### GUAM WATERWORKS AUTHORITY

Aturidat Kinalamten Hanom Guahan



## About the Guam Waterworks Authority (GWA)

Guam Waterworks Authority (GWA) is a public authority governed by the Consolidated Commission on Utilities (CCU). They are subject to the regulations of the Guam Public Utilities Commission (PUC). GWA provides water to all of the civilian population of Guam. They also provide sewer service to a large percentage of the civilian population, Andersen Air Force Base and several smaller United States Navy facilities. During FY2023, GWA served more than of 43,650 water customers and 30,750 wastewater customers.

GWA's water supply consists of 120 production wells, one surface water treatment plant, one active production spring, and one "Maui" well. GWA's water distribution system consists of 30 booster pump stations, 25 reservoirs/tanks in service, 586 miles of water distribution lines, and approximately 3,814 fire hydrants, all in the agency's effort to provide more efficient and reliable service to its customers while meeting regulatory requirements.

GWA's wastewater collection system consists of 306 miles of gravity sewer network, 84 sewer pump stations, approximately 34 miles of force main. GWA's wastewater treatment system consists of five wastewater treatment plants and associated 3 outfalls, one shared with DoD.

GWA has undergone significant transformation over the last several years by working to improve the management and operations, including decreasing expenditures, decreasing leak repair times, implementing a meter replacement program and launching a computerized maintenance management system, which includes mobile capabilities, and upgrading its financial management system. These efforts have all contributed to significantly improved operating results since FY2011.

# LEADERSHIP

**Miguel C. Bordallo, P.E.** General Manager

Theresa V.C. Rojas General Counsel

Taling M. Taitano, CPA, CGFM, CGMA Chief Financial Officer

**Christopher M. Budasi** AGM for Administration & Support

Paul J. Kemp, M.S. AGM for Compliance & Safety

Thomas A. Cruz, P.E. AGM for Operations

Jeanet B. Owens AGM for Engineering

### Consolidated Commission on Utilities

Joseph (Joey) T. Dueñas Chairman

Francis E. Santos Vice Chairman, Chairman of Finance & Budget Committee

Peter Roy Martinez Secretary, Chairman of Physical & Cyber Security Committee

Michael T. Limtiaco Commissioner, Chairman of Audit & Rules Committee

Simon A. Sanchez II Commissioner, Chairman of Communications Committee

Full-Time Employees	FY'20	FY'21	FY'22	FY'23	% Change
Administration and Support	86	73	80	77	-4%
Compliance & Safety	16	17	19	19	0%
Engineering	33	34	28	29	4%
Executive Management	44	47	46	43	-7%
Operations: Construction & Maintenance	29	35	31	32	3%
Operations: Water Distribution	48	49	51	48	-6%
Operations: Water Production & Treatment	37	36	36	31	-14%
Operations: Wastewater Collection	54	48	45	48	7%
Operations: Wastewater Treatment	32	30	30	29	-3%
Tot	al 379	369	366	356	-3%



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### MISSION

We will provide outstanding customer service in delivering excellent water and wastewater services in a safe, reliable, responsible, and cost-effective manner.

### VISION

To be a world class provider of water and wastewater services.

# LOCATIONS & HOURS OF OPERATION

### Gloria B. Nelson Public Service Bldg.

688 Route 15 Fadian, Mangilao, Guam 96913 Customer Service Hours: Mon - Fri | 7:00am to 5:00pm

### **Upper Tumon Satellite Office** 578 N. Marine Corps Drive, Upper Tumon,

Guam 96911

- Customer Service Hours: Mon - Fri | 7:30am to 6:00pm Sat | 8:00am to 12:00pm
- Drive-thru Payment Window Service Hours: Mon - Fri | 7:30am to 3:30pm Sat | 8:00am to 12:00pm

### Julale Satellite Office Hagåtña

424 W. O'Brien Drive, Hagåtña, Guam 96913 Hours: Mon - Fri | 8:00am to 5:00pm

### **CONTACT INFORMATION**

Customer Service: (671) 647-7800/3

### **Payment Information**

Pay by Phone: (671) 647-4729 Online: PayGWA.com

Water Outages/Leaks: (671) 646-4211 Hours: 24/7

### **GWA Website**

https://guamwaterworks.org GWA Customer ServiceOnline Portal https://gwa.custhelp.com/

### **GWA Alerts - Email or Text**

For Outage Information or Road Closures Sign up at https://guamwaterworks.org/textalerts

GWA Textalerts QR Code:



\*Hours subject to change due to Public Health Emergency, Holiday, etc. See website for information.

### **ISSUED AUGUST 2024**



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What would you like to see reported on this page? Please let us know by calling us at (671) 300-6851 or emailing us at ccr@guamwaterworks.org.

### **Capital Assets & Improvement Projects**

The Authority had about \$813 million (net of accumulated depreciation) invested in a broad range of utility capital assets as of September 30, 2023. In FY2023, GWA's capital assets decreased by \$1.6 million or -0.2% over FY2022. The decrease resulted from a net increase of \$97.5 million due to utility plant additons offset by a reduction in construction in progress of \$99.1 million.

The investment in capital assets includes building improvements, water treatment plants, water transmission and distribution mains, sewer lines, water reservoirs, pump stations, wastewater treatment facilities, deep wells, meter replacements, fire hydrant replacements, machinery and equipment as shown in the Table below identified by text color (Water Projects are in Blue, Wastewater in Green and all others in Purple. MG = million gallons).



#### Santa Rosa #2 Water Tank (1MG) Constuction Project

Attached photos are of the Santa Rosa #2 Concrete One Million Gallon (1 MG) Water Tank while under construction and the Santa Rosa #1 Steel Water Tank (1 MG) that was in service when these photos were taken. The Santa Rosa #2 Concrete Water Tank was completed and put into service October 2022, and the steel tank is offline and currently under repair.

	In Design/Design Procurement	In Construction/Construction Procurement	Completed
ISLANDWIDE	<ul> <li>Systemwide District Metered Area Project</li> <li>Pressure Zone Realignment Design</li> <li>Asbestos Cement Pipe (ACP) Waterline Replacement</li> <li>Undersized Waterline Replacement</li> <li>General Waterline Replacement</li> <li>Waterline Bridge Crossing Assessment/Repair Design &amp; Construction Management</li> <li>Fire Hydrant Replacement, Phase 2</li> <li>Project/Construction Management for Islandwide Sewer Collection/Transmission System Repair, Rehabilitation, and Replacement</li> <li>Northern District Wastewater Treatment Plant Fats, Oil, and Grease Receiving Station Water &amp; Wastewater Hydraulic Modeling</li> </ul>	<ul> <li>Pressure Zone Realignment Phase II Construction</li> <li>Steel Water Tank Inspection &amp; Repair</li> <li>Islandwide GWA Facility Survey</li> <li>Land Survey Phase II</li> </ul>	<ul> <li>Fire Hydrant Replacement, Phase I</li> <li>Pressure Zone Realignment Phase I Construction</li> <li>Groundwater Production Well Meter Replacement</li> </ul>
SOUTHERN VILLAGES	<ul> <li>Inarajan &amp; Agfayan Booster Pump Station</li> <li>Manenggon #2 Water Tank (2 MG) Construction</li> <li>Ugum #2 Water Tank (2 MG) Construction</li> <li>Santa Rita Spring Rehabilitation Design</li> </ul>	<ul> <li>Brigade II Booster Pump Station Improvement</li> <li>Santa Ana Lower Water Tank (1 MG) Rehabilitation</li> <li>Umatac Subdivision Water Tank (0.5 MG) Rehabilitation</li> <li>Pigua Water Tank (0.5 MG) Rehabilitation</li> <li>Sinifa #1 Water Tank (1 MG) Steel Repair</li> <li>Ugum SWTP Rehabilitation</li> <li>Aplacho Drainage and Roadway Improvements</li> </ul>	<ul> <li>Sinifa #2 Water Tank (1 MG) Concrete Construction</li> <li>Windward Hills Water Tank (1 MG) Steel Rehabilitation</li> <li>Southern Sewer System Evaluation Survey Rehabilitation Phase II</li> </ul>
NORTHERN VILLAGES	<ul> <li>New Production Wells AG-10, AG-12, &amp; Y-8</li> <li>Tamuning #2 (Airport) Water Tank (3 MG)</li> <li>Mataguac BPS Rehabilitation</li> <li>Adacao Water &amp; Sewer Project</li> <li>GilBreeze Water &amp; Sewer Project</li> <li>Fujita Sewage Pump Station Redundant Force Main</li> <li>Tumon and Tamuning Hotspots</li> </ul>	<ul> <li>Water Wells Rehabilitation (A-Series)</li> <li>Astumbo No. 2 Water Tank (2 MG) Rehabilitation</li> <li>Kaiser Water Tank Rehabilitation</li> <li>Santa Rosa #1 Water Tank (1 MG) Repair</li> <li>Yigo Sewer Pump Station Flood Mitigation and Rehabilitation</li> </ul>	<ul> <li>Santa Rosa #2 Water Tank (1 MG) Construction</li> <li>Northern Guam Lens Aquifer Monitoring Wells</li> <li>Northern District Wastewater Treatment Plant Secondary Upgrades and Expansion</li> </ul>
CENTRAL VILLAGES	<ul> <li>Asan Springs Rehabilitation</li> <li>Piti Water Tank (1 MG) Rehabilitation</li> <li>Pago Bay 12-inch Waterline Replacement</li> <li>Dungca Beach Sewer Line Relocation</li> <li>Hagatna Main Sewage Pump Station Redundant Force Main</li> <li>Hagatna Wastewater Treatment Plant and Causeway Structural Assessment</li> <li>Structural Assessment of Lift Stations (Chaot and Commercial Port)</li> <li>GPWA SCADA System</li> </ul>	<ul> <li>Tumon San Vitores &amp; St John's Pressure Regulating Valves</li> <li>Tai Road Waterline Replacement</li> <li>Toto-Canada Road/Blas Street Waterline Replacement</li> <li>Hagatna Wastewater Treatment Plant Interim Disinfection</li> </ul>	<ul> <li>Casimiru Waterline Replacement</li> <li>Reifsnider Waterline Replacement</li> <li>Consolacion Street Temporary BPS Design</li> <li>Balaku Street and Borja Street Waterline Replacement</li> <li>Bayside Sewer Pump Station Improvements</li> <li>Tamuning Sewer Hot Spots Repair/ Rehabilitation</li> <li>Asan-Adelup-Hagatna Route 1 Sewer Rehabilitation and Replacement</li> <li>Asan Temporary Water Booster Pump Station on Constellation Street</li> </ul>



Aturidat Kinalamten Hanom Guahan



An independent audit conducted by Ernst & Young LLP has yielded a favorable outcome for FY2023, resulting in a clean audit opinion on GWA's financial statements. GWA also received a clean compliance audit for all its major federal programs with no audit findings reported. The audited financial statements for GWA were officially issued on June 12, 2024. For a comprehensive overview of our financial details, please visit our website at http://guamwaterworks.org.

To provide a comparative analysis of key metrics spanning FY2021 to FY2023, we've included the tables below showcasing Revenues, Expenses, Water Demand, and Wastewater Demand.

In FY2023, overall operating revenues increased by 6.5% or \$6.6 million over the prior fiscal year. As shown below, water revenues contributed \$2.0 million or 3.1% of that increase and wastewater revenues by \$2.8 million or 7.9% over FY2022. Both exclude System Development Charges. Despite overall water demand decreasing by 4.1% or 217.5 million gallons, a PUC approved rate increase of 5.5% effective October 1, 2022, contributed to the revenue growth. The hotel sector, with a 19.9% or 92.0 million gallon increase, was the top contributor at \$1.9 million. The commercial sector saw only a slight reduction in demand despite a \$741 thousand increase which can be attributed to the rate increase. Because non-residential wastewater revenues are driven by water consumption, revenues showed similar improvements in the hotel sector reflecting an 18.4% or 58.5 million gallon increase resulting in a 24.2% or \$1.6 million increase in revenues. Federal sector growth at 9.9% or 50.1 million gallons added nearly \$1 million in revenues.

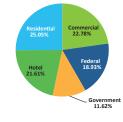
Operating expenses increased by 10.1% or \$9.7 million over FY2022. Power purchases continue to be one of the largest contributing factors of the increase at 31.3% or \$5.8 million due to increasing LEAC (Levelized Energy Adjustment Clause) rates tied to the price of oil. Salaries, wages and benefits increased by \$2.3 million, of which nearly \$900 thousand was expended for Typhoon Mawar restoration. Recovery of typhoon related expenses is not expected until FY2024 or later, either by property insurance claims or through FEMA public assistance funds.

# **Operating Revenues**

				FY23 to FY22 Col			
Water Revenues	FY2021	FY2022	FY2023		Increase / (Decrease)	% Change	
Agricultural	\$ 444,892	\$ 431,070	\$ 368,471	\$	(62,599)	-14.5%	
Golf Course	56,152	70,280	116,491		46,211	65.8%	
Commercial	13,251,332	13,720,269	14,461,167		740,898	5.4%	
Federal	38,596	28,145	25,097		(3,048)	-10.8%	
Government	6,437,468	7,611,024	7,514,091		(96,933)	-1.3%	
Hotel	6,968,351	7,125,401	9,046,164		1,920,763	27.0%	
Irrigation	43,360	39,113	34,965		(4,148)	-10.6%	
Residential	39,816,286	37,709,793	37,209,436		(500,357)	-1.3%	
Total Water Revenues	\$ 67,056,437	\$ 66,735,095	\$ 68,775,882	\$	2,040,788	3.1%	

FY2023 WATER REVENUES BY RATE CLASS Agricultural Golf Cours 0.54% 0.17% 21 03 Federa Irrigati

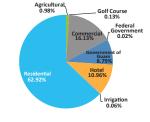
FY2023 WASTEWATER REVENUES BY RATE CLASS



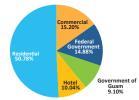


FY2023 WATER DEMAND BY RATE CLASS

FY23 to FY22 Comparison



FY2023 WASTEWATER DEMAND RATE CLASS



				 -123 LO F122 C	omparison
Water Revenues	FY2021	FY2022	FY2023	Increase / (Decrease)	% Change
Agricultural	\$ 444,892	\$ 431,070	\$ 368,471	\$ (62,599)	-14.5%
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Total Water Revenues	\$ 67,056,437	\$ 66,735,095	\$ 68,775,882	\$ 2,040,788	3.1%

Wastewater Revenues		FY2021	FY2022	FY2023	Increase / Decrease)	% Change
Commercial	\$	7,760,006	\$ 8,373,667	\$ 8,538,306	\$ 164,639	2.0%
Federal		5,944,514	6,110,211	7,094,928	984,717	16.1%
Government		3,617,134	4,391,010	4,356,099	(34,911)	-0.8%
Hotel		6,091,381	6,523,248	8,100,157	1,576,909	24.2%
Residential		9,095,570	9,327,418	9,389,071	61,653	0.7%
Total Wastewater Revenues	\$	32,508,605	\$ 34,725,554	\$ 37,478,561	\$ 2,753,007	7.9%

• ·· ·				F١	FY23 to FY22 Comparison		
<b>Operating Expenses</b>	FY2021	FY2022	FY2023		Increase / Decrease)	% Change	
Power purchases	\$ 12,507,537	\$ 18,577,440	\$ 24,397,961		\$ 5,820,521	31.3%	
Water purchases	6,615,983	5,656,471	7,038,954		1,382,483	24.4%	
Sludge (waste) disposal fees	1,415,293	658,813	676,362		17,549	2.7%	
Salaries, wages and benefits	24,240,266	22,191,629	24,470,756		2,279,127	10.3%	
Depreciation	26,869,495	28,462,573	30,911,997		2,449,424	8.6%	
Administrative and general	6,861,923	7,297,610	8,346,930		1,049,320	14.4%	
Contractual	4,247,073	4,492,845	5,421,883		929,038	20.7%	
Retiree benefits	9,707,749	8,864,985	4,621,864		(4,243,121)	-47.9%	
Total Operating Expenses	\$ 92,465,319	\$ 96,202,366	\$ 105,886,707	\$	9,684,341	10.1%	

# Water and Wastewater Demands by Rate Class

				Increase /	0/ Change
Water Demand (in '000 gallons)	FY2021	FY2022	FY2023	(Decrease)	% Change
Agricultural	68,805	65,719	49,748	(15,971)	-24.3%
Golf Course	2,855	3,796	6,415	2,619	69.0%
Commercial	786,157	818,460	816,393	(2,067)	-0.3%
Federal Government	2,069	1,389	1,099	(290)	-20.9%
Government of Guam	404,026	471,943	445,116	(26,827)	-5.7%
Hotel	448,034	462,757	554,767	92,010	19.9%
Irrigation	5,404	4,888	3,242	(1,646)	-33.7%
Residential	3,622,514	3,450,574	3,185,230	(265,344)	-7.7%
Total Water Demand	5,339,864	5,279,526	5,062,010	(217,516)	-4.1%

			_	FY23 to FY22 C	omparison	
Wastewater Demand (in '000 gallons)	FY2021	FY2022	FY2023	Increase / (Decrease)	% Change	
Commercial	566,044	585,512	570,488	(15,024)	-2.6%	
Federal Government	493,841	508,438	558,530	50,092	9.9%	
Government of Guam	303,587	365,856	341,718	(24,138)	-6.6%	
Hotel	297,738	318,491	376,947	58,456	18.4%	
Residential	2,150,617	2,051,330	1,906,036	(145,294)	-7.1%	
Total Wastewater Demand	3,811,827	3,829,627	3,753,719	(75,908)	-2.0%	

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### **Challenges & Outlook**

On May 24, 2023, Typhoon Mawar, one of Guam's strongest storms in decades, struck the island. President Biden's emergency declaration facilitated federal aid from the Federal Emergency Management Agency (FEMA) and the U.S. Navy cooperated with and assisted GWA, which enabled GWA to restore water services across the island within 29 days. Although GWA facilities sustained minimal damage, ongoing coordination with insurance and FEMA for storm-related claims is in progress. However, power system disruptions since the typhoon have led to intermittent water production issues, increased equipment failures, and higher operational costs.

Looking ahead, with rate increases approved for FY2024 and a rise in visitor numbers, GWA remains cautiously optimistic. Continued construction related to the military buildup and potential federal infrastructure investments could benefit both military and civilian systems. However, challenges like regulatory and permitting delays, contractor availability, and rising construction costs persist. GWA also faces difficulties with high employee turnover and recruitment challenges. To address this, the Authority plans to enhance staff training and certification and make adjustments to compensation. Despite legal and administrative hurdles, GWA is improving customer service through upgraded financial systems and advancing capital projects funded by grants and revenue bonds. Upcoming initiatives include improving water distribution, enhancing leak detection, and expanding meter capabilities to better serve customers.

#### **Court Order Compliance**

The deadline for the 2011 U.S. District Court Order has been extended from June 30, 2023, to December 31, 2025. This Order sets deadlines for completing projects initially outlined in a 2003 Stipulated Order and later amended in 2004 and 2006. The final requirement involves repairing, rehabilitating, and replacing water storage tanks. Currently, all remaining tanks needing work are under contract and undergoing repairs. Funding for these projects is secured, and GWA is committed to completing the work by the extended deadline.

#### Partial Consent Decree and Secondary Treatment Upgrades

On January 31, 2024, the U.S. Environmental Protection Agency (US EPA) filed a complaint in the Guam District Court, claiming that GWA violated conditions of its National Pollutant Discharge Elimination System (NPDES) permits. To address these issues, GWA and the US EPA have agreed to a partial consent decree, which has been filed in U.S. District Court. The 2024 Partial Consent Decree mandates GWA to implement specific improvements and planning measures over the next 10 years. These requirements focus on enhancing the wastewater collection system, including upgrades to pipelines, pump stations, and maintenance programs. The Partial Consent Decree also includes conducting planning studies for secondary wastewater treatment at the Hagatña Wastewater Treatment Plant (WWTP). The US EPA issued new NPDES permits effective January 1, 2020 for several WWTPs, including Northern District, Agat-Santa Rita, Umatac-Merizo, and Hagatña. These permits require secondary treatment standards, which all WWTPs except the Hagatna WWTP currently meet.

#### **Emerging Contaminants**

GWA continues to work towards compliance with new US EPA regulations under the Safe Drinking Water Act to address per- and polyfluoroalkyl substances (PFAS). These regulations, expected to take effect in several years, will mandate that public water systems treat source water with PFAS concentrations above a set limit to remove these contaminants before the water enters the distribution system. This will require GWA to design and build new treatment systems to comply with these regulations. Additionally, the Guam Environmental Protection Agency (GEPA) plans to introduce local drinking water regulations for dieldrin, a pesticide compound currently unregulated at the federal level. This will also necessitate the development of new treatment systems to address dieldrin contamination at affected well sites.

#### Water Loss Control Program

The Capital Improvement Program (CIP) for FY2025-FY2029 includes several initiatives to enhance the Water Loss Control Program. Planned projects involve additional phases of Pressure Zone Alignment, valve and piping upgrades, and water line replacements. The Financial Plan for this period also provides for increased leak detection staff and consulting services for District Metered Area (DMA) implementation. Furthermore, GWA plans to introduce Advanced Metering Infrastructure (AMI) meters. These meters will reduce the need for manual data collection by automatically sending daily consumption data to a web-based server. This real-time data will improve monitoring and analysis of water loss, helping to manage and reduce water waste more effectively.

#### **Capital Improvement Program**

Capital improvement program requirements have already been incorporated into the Authority's FY2025-FY2029 5-Year Capital Improvement Program (CIP). The magnitude of GWA's capital requirements has been affected by construction cost increases resulting from construction demand created by the DoD's buildup on Guam. Additionally, the 5- year CIP includes new capital project requirements driven by 2024 Partial Consent Decree compliance and emerging contaminants discussed above. The program also includes accelerated piping infrastructure replacement as discussed above.





### WE WANT TO HEAR FROM YOU!

Do you like this report? Do you believe it should include different or additional information? Please let us know by contacting our General Manager at **mcbordallo@guamwaterworks.org**. More information is available on GWA's website, **www.guamwaterworks.org** or **guamccu.org**.