unit luxury condominium development was completed in 2020.

There are a number of affordable and low-income housing projects currently under construction or in the planning phase. Located in the northern village of Dededo, a \$64.1 million, 240-unit Summer Town Estates is the first low-income housing tax credit development for senior citizens in Guam. Summer Town Estates Phases II, III and IV, a 399-unit low-income housing project financed in part by tax credits, was completed in 2018 (Phase II and III) and in 2020 (Phase IV). Villa Del Mar LLC completed a \$50 million 138-unit housing project off the Kanada-Toto Loop in the central village of Barrigada for low-income families as well as for homeless veterans on Guam, a project funded by federal tax credits.

Also, in the northern part of Guam and adjacent to the Two Lovers Point, a popular tourist destination, the Eiger Towers received approval from the Hybrid Land Use Commission to construct two 20-story condominium buildings. Construction of the phase one tower, with 209 units, is expected to take two years to be completed. Investment on phase one is \$100 million. A second tower will be built on phase two of the project, which will bring the total number of residences up to 335. The Guam Land Use Commission approved construction of a 32-unit apartment between the Gill-Baza and Zero-Down subdivisions in Yigo. Four subdivisions were announced to be constructed in Yigo, including the Bay Gardens, a \$2.3 million 20-home subdivision, Songsong Hills Subdivision, with 72 homes that is expected to be completed in 2025, Tre Vista with 36 homes, and a 28-house gated subdivision next to Perez Acres.

In the central part of Guam, Summer Breeze I, LLC was awarded a \$36.6 million contract on November 26, 2021, to build as many as 64 affordable housing units in Radio Barrigada utilizing federal tax credits. Summer Breeze I opened in December 2023. On November 17, 2020, a groundbreaking was held for a \$4.0 million 17 three-bedroom home subdivision, Paradise Courts, in central Mangilao. Paraidse Courts opened in April 2025. Also, in the central part of Guam, projects to be constructed include a multimillion-dollar housing area and commercial center, Palisades Subdivision, at Tiyan Parkway and a \$1.6 million 8-unit townhomes in Mangilao.

## Commercial, Retail and Office Space Construction

Major ongoing commercial, retail and office space construction projects and projects are underway and have been completed within the last five years. These include, but are not limited to: a new Medical Arts Center, a fisherman's seawall and docking area project, a Guam Trades Academy Headquarters and Training Center, a warehouse facility containing purpose-built cold storage, a charter school, multiple banks, multiple restaurants, retailers and grocery stores. Notably in 2024, the Village of Donki opened opened its first Guam location, which houses various restaurant franchises. Finally, the [Federal Government] built a state-of-the-art facility for the Guam Army National Guard's 1224h Engineering Support Company in Barrigada.

#### **Government Construction Projects**

Major ongoing government construction projects and projects completed within the last five years are described below. Ongoing or recently completed Government construction projects include approximately \$947 billion of new capital improvements.

- On November 17, 2023, UOG held a groundbreaking of two new buildings. The first project is for the construction of a new three-story research facility for the Water and Environmental Research Institute (WERI) of the Western Pacific. The second project is the Margaret Perez Hattori-Uchima School of Health Nursing Annex. The WERI and Nursing Annex construction projects are expected to cost \$22.7 million and are funded through grants from the U.S. Department of Commerce's Economic Development Administration, Department of the Interior funds, the UOG Endowment Foundation, and the University of Guam. The two buildings are expected to be completed in 2025.
- On December 15, 2023, UOG broke ground for the construction of its \$7.9 million School of Engineering. The project's estimated completion date is March 2025. On January 10, 2024, the University of Guam also broke ground for the \$22.9 million Dr. Lucio Chan Tan Student Success Center ("Center"). The Center features 45,000 square feet over two stories and is funded by the USDA Rural Development and a \$1 million gift from Lucio Chua Tan. The Center is expected to be completed in April 2025.
- The Guam Community College's Building 300, a \$4.5 million project that houses a multipurpose auditorium, opened on August 31, 2023. The project is partially funded through the Federal Emergency Management Agency. In addition, on May 6, 2024, the Guam Community College broke ground on a \$3.27 million Workforce Development Center in Barrigada. The project is expected to be completed in 2025.
- GWA has recently completed a \$122 million construction of several improvements to its water and wastewater system that include projects related to water production, treatment, distribution and storage, wastewater collection and treatment. Three projects were deemed critical to the military realignment: (i) upgrading the Northern District wastewater treatment plant (the "Northern District WWTP") to secondary treatment and installing the related outfall diffuser; (ii) refurbishing the interceptor sewer that runs from the Andersen Air Force Base to the Northern District WWTP; and (iii) expanding and rehabilitating the Northern Guam Lens Aquifer Monitoring System including in the northwest field area of the Andersen Air Force Base.
- GWA recently completed construction of new concrete water storage tanks, including a 3-million-gallon Tamuning Tank and the \$35 million Ugum Concrete Reservoir. Construction of the Manenggon Tank is expected to be completed in July 2025.
- GPA awarded a \$534 million project to a consortium led by Korea Electric Power Corporation (KEPCO) as the engineering, procurement and construction turnkey operator for a 198-megawatt combined cycle plant in Dededo. The 198 MW combined-cycle units are estimated to be commissioned by September 30, 2025 (delayed due to damage caused by Typhoon Mawar in May 2023). The new facility will replace the two Cabras power plants, located in Piti near the Jose D. Leon Guerrero Commercial Port (the "Port"), which were left inoperable by an explosion and fire in August 2015. The new facility will allow integration of existing solar photovoltaic sources of renewable energy and an additional 120 megawatts from planned solar photovoltaic farms.
- A \$12.9 million Route 5 Reconstruction and Widening project was completed on April 17, 2024. The project was funded by the Federal Highway Administration and completed by InfraTech International LLC. Route 5 covers the road between Hagat and Malesso.
- GHURA awarded a \$5.59 million contract to construct a new 6,600 sq. ft. Guam Police Department Eastern Substation in Talo'fo'fo (the southern part of Guam) in February 2025.

- A \$10.3 million Chalan Pago-Ordot Multipurpose Center is expected to be completed by May 2025.
- The Guam Department of Education is in the planning stage for the reconstruction of the Simon Sanchez High School in Yigo. The project is authorized in a not-to-exceed financing amount of \$166 million.

#### H-2B Visas

The H-2B program in Guam has allowed employers to bring skilled foreign workers into the U.S. to fill temporary jobs in sectors other than agriculture. Employers of all sizes, primarily in construction but also in a variety of other industries, use the H-2B program when they cannot identify enough skilled U.S. workers to hire.

The denial of nearly all H-2B visas by the U.S. Citizenship and Immigration Service ("USCIS") in Fiscal Years 2016 and 2017 resulted in a labor shortage for Guam. In October 2016, 11 Guam-based companies and the Guam Contractors Association ("GCA") initiated a class-action lawsuit against USCIS and other federal agencies, alleging that, starting in 2016, USCIS began rejecting their H-2B visa petitions for work during exceptionally busy periods at a rate approaching 99% compared to a prior Guam average approval rate of approximately 95% through 2015. In January 2018, the U.S. District Court of Guam preliminarily enjoined USCIS from relying on the failure to satisfy peak-load or one-time occurrence conditions as grounds for denying H-2B visa petitions and ordered USCIS to reconsider H-2B visa petitions that were previously denied (the "2018 Preliminary Injunction Order").

In April 2018, the U.S. District Court of Guam certified a class of businesses in Guam, thereby permitting Guam employers who believed they had unlawful denials of H-2B visa petitions by USCIS to seek temporary relief under the 2018 Preliminary Injunction Order. On May 20, 2022, the District Court of Guam dismissed the case. According to the court order, federal laws passed since the lawsuit was filed have rendered the case moot, and none of the remaining plaintiffs want to pursue the case further. For more information on the federal laws passed, see "National Defense Authorization Act (NDAA)" below.

As of May 6, 2025, there were approximately 4,924 H-2B workers on Guam, the highest it has been in over 30 years. It is expected that higher numbers will be seen for at least the next two years as construction volume is expected to increase in the short term and remain high at least through Fiscal Year 2026 without any significant decrease below current levels.

## National Defense Authorization Act (NDAA)

The 2019 NDAA eliminated the annual cap of 4,000 H-2B workers and further built on the authorization in the 2018 NDAA by providing further flexibility for the U.S. Customs and Immigration Services to administer the H-2B visa program on Guam, specifically, the exemption from the temporary work recruitment until December 31, 2023. It further allows for the admittance of healthcare workers to Guam through the H-2B visa program to augment the increased need for skilled healthcare supporting the military build-up at medical facilities that joint serve members of the armed forces, dependents, and civilians on Guam.

The 2021 National Defense Authorization Act ("2021 NDAA") broadened the options under which a project may qualify under the NDAA provisions, opening the recruiting of foreign labor for smaller contractors and related businesses for their projects that have been left out from previous years NDAAs. The 2021 NDAA included a new provision that specifically allows Guam to bring in H-2B workers for civilian projects, which had not been allowed in previous years.

On February 8, 2022, the USCIS issued updated policy guidance to clarify how petitioners may demonstrate that they qualify for an exemption from the temporary need requirement for a nonimmigrant visa petition for H-2B workers. The new policy states that GDOL will be able to write letters supporting civilian construction contractors' applications for H-2B visa workers in response to the military buildup. A letter from GDOL will validate the contractors need for workers to support the military realignment, such as building more housing. The letter will further validate, upon GDOL review, that the contractors are adversely affected by factors such as worker shortages, for non-military projects. For more information on the annual NDAA, see "Military Procurement of Services and Constructions."

The 2024 NDAA extended the H-2B visa program admission in Guam to December 31, 2029.

#### Other Economic Activity

The Government is seeking, through legislative and regulatory efforts, to streamline business and construction permitting processes, to obtain an exemption from the Jones Act (a federal law that governs domestic shipping, which would expand the market for shipments to Guam and reduce the cost of imports), to develop the captive insurance market for the Asian market, and to continue the pursuit of the visa waiver program for Chinese and Filipino tourists.

Other developments being pursued by the Government, private enterprise or both, include a bonded warehouse on Guam as a consolidation and customs clearance center, a hub for the collection and transshipment of recyclable materials in the region, a redevelopment of the Hagåtña area, light domestic manufacturing of construction materials, expanded eco and sports tourism, and television and commercial film production for Asian producers. In May 2019, filmmakers with Netflix were on Guam filming a movie called "Operation Christmas Drop," which was released in December 2020.

#### **Economic Expansion Initiatives**

#### Agriculture

There are many opportunities available to agricultural producers including establishing a land lease between landowners and agricultural producers to accommodate and identify unique pathways for sustained future in agricultural production. Governor Leon Guerrero is exploring initiatives including developing agriculture incubator programs, establishing a slaughterhouse and creating an agriculture master plan.

#### Aquaculture and Fisheries

As part of the integrated economic strategy, Governor Leon Guerrero is advancing the growth of aquaculture and fishing to create jobs and keep more local dollars circulating in the economy instead of being spent on imports. In April 2019, the Governor signed an executive order creating the Guam Aquaculture Task Force, which is intended to reinvigorate efforts to develop a potentially \$7 billion aquaculture industry, starting with shrimp farming. As part of the task force, the Guam Economic Development Authority ("GEDA") in March 2022, released its Guam Aquaculture Industry Feasibility Study, funded by the U.S. Economic Development Administration. The study provides a comprehensive analysis of Guam's aquaculture industry and serves as a roadmap for policymakers and stakeholders to support the industry.

#### Telecommunication

Guam is equipped with 3G, 4G and 5G broadband coverage and is considered to be the most technologically connected among the surrounding islands in the Pacific. Mobile broadband has rapidly grown since the launch of the High-Speed Packet Access and Long Term Evolution service. DOCOMO PACIFIC, through its parent company NTT DOCOMO INC., officially began operations of its DOCOMO 5G Open Lab Guam on March 27, 2019, at its Tamuning headquarters. The DOCOMO 5G Open Lab Guam is NTT DOCOMO INC.'s first 5G verification center outside of Japan.

Guam-based telco GTA Teleguam ("GTA") is currently building a new cable landing station ("CLS") and data center in Tamuning on the north of the island. The project known as the Alupang data center, began construction in October 2022 and is expected to be completed in October 2025. Once completed the two story building will offer 4 medium wave capacity across 31,000 square feet (2,875 square meters). GTA is also planning to build a new CLS in Inalahan on the southeast of Guam. The two-story building will total around 19,440 square feet (1,800 square meters). Though the site will have a small amount of server space, it will be largely unmanned. The GTA landing station on Guam serves as a crucial hub for telecommunications in the Pacific region. It connects Guam to international

submarine fiber optic cables, facilitating high-speed internet and telecommunications services to Guam itself and the broader Pacific region.

Guam is currently the landing point for 12 subsea cables. In addition to GTA, Tata Communication operates one CLS on Guam and AT&T operates two CLS on Guam.

On January 18, 2024, Google announced the construction of two new undersea cables from Guam to Fiji and to French Polynesia. For Guam, the cables are expected to greatly increase Internet connectivity speeds and reduce latency. Guam plays a part in landing those cables, which in turn will help bridge the digital divide throughout the Pacific. The cost of the projects is currently unknown. The projects are expected be completed by 2026.

On February 5, 2024, SpaceX's Starlink Satellite Constellation began providing global high-speed internet access to Guam and the Northern Mariana Islands.

On February 20, 2024, IT&E announced the installation of 73 miles of fiber optic cables and 5G upgrades to various wireless towers anticipated to deliver faster internet speeds in the southern part of Guam. The \$11.4 million project is expected to be completed between 2025 and early 2026.

On May 8, 2024, GTA announced rolling out GTA Fiber across Guam, the island's largest underground Fiber network. GTA Fiber marks a shift in internet technology with 100% Fiber Internet directly to homes and businesses with speeds up to 1 GIG or 1,000 Mbps.

#### Additive Manufacturing

In efforts to diversify Guan's economy and support Indo-Pacific submarine industrial base needs, Governor Leon Guerrero and the Applied Science and Technology Research Organization of America ("ASTRO") released a project plan for a 3D printing industry and center in Guam. The project is estimated to cost \$38.8 million in the initial two years with implementation starting in Fall 2024.

On December 29, 2020, Governor Leon Guerrero, in partnership with the Guam Economic Development Authority and the Guam Chamber of Commerce, established the Governor's Economic Diversification Working Group, a group charged with executing new industries to rebound from the adverse effects of the COVID-19 pandemic. Proposed alternative industries included:

- Aquaculture and Agriculture
- Alternative Dispute Resolution
- Guam Captive Insurance / Trust Incentives Act Program
- Relocation of High Wealth Businesses/Individuals from Asia
- Pharmaceutical Manufacturing
- Construction & Labor
- Ship Repair
- Safe Haven Port
- Silicon Village Initiative
- Satellite Launching

(Remainder of Page Intentionally Left Blank)

Exhibata B-341

#### NATURAL DISASTERS

#### Climate Change and Risk of Sea-Level Rise and Flooding Damage

Potential impacts of climate change, including rising sea levels, excessive rainfall, stronger tropical storms, drought, ocean acidification, coral bleaching, saltwater intrusion, storm surges, rising temperatures and increased migration, may threaten Guam's security and resources. Pursuant to a July 2019 study released by the University of Guam (the "UOG"), one-third of Guam's coral reefs died between 2013 and 2017 because of rising ocean temperatures caused by increased global carbon dioxide output. The impact of climate change and climate variability may also have detrimental socioeconomic impacts to Guam.

In 2016, the U.S. Department of the Interior granted \$450,000 to Guam for climate change action plan projects that support multi-sector collaboration and long-term planning. Funded projects include (i) a comprehensive report by the UOG of long-term climate change impacts on infrastructure and other assets; (ii) a visual demonstration by the Guam Office of Technology of existing conditions and different climate scenarios; (iii) sustainability planning workshops; (iv) workshops by the University of Guam to build resiliency and strengthen climate change adaptation measures; and (v) updates by the Department of Public Works ("DPW") to the Storm Water Management Plan and Storm Water Manual to account for climate change effects.

The Government has started system-wide coordination and long-range planning efforts to mitigate the potential adverse environmental and socioeconomic impacts of climate change. On August 8, 2019, pursuant to Executive Order No. 2019-19, a Climate Change Resiliency Commission (the "Climate Change Resiliency Commission") was established. The objective of the Climate Change Resiliency Commission is to develop an integrated strategy to build resiliency against the adverse effects of climate change and to reduce contributing factors such as greenhouse emissions. The Guam Coral Reef Resilience Strategy ("GRRS") was developed collaboratively by the Guam Coral Reef Initiative, which includes partners from local and federal agencies, research institutions, non-profit organizations, and the private sector. The goal of the GRRS is to enhance the resilience of Guam's coral reef ecosystems and human communities to the impacts of climate change by 2025.

In September 2019, Governor Lourdes Leon Guerrero and Lt. Governor Joshua F. Tenorio promulgated Executive Order 2019-23, creating a working group of government, academia, private sector, non-profit, and youth partners to transition Guam toward a sustainable future. The Guam Green Growth initiative is a public-private partnership that develops tangible solutions to sustainability challenges and contributes to a green economy for the island region and is facilitated by the University of Guam Center for Island Sustainability.

In November 2020, the Pacific Islands Regional Climate Assessment and the East-West Center published a report entitled *Climate Change in Guam: Indicators and Considerations for Key Sectors*. The report is one in a series of reports aimed at assessing the state of knowledge about climate change indicators, impacts and adaptive capacity of the U.S-Affiliated Pacific Islands and the Hawaiian archipelago. Major challenges detailed in the report on climate change in Guam include hotter weather threatening human health risk, risks to freshwater supplies, increasing wildfire, and the potential for damage to infrastructure caused by future sea level rise and stronger typhoons.

#### **Typhoons**

Historically, Guam has experienced short-term impacts of natural disasters. Since 2000, a total of 23 typhoons (including Typhoon Mawar) have tracked within 200 miles of Guam. In 2002, Typhoon Pongsona caused extensive damage to Guam, destroying 1,300 homes. Typhoon Pongsona passed to the east of the island with wind speeds of 150 mph — equivalent to a Category 4 storm. By contrast, according to reports by FEMA and the American Red Cross, Typhoon Mawar destroyed approximately 437 out of an estimated 55,000 homes which reflects progress in Guam's efforts to harden facilities against disasters.

On May 24, 2023, Typhoon Mawar struck Guam as a Category 4 storm, with strong winds of approximately 140 miles per hour and heavy rains as reported by the National Weather Services (NWS), Guam. Typhoon Mawar, the strongest tropical cyclone to hit the island in over 20 years, caused widespread damage on the island.

President Joseph R. Biden, Jr. approved an emergency declaration on May 25, 2023, stating that a major disaster exists in the territory of Guam and ordered federal aid to supplement territory and local recovery efforts in the areas affected by Typhoon Mawar. The declaration authorized the Federal Emergency Management Agency ("FEMA") to respond to the disaster. Specifically, FEMA was authorized to identify, mobilize and provide, at its discretion, equipment and resources necessary to alleviate the impacts of the emergency. Emergency protective measures, limited to direct federal assistance, under the public assistance program, will be provided at 75% federal funding. On August 9, 2023, President Biden made additional disaster assistance available to Guam to supplement recovery efforts by authorizing the federal cost-share for the major disaster declaration to be increased from 75% to 90%.

Typhoon Mawar affected travelers and visitors who were on Guam during the typhoon. The Guam Visitors Bureau ("GVB") provided assistance to almost 5,000 stranded visitors impacted by Typhoon Mawar. GVB reached out to tour agents, local bus companies, hotels, and industry partners to transport visitors and provide a sense of security by covering a portion of the cost of their lodging and meals as they waited for availability of seats on outbound airlines to their home country.

The Guam International Airport Authority ("GIAA") closed all operations at the A.B. Won Pat International Airport (the "Airport") on May 24, 2023, opened for humanitarian and essential cargo operations on May 27, 2023, and resumed normal operations on May 29, 2023.

The Guam Power Authority ("GPA") restored power service to nearly 99% of pre-Typhoon Mawar customers by July 15, 2023. The GPA received more than 1,500 emergency work clearances for customer related damages such as weather heads.

The Guam Waterworks Authority ("**GWA**") recovered quickly from Typhoon Mawar. The GWA water and wastewater system did not sustain major damage from the storm. Water service was restored to 62% of customers by June 6, 2023 (day 13), to 92% of customers by June 17, 2023 (day 24) and to all 19 municipalities by June 23, 2023 (day 29).

## APPENDIX C

FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2024

## APPENDIX D

## SUMMARY OF CERTAIN PROVISIONS OF THE 2005 INDENTURE AND THE TWELFTH SUPPLEMENTAL INDENTURE

## APPENDIX E

## PROPOSED FORM OF OPINION OF BOND COUNSEL

## APPENDIX F

## PROPOSED FORM OF CONTINUING DISCLOSURE AGREEMENT

#### APPENDIX G

#### DTC AND ITS BOOK-ENTRY ONLY SYSTEM

The Depository Trust Company ("DTC"), New York, NY, will act as securities depository for the 2025A Bonds. The 2025A Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered 2025A Bond certificate will be issued for each maturity of each series of the 2025A Bonds in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of 2025A Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the 2025A Bonds on DTC's records. The ownership interest of each actual purchaser of each 2025A Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the 2025A Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in 2025A Bonds, except in the event that use of the book-entry system for the 2025A Bonds is discontinued.

To facilitate subsequent transfers, all 2025A Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of 2025A Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the 2025A Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such 2025A Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of 2025A Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the 2025A Bonds, such as redemptions, tenders, defaults, and proposed amendments to the 2025A Bond documents. For example, Beneficial Owners of 2025A Bonds may wish to ascertain that the nominee holding the 2025A Bonds for their benefit has agreed to obtain and transmit notices to

Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the 2025A Bonds within a series and maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such series and maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to 2025A Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Authority as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts 2025A Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payment of principal of, redemption price and interest on the 2025A Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Authority or the Trustee on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Authority, the Trustee or the Co-Trustee, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal of, redemption price or interest on the 2025A Bonds to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Authority or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such, payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the 2025A Bonds at any time by giving reasonable notice to the Authority. Under such circumstances, in the event that a successor depository is not obtained, 2025A Bond certificates are required to be printed and delivered. The Authority may decide to discontinue use of the system of book-entry only transfers through DTC (or a successor securities depository). In that event, 2025A Bond certificates will be printed and delivered.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the Authority believes to be reliable, but the Authority takes no responsibility for the accuracy thereof.

The preceding information in this APPENDIX F is supplied by DTC for inclusion herein, and has not been independently verified by the Authority or the Underwriter. No representation is made by the Authority as to the completeness or the accuracy of such information or as to the absence of material adverse changes in such information subsequent to the date hereof.

The Authority cannot and does not give any assurances that DTC will distribute to the Participants, or that the Participants or others will distribute to the Beneficial Owners, payments of debt service on the 2025A Bonds or any redemption or other notices or that they will do so on a timely basis or will serve and act in the manner described in this Official Statement. The Authority is not responsible or liable for the failure of DTC or any Direct Participant or Indirect Participant to make any payments or give any notice to a Beneficial Owner with respect to the 2025A Bonds or any error or delay relating thereto.

None of the Authority, the Trustee and the Co-Trustee shall have any responsibility or obligation to any DTC Participant, any beneficial owner or other persons claiming a beneficial ownership interest in the 2025A Bonds under or through DTC or any DTC Participant, with respect to (i) the accuracy of any records maintained by DTC or any DTC Participant with respect to any beneficial ownership interest in the 2025A Bonds; (ii) the payment by DTC or any DTC Participant of any amount in respect of the principal of and premium, if any, or interest on the 2025A Bonds to any beneficial owner or other person for the 2025A Bonds; or (iii) the delivery to any beneficial owner of the 2025A Bonds, or any other person of any notice which is permitted or required to be given to owners under the 2005 Indenture. None of the Authority, the Trustee and the Co-Trustee shall have any responsibility with respect to obtaining consents from anyone other than the registered owners.

#### BEFORE THE GUAM PUBLIC UTILITIES COMMISSION

REQUEST BY THE GUAM	)	
WATERWORKS AUTHORITY FOR	)	GWA DOCKET 25-[ ]
APPROVAL OF THE ISSUANCE OF	)	
WATER AND WASTEWATER SYSTEM	)	
REVENUE BONDS AND TO APPROVE	)	
ASSOCIATED DOCUMENTS	)	
	_)	

#### **ORDER**

On [	_], 2025, Guam `	Waterworks .	Authority ("GWA	A") petitioned the	Commission for
authority to issue	revenue bonds (	the "Bonds"	) for the purpose	of financing new	capital projects.

The Commission has examined the petition and the findings and recommendations of its regulatory consultant and Administrative Law Judge. After discussion at a duly convened Commission meeting on [\_\_\_\_\_], 2025 and upon specific findings and on motion duly seconded and carried by the undersigned Commissioners, the Guam Public Utilities Commission hereby **ORDERS** that:

- 1. The order approving long-term debt in form attached ("Debt Order"), shall be and is hereby adopted by the Commission.
- 2. GWA is reminded that it must obtain prior approval of the Projects, as scheduled on Exhibit A to the Debt Order, before either procurement can begin on the projects or before proceeds of the Bonds can be expended or committed on them. Any reprogramming of projects and the associated proceeds of the Bonds shall be subject to prior Commission approval.
- 3. GWA must obtain prior approval to use any excess Bond proceeds or contingency funds not previously committed to an approved new project before such excess proceeds of the Bonds or contingency funds can be expended or committed.
- 4. No implied approval is provided by the Commission regarding revenue and expense pro-forma statements utilized in the financing if such statements have not been previously approved by the Commission.
- 5. The Commission authorizes its Chairman to approve any changes to the maximum principal amount of the Bonds to be issued and other matters not inconsistent with the terms of this Order.
- 6. GWA shall provide quarterly reports in a manner approved by the Commission 45 days after the close of each quarter on the actual uses of the Bonds.

Order – Docket 25-					
Request by the Guam Waterworks Authority for Approval of the Issuance of Water and Wastewater System Revenue Bonds and to Approve Associated Documents Page 2					
Dated this [26th] day of June 2025.					
Jeffrey C. Johnson	Peter Montinola				
Chairman	Vice-Chairman				
Doris Flores Brooks	Joseph M. McDonald				
Commissioner	Commissioner				
Michael A. Pangelinan	Rowena E. Perez-Camacho				
Commissioner	Commissioner				

#### BEFORE THE GUAM PUBLIC UTILITIES COMMISSION

REQUEST BY THE GUAM	)	
WATERWORKS AUTHORITY FOR	)	DOCKET 25-[]
APPROVAL OF THE ISSUANCE OF	)	
WATER AND WASTEWATER SYSTEM	)	
REVENUE BONDS AND TO APPROVE	)	
ASSOCIATED DOCUMENTS	)	
	)	

#### ORDER APPROVING LONG-TERM DEBT

On October 27, 2005, this Commission adopted an Order in Docket No. 05-10 (the "2005 Order") approving certain aspects of the proposal of the Guam Waterworks Authority ("GWA") to issue and sell long-term debt in the form of revenue bonds (the "Bonds") pursuant to Article 2 of Chapter 14 of Title 12 of the Guam Code Annotated (the "Act") for the purposes of financing certain additions and improvements to the water and wastewater systems of GWA (the "System").

The proposed form of an indenture pursuant to which the Bonds were proposed to be issued (the "General Indenture") was presented to the Commission at that time. In accordance with the Act, the terms and conditions pursuant to which the Bonds were to be issued, and included in the General Indenture, were approved by the Commission pursuant to the 2005 Order.

GWA executed and delivered the General Indenture, dated as of December 1, 2005, and issued one series of Bonds on December 7, 2005, having the terms and issued for the purposes authorized and approved by Orders of the Commission heretofore adopted (the "2005 Bonds").

On October 29, 2010, this Commission approved an Order in Docket No. 10-03 approving the issuance and sale by GWA of long-term debt in the form of Bonds pursuant to the Act for the purposes of financing certain additions and improvements to the System. GWA issued one series of Bonds on November 23, 2010, having the terms and issued for the purposes authorized and approved by Orders of the Commission heretofore adopted (the "2010 Bonds").

On November 18, 2013, the Commission approved an Order in Docket No. 14-01 approving the issuance and sale by GWA of long-term debt in the form of Bonds pursuant to the Act for the purposes of financing certain additions and improvements to the System. GWA issued one series of Bonds on December 12, 2013, in the aggregate principal amount of \$172,630,000, having the terms and issued for the purposes authorized and approved by Orders of the Commission theretofore adopted (the "2013 Bonds").

On June 26, 2014, the Commission approved an Order in Docket No. 14-05 approving the issuance and sale by GWA of long-term debt in the form of Bonds pursuant to the Act for the purposes of redeeming or retiring all or a portion of the outstanding 2005 Bonds and 2010 Bonds. GWA issued two series of Bonds on August 7, 2014, in the principal amount of \$70,000,000 (taxexempt Bonds) and \$15,600,000 (taxable Bonds), respectively, having the terms and issued for the

Order – Docket 25-\_\_ Request by the Guam Waterworks Authority for Approval of the Issuance of Water and Wastewater System Revenue Bonds and to Approve Associated Documents Page 2

purposes authorized and approved by Orders of the Commission theretofore adopted ("2014 Bonds").

On December 10, 2015, the Commission approved an Order in Docket No. 15-10 approving the issuance and sale by GWA of long-term debt in the form of Bonds pursuant to the Act for the purposes of financing certain additions and improvements to the System. GWA issued one series of Bonds on February 24, 2016, in the aggregate principal amount of \$143,310,000, having the terms and issued for the purposes authorized and approved by Orders of the Commission theretofore adopted ("2016 Bonds").

On September 12, 2017, the Commission approved an Order in Docket No. 17-10 approving the issuance and sale by GWA of long-term debt in the form of Bonds pursuant to the Act for the purposes of redeeming or retiring all or a portion of the outstanding 2010 Bonds. GWA issued one series of Bonds on December 20, 2017 in the aggregate principal amount of \$107,660,000, having the terms and issued for the purposes authorized and approved by Orders of the Commission theretofore adopted ("2017 Bonds").

On March 26, 2020, the Commission approved an Order in Docket No. 20-03 approving the issuance and sale by GWA of long-term debt in the form of Bonds pursuant to the Act for the purpose of redeeming or retiring a portion of the outstanding 2013 Bonds. GWA issued one series of Bonds on August 26, 2020 in the aggregate principal amount of \$166,075,000, having the terms and issued for the purposes authorized and approved by Orders of the Commission theretofore adopted ("2020 Bonds").

On January 25, 2024, the Commission approved an Order in Docket No. 24-03 approving the issuance and sale by GWA of long-term debt in the form of Bonds pursuant to the Act for the purpose of redeeming or retiring a portion of the outstanding 2013 Bonds, 2014 Bonds, 2016 Bonds, 2017 Bonds and/or 2020 Bonds. GWA issued one series of Bonds on March 14, 2024 in the aggregate principal amount of \$133,575,000, and one series of Bonds on April 2, 2024 in the aggregate principal amount of \$51,275,000, in each case having the terms and issued for the purposes authorized and approved by Orders of the Commission theretofore adopted ("2024 Bonds").

GWA has now applied to the Commission for approval of the issuance of one or more additional series of Bonds in an aggregate principal amount not to exceed \$350,000,000 (the "Additional Bonds") for the purpose of financing certain additions and improvements described in Exhibit A to this Order (the "Projects"), subject to the limitations of Public Law 37-103 (the "Public Law") and of the terms and conditions pursuant to which such Additional Bonds are to be issued.

The proposed form of supplemental indenture pursuant to which the Bonds are proposed to be issued (the "Supplemental Indenture") and the proposed form of supplemental indenture pursuant to which the General Indenture is proposed to be amended (the "Amending Supplement")

Order – Docket 25
Request by the Guam Waterworks Authority for Approval of the Issuance
of Water and Wastewater System Revenue Bonds and to Approve Associated Documents
Page 3

have been presented to the Commission (together with certain financial and other relevant information) and are attached hereto, together with the General Indenture, as <u>Exhibit B</u>.

The Commission, having duly considered the application of GWA and the information presented on GWA's behalf and having determined that the issuance of the Additional Bonds for such purposes is just and reasonable, orders as follows:

- 1. The issuance of the Additional Bonds and the terms and conditions pursuant to which the Additional Bonds are to be issued and included in <a href="Exhibit B">Exhibit B</a> are hereby approved; provided, however, that any material modification of the Supplemental Indenture shall be subject to the Commission's prior review and approval. GWA shall have the responsibility of bringing any such material modification or amendment to the Commission's attention.
- 2. The terms and conditions pursuant to which the General Indenture is to be amended by the Amending Supplement as included in <u>Exhibit B</u> are hereby approved.
- 3. For the purpose of financing the Projects, GWA is authorized to borrow funds under the terms and conditions described in Exhibit B. The principal amount of Additional Bonds that may be issued may not exceed \$350,000,000, and shall be the amount projected to be necessary to implement the Projects, and provide for original issue discount (if any), a credit enhancement fee (if applicable), underwriters' discount, other costs of issuance, a debt service reserve fund deposit and capitalized interest (if any). As provided in the Public Law and the Act, the Additional Bonds shall bear interest at such rate or rates and shall be sold for such price or prices as shall result in a net yield to the bondholders not exceeding seven percent (7.0%) per annum. Original issue discount and credit enhancement each shall not be used unless it results in a lower yield on such Bonds, as evidenced by a certificate of GWA. Underwriters' discount (not including original issue discount) shall not exceed one percent (1.0%) of the original principal amount of such Bonds. Other costs of issuance (including, but not limited to, fees and disbursements of bond counsel, printing fees, rating agency fees, initial trustee's fees, consulting engineer fees and the fee of the Guam Economic Development Authority) shall not exceed two percent (2.0%) of the original principal amount of such Bonds. The Additional Bonds shall have a final maturity not later than 40 years from their date of issuance.

[SIGNATURES TO FOLLOW ON NEXT PAGE]

Dated this [26th] day of June 2025.	
Jeffrey C. Johnson	Peter Montinola
Chairman	Vice-Chairman
Doris Flores Brooks	Joseph M. McDonald
Commissioner	Commissioner
Michael A. Pangelinan	Rowena E. Perez-Camacho
Commissioner	Commissioner

## **EXHIBIT A**

## **Projects List**

[to be attached]

## **EXHIBIT B**

[Attach General Indenture and Forms of Supplemental Indenture (Eleventh Supplemental Indenture) and Amending Supplement (Twelfth Supplemental Indenture)]