



TABLE OF CONTENTS

- 1 - About GWA
- 2 - Performance
- 3 - Finances
- 4 - Challenges and Outlook

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 FY2022, GWA served an average of 43,242 water customers and 30,488 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 27 booster pump stations, 24 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, 82 sewer pump stations, approximately 33 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.

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

Drive-thru Payment Window Service Hours:

Mon - Fri | 7:30am to 3:30pm

Upper Tumon Satellite Office

578 N. Marine Corps Drive, Upper Tumon, Guam 96911

Customer Service Hours:

Mon - Fri | 7:30am to 6:00pm

Sat | 9:00am to 1:00pm

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 guamwaterworks.org/textalerts

GWA Textalerts

QR Code:



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

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

Consolidated Commission on Utilities



Joseph (Joey) T. Dueñas

Chairman

Francis E. Santos

Vice Chairman, Chairman of Finance Committee

Michael T. Lintiaco

Secretary, Chairman of Cyber Security, Audit & Rules Committees

Peter Roy Martinez

Commissioner

Simon A. Sanchez II

Commissioner, Chairman of Communications Committee

Full-Time Employees

	FY'19	FY'20	FY'21	FY'22	FY'21-FY'22 % Change
Administration and Support	94	86	73	80	10%
Compliance & Safety	16	16	17	19	12%
Engineering	31	33	34	28	-18%
Executive Management	44	44	47	46	-2%
Operations: Construction & Maintenance	26	29	35	31	-11%
Operations: Water Distribution	48	48	49	51	4%
Operations: Water Production & Treatment	41	37	36	36	0%
Operations: Wastewater Collection	48	54	48	45	-6%
Operations: Wastewater Treatment	29	32	30	30	0%
Total	377	379	369	366	-1%

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 \$814.0 million (net of accumulated depreciation) invested in a broad range of utility capital assets as of September 30, 2022. In FY2022, GWA's capital assets increased by \$46.7 million or 6.1% over FY2021. The increase is attributable to on-going major capital improvement projects associated with a 2011 Federal Court Order, the Authority's five-year Capital Improvement Program (CIP), and the Water Resources Master Plan Update, August 2018.

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).



Northern District Wastewater Treatment Plant Improvement Project's Aerial Shots

One of the major projects completed in FY2022 was the Northern District Wastewater Treatment Secondary Upgrades and Expansion. This will improve effluent water quality to mitigate adverse impacts to the coastal marine environment in Northern Guam. This will also allow to connect new facilities at the new Marine Corps Cantonment at Camp Blaz in the coming year as the first of the facilities at the base come online.

	In Design/Design Procurement	In Construction/Construction Procurement	Completed
ISLANDWIDE	<ul style="list-style-type: none"> Systemwide District Metered Area Project Pressure Zone Realignment Phase 2 Asbestos Cement Pipe Waterline Replacement Undersized Waterline Replacement General Waterline Replacement Waterline Replacement of Various Bridges Design & Construction Management Project/Construction Management for Islandwide Sewer Collection/Transmission System Repair, Rehabilitation, and Replacement 	<ul style="list-style-type: none"> Fire Hydrant Replacement Phase 1 Pressure Zone Realignment Phase 1 Steel Water Tank Inspection & Repair Groundwater Production Well Meter Replacement Islandwide GWA Facility Survey GPWA System Control & Data Acquisition (SCADA) System Land Survey Phase II 	
SOUTHERN VILLAGES	<ul style="list-style-type: none"> Inarajan & Agfayan Booster Pump Stations Manenggon #2 Water Tank (2 MG) Construction Ugum #2 Water Tank (2 MG) Construction Santa Rita Spring Rehabilitation 	<ul style="list-style-type: none"> Brigade II Booster Pump Station Improvement Santa Rita Water Tank (1 MG) Construction Santa Ana Lower Water Tank (1 MG) Rehabilitation Umatac Subdivision Water Tank (0.5 MG) Pigua Water Tank (0.5 MG) Rehabilitation Sinifa Water Tank (1 MG) Construction Ugum SWTP Rehabilitation Southern Sewer System Evaluation Survey Rehabilitation Phase II Aplacho Drainage and Roadway Improvements 	<ul style="list-style-type: none"> Agat-Umatac Water Tank (0.2 MG) Rehabilitation Talofofo Sewer Improvement (5 sewer pump stations) Baza Gardens and Cross Island Road Sewer Pump Station Autodialers and Communication Routers
NORTHERN VILLAGES	<ul style="list-style-type: none"> New Production Wells AG-10, AG-12, & Y-8 Tamuning #2 (Airport) Water Tank (3 MG) Construction Fujita Sewage Pump Station Redundant Force Main GWA/GPA Customer Services Center and Information Technology Renovation, Upper Tumon GWA/GPA Transportation Building Adacao Water and Sewer Infrastructure 	<ul style="list-style-type: none"> Deep Water Well Drilling & Well Rehabilitation Water Wells Rehabilitation (A-Series) Astumbo No. 2 Water Tank (2 MG) Rehabilitation Kaiser Water Tank Inspection/Repair Assessment Santa Rosa Water Tank (1 MG) Construction Northern Guam Lens Aquifer Monitoring Wells Yigo Sewer Pump Station Flood Mitigation and Rehabilitation Upper Tumon Warehouse Renovation 	<ul style="list-style-type: none"> Yigo No. 3 Water Tank (2.5 MG) Rehabilitation Northern District Wastewater Treatment Plant Secondary Upgrades and Expansion
CENTRAL VILLAGES	<ul style="list-style-type: none"> Asan Springs Rehabilitation Piti Water Tank (1 MG) Rehabilitation Consolacion Street Temporary Booster Pump Station Design Dungca Beach Sewer Line Relocation Hagatna Main Sewage Pump Station Redundant Force Main Hagatna Wastewater Treatment Plant Causeway and Facility Structural Analysis Hagatna Wastewater Treatment Plan Interim Disinfection 	<ul style="list-style-type: none"> Tumon San Vitores & St. Johns Pressure Regulating Valves Tai Road Water Line Replacement Toto-Canada Road/Blas Street Water Line Replacement Casimiru Waterline Replacement Reifsnider Waterline Replacement Balaku Street and Borja Street Waterline Replacement Bayside Sewer Pump Station Rehabilitation Tamuning Hot Spots Sewer Line Rehabilitation and Replacement 	<ul style="list-style-type: none"> Asan-Adelup-Hagatna, Route 1 Sewer Line Rehabilitation and Replacement Phase 2

An independent audit conducted by Ernst & Young LLP has yielded a favorable outcome for FY2022, resulting in a clean audit opinion. It's worth noting that GWA has consistently maintained a low-risk auditee status since FY2016. The audited financial statements for GWA were officially issued on August 18, 2023, albeit with some delays attributed to the updating of the Other Post Employment Benefits (OPEB) Report. For a comprehensive overview of our financial details, please visit our website at <http://guamwaterworks.org>.

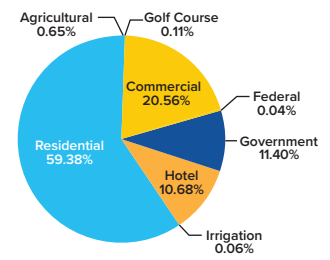
To provide a comparative analysis of key metrics spanning FY2020 to FY2022, we've included the tables below showcasing Revenues, Expenses, Water Demand, and Wastewater Flows.

Notably, in FY2022, total water revenues experienced a marginal decrease of \$321 thousand, roughly 0.5%, while total wastewater revenues saw an increase of \$2.2 million, approximately 6.8%, compared to the previous fiscal year. A shift in consumption behavior occurred in the various customer classes between FY2022 and FY2021 as the pandemic conditions improved. The residential sector dropped (5.3%) which was offset by increases in the government sector by 18.2%, the commercial sector by 3.5% and the hotel sector by 2.3%. Wastewater revenues showed similar improvements over FY2021 in the government, commercial and hotel sectors. Total operating expenses for FY2022 rose by \$3.7 million, representing an approximately 4% increase compared to the previous fiscal year. The most substantial increases were observed in power purchases, which surged by \$6 million, and depreciation, which rose by \$1.6 million.

Operating Revenues

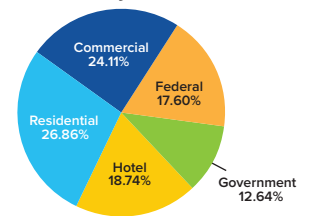
Water Revenues	FY2020	FY2021	FY2022	FY22 to FY21 Comparison	
				Increase/(Decrease)	% Change
Agricultural	\$ 485,425	\$ 444,892	\$ 431,070	\$ (13,822)	-3.1%
Golf Course	85,504	56,152	70,280	14,128	25.2%
Commercial	12,896,717	13,251,332	13,720,269	468,937	3.5%
Federal	25,625	38,596	28,145	(10,451)	-27.1%
Government	6,123,799	6,437,468	7,611,024	1,173,556	18.2%
Hotel	10,237,252	6,968,351	7,125,401	157,050	2.3%
Irrigation	57,432	43,360	39,113	(4,247)	-9.8%
Residential	38,439,018	39,816,286	37,709,793	(2,106,493)	-5.3%
Total Water Revenues	\$ 68,350,772	\$ 67,056,437	\$ 66,735,095	\$ (321,342)	-0.5%

FY2022 Water Revenues by Rate Class



Wastewater Revenues	FY2020	FY2021	FY2022	FY22 to FY21 Comparison	
				Increase/(Decrease)	% Change
Commercial	\$ 7,933,048	\$ 7,760,006	\$ 8,373,667	\$ 613,661	7.9%
Federal	6,108,423	5,944,514	6,110,211	165,697	2.8%
Government	3,423,005	3,617,134	4,391,010	773,876	21.4%
Hotel	9,156,976	6,091,381	6,523,248	431,867	7.1%
Residential	8,977,791	9,095,570	9,327,418	231,848	2.5%
Total Wastewater Revenues	\$ 35,599,243	\$ 32,508,605	\$ 34,725,554	\$ 2,216,949	6.8%

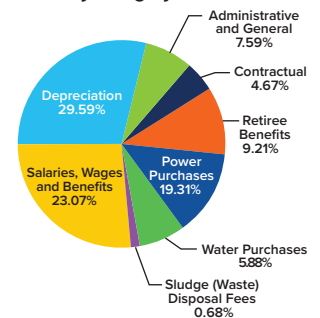
FY2022 Wastewater Revenues by Rate Class



Operating Expenses

Operating Expenses	FY2020	FY2021	FY2022	FY22 to FY21 Comparison	
				Increase/(Decrease)	% Change
Power Purchases	\$ 14,118,145	\$ 12,507,537	\$ 18,577,440	\$ 6,069,903	48.5%
Water Purchases	5,551,065	6,615,983	5,656,471	(959,512)	-14.5%
Sludge (Waste) Disposal Fees	1,277,885	1,415,293	658,813	(756,480)	-53.5%
Salaries, Wages and Benefits	24,192,355	24,240,266	22,191,629	(2,048,637)	-8.5%
Depreciation	25,048,700	26,869,495	28,462,573	1,593,078	5.9%
Administrative and General	7,359,398	6,861,923	7,297,610	435,687	6.3%
Contractual	4,431,836	4,247,073	4,492,845	245,772	5.8%
Retiree Benefits	4,381,255	9,707,749	8,864,985	(842,764)	-8.7%
Total Operating Expenses	\$ 86,360,639	\$ 92,465,319	\$ 96,202,366	\$ 3,737,047	4.0%

FY2022 Operating Expenses by Category



Breakdown of Water Demand and Wastewater Flow by Rate Class

Water Demand (in '000 gallons)	FY2020	FY2021	FY2022	FY22 to FY21 Comparison	
				Increase/(Decrease)	% Change
Agricultural	84,492	68,805	65,719	(3,086)	-4.5%
Golf Course	5,128	2,855	3,796	941	33.0%
Commercial	822,736	786,157	818,460	32,303	4.1%
Federal	1,338	2,069	1,389	(680)	-32.9%
Government	408,502	404,026	471,943	67,917	16.8%
Hotel	714,161	448,034	462,757	14,723	3.3%
Irrigation	8,654	5,404	4,888	(516)	-9.5%
Residential	3,712,723	3,622,514	3,450,574	(171,940)	-4.7%
Total Water Demand	5,757,734	5,339,864	5,279,526	(60,338)	-1.1%

Wastewater Flow (in '000 gallons)	FY2020	FY2021	FY2022	FY22 to FY21 Comparison	
				Increase/(Decrease)	% Change
Commercial	591,972	566,044	585,512	19,468	-3.4%
Federal	542,970	493,841	508,438	14,597	-3.0%
Government	298,457	303,587	365,856	62,269	20.5%
Hotel	480,884	297,738	318,491	20,753	-7.0%
Residential	2,118,282	2,150,617	2,051,330	(99,287)	-4.6%
Total Wastewater Flow	4,032,565	3,811,827	3,829,627	17,800	0.5%

Challenges & Outlook

During FY2022, financial pressure on GWA continued as a result of the delayed economic recovery on Guam, material and supply cost escalation due to the global supply chain crisis and increases in construction costs due to the military buildup. Operating expenses for GWA increased by 4% despite GWA's continued cost-containment measures, outpacing a modest increase in revenues at 1.5% driven by a slight recovery in wastewater revenues for commercial and government sectors. The financial pressure was compounded by the failure of the Guam Public Utilities Commission (PUC) and their consultants, the Georgetown Consulting Group, to take timely action on GWA's petition for rate relief for FY2022 through FY2024. The delay in adjudicating the rate request (17 months for a 5-month review) resulted in no rate relief being granted to GWA in FY2022, and depletion of about 50% of cash reserves set aside for rate stabilization. Just before the end of the fiscal year, the PUC granted a 5.5% increase effective for FY2023, however, the increase was significantly less than what GWA projected it would need.

Looking forward, without needed rate relief, GWA continues to proactively manage operational expenses and prioritize maintenance under the challenging financial conditions characterized by global inflationary pressures, increasing oil (and therefore power) costs, and high demand in the local construction market. Permitting, supply chain, and construction contractor availability issues, meanwhile, will pose challenges to the timely advancement and completion of GWA's capital improvement projects.

Court Order Compliance

While GWA continues to issue design and construction contracts to complete the last remaining requirement of the 2011 Federal Court Order, the challenges described above caused significant delays in the completion of several new concrete water storage reservoirs, as well as the rehabilitation of several existing steel water storage reservoirs in 2022. GWA will seek an extension from the U.S. District Court for the completion of the remaining work on the last of the water storage reservoirs needed to bring the 2011 Court Order to completion after more than 10 years of significant engineering and construction efforts.

Wastewater Treatment - Secondary Upgrades

After completing major upgrades to secondary wastewater treatment plants (WWTP) in Agat-Santa Rita in FY2019, Umatac-Merizo in FY2020, and the elimination of the Baza Gardens WWTP also in FY2020, in FY2022 GWA has completed secondary treatment upgrades at its largest facility, the Northern District WWTP (NDWWTP), greatly improving effluent water quality to mitigate adverse impacts to the coastal marine environment in Northern Guam. Connection of new facilities at the new Marine Corps Cantonment at Camp Blaz is anticipated in the coming year as the first of the facilities at the base come online. The completion of the NDWWTP marks a major compliance milestone for GWA and leaves just the Hagatña WWTP as the last remaining facility needing to be upgraded to secondary treatment. GWA continues to negotiate a compliance schedule for the Hagatña plant with the US Environmental Protection Agency (EPA) and expects to conclude negotiations in FY2023.

Protection of Guam's Sole Source Northern Guam Lens Aquifer (NGLA)

In FY2022, after completing a study outlining steps needed to expand our wastewater collection system in critical portions of our service area to prevent negative impacts to the NGLA from nitrates resulting from unsewered residences, GWA initiated design and construction efforts for the expansion of the collection system and the elimination of cesspools and septic tanks prioritized in areas to protect drinking water sources will be implemented as part of our five-year Capital Improvement Program and our 20-year Water Resources Master Plan. These efforts will continue in FY2023 with anticipated infrastructure grant funding to initiate the priority project identified for the Adacao area in Mangilao. In addition, GWA will see enhanced monitoring data from the expanded NGLA observation well system with seven new and thirteen rehabilitated NGLA observation wells completed in FY2022 through a cooperative agreement with the U.S. Navy under the One-Guam Water Program to facilitate the long-term monitoring and management of the NGLA water resources. In the coming years, GWA also anticipates additional sampling, analyses, and planning for addressing Per- and PolyfluoroAlkyl substances (PFAS) in the NGLA. The US EPA is expected to announce proposed federal regulations for these substances in FY2023 and GWA will need to prepare for compliance with new safe drinking water requirements if and when they are adopted. GWA has several treatment systems in place for these substances, but will likely need to expand treatment capabilities at significant cost at additional sites in northern Guam.

Water Loss Control Program

GWA continues its progress on initiatives intended to address water loss control on several levels, including significant progress on the construction for pressure-zone realignment within the distribution system and implementation of its comprehensive Water Loss Control Plan, which provides for and documents a long-term, sustainable, and holistic approach to monitoring and managing water losses through the establishment of District Metered Areas (DMA). For FY2023, GWA will initiate year 2 of a 3-year implementation plan for DMAs. A pilot study for the DMA program showed potential for up to 45% reductions in water loss. Initial work on DMAs established in FY2022 showed some improvement, but it also identified where more work, such as waterline replacement projects, would be needed in the coming years to sustain water loss reductions. GWA intends to accelerate planned waterline replacements subject to the availability of capital improvement funding.

Wastewater Collection System Improvements

Over the last three years, GWA has made substantial progress in addressing long-standing issues in its aged collection system by completing both phases of its Route 1 (Asan-Adelup-Hagatña) Sewer Line Improvements project, Route 4 Sewer Line Improvements project and rehabilitation of the 9-miles of sewer interceptor piping along Route 3/Route 9 originally installed in the late 1970s. For FY2023 and beyond, GWA anticipates significant investment in the renewal and expansion of its wastewater collection system with existing 5-yr CIP projects, such as the ongoing Hagatña Main Sewage Pump Station and Forcemain improvements, and new compliance projects resulting from negotiated Consent Decree requirements that are close to being finalized.



Outfall Effluent Diffuser Installation Project's Underwater Shots: *These pictures were taken during the installation of diffuser pipes below sea level as part of the Northern District Treatment Plant Upgrades. The project successfully installed a critical environmental upgrade to the existing ocean outfall pipeline designed to protect the coral reef and marine fisheries along Tanguisson Beach. As a result, the project contractor received a national award for "best environmental enhancement project." Read the article using the following link: [Contractor for Guam wastewater outfall diffuser project receives national award | Guam Business | postguam.com](https://www.guambusiness.com/post/guam-wastewater-outfall-diffuser-project-receives-national-award)*



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, [guamwaterworks.org](https://www.guamwaterworks.org) or [guamccu.org](https://www.guamccu.org).