



## 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 FY2021, GWA served an average of 43,148 water customers and 29,793 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, 26 reservoirs/tanks in service, 586 miles of water distribution lines, and approximately 3,395 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 307 miles of gravity sewer network, 82 sewer pump stations, approximately 43 miles of force main. GWA's wastewater treatment system consists of six wastewater treatment plants and associated outfalls.

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 FY2021.

## 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

**Mauryn Q. McDonald, P.E.**  
Chief Engineer (Acting)

## Consolidated Commission on Utilities

**Joseph (Joey) T. Dueñas**  
Chairman

**Francis E. Santos**  
Vice Chairman, Chairman of Finance Committee

**Michael T. Limtiaco**  
Secretary, Chairman of Cyber Security, Audit & Rules Committees

**Peter Roy Martinez**  
Commissioner

**Simon A. Sanchez II**  
Commissioner, Chairman of Communications Committee



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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

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 96931  
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 Alerts - Email or Text

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

**GWA Textalerts**  
QR Code:



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

## Full-Time Employees

	FY2019	FY2020	FY2021	% Change
Administration	180	168	166	-1%
Water Division	110	113	110	-3%
Wastewater Division	87	98	93	-5%
<b>TOTAL</b>	<b>377</b>	<b>379</b>	<b>369</b>	<b>-3%</b>

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**.

The Authority had about \$767.2 million invested in a broad range of utility capital assets as of September 30, 2021. In FY2021, GWA's capital assets increased by \$69.0 million or 9.9% over FY2020.

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. See table to the right:

## Capital Assets, Net of Accumulated Depreciation

	Sept. 30, 2021	Sept. 30, 2020	FY21 to FY20 Comparison		Sept. 30, 2019
			Increase/ (Decrease)	% Change	
Plant, buildings and equipment	\$594,394,314	\$542,672,530	\$51,721,784	<b>9.53%</b>	\$513,020,424
Land	5,240,187	5,240,187	0	<b>0.00%</b>	3,914,815
Construction in progress	167,589,130	150,323,347	17,265,783	<b>11.49%</b>	100,162,506
<b>TOTAL</b>	<b>\$767,223,632</b>	<b>\$698,236,064</b>	<b>\$69,987,567</b>	<b>9.88%</b>	<b>\$617,097,745</b>

## Capital Improvement Projects

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).

	In Design/Design Procurement	In Construction/Construction Procurement	Completed
<b>ISLANDWIDE</b>	<ul style="list-style-type: none"> <li>Pressure Zone Realignment</li> <li>Systemwide District Meter Project</li> </ul>	<ul style="list-style-type: none"> <li>Fire Hydrant Replacement</li> <li>Pressure Zone Realignment Phase 1</li> <li>Steel Water Tank Inspection &amp; Repair</li> <li>Groundwater Production Well Meter Replacement</li> <li>Islandwide GWA Facility Survey</li> <li>GPWA System Control &amp; Data Acquisition (SCADA) System</li> </ul>	
<b>SOUTHERN VILLAGES</b>	<ul style="list-style-type: none"> <li>Inarajan Booster Pump Station</li> <li>Manneggon Water Tank (2MG)</li> <li>Ugum Water Tanks (2MG)</li> </ul>	<ul style="list-style-type: none"> <li>Brigade II Booster Pump Station Improvement</li> <li>Santa Rita Water Tank (1MG)</li> <li>Sinifa Water Tank (1MG)</li> <li>Agat-Umatat Water Tank (0.2 MG)</li> <li>Southern Sewer System Evaluation Survey Rehabilitation Phase II</li> <li>Talofofo Sewer Pump Stations (5 stations)</li> </ul>	<ul style="list-style-type: none"> <li>Pale Ferdinand Water Line Replacement Project</li> <li>Route 2 Agat Sewer Rehabilitation and Replacement</li> <li>Baza Gardens and Cross-Island Road Sewer Pump Station</li> </ul>
<b>NORTHERN VILLAGES</b>	<ul style="list-style-type: none"> <li>New Production Wells (AG-10, AG-12 and Y-8)</li> <li>Tumon No. 1 (Airport) Water Tank (3MG)</li> <li>Fujita Sewage Pump Station Redundant Force Main</li> <li>GWA/GPA Customer Services Center and Information Technology Renovation, Upper Tumon</li> <li>GWA/GPA Transportation Building</li> </ul>	<ul style="list-style-type: none"> <li>Deep Water Well Drilling &amp; Well Rehabilitation</li> <li>Santa Rosa Water Tank (1MG)</li> <li>Water Wells Rehabilitation (A-Series)</li> <li>Northern Guam Lens Aquifer Monitoring Wells</li> <li>Astumbo No. 2 Water Tank (2MG)</li> <li>Yigo No. 3 Water Tank (2.5MG)</li> <li>Northern District Wastewater Treatment Plant Secondary Upgrades and Expansion</li> <li>Yigo Sewer Pump Station Flood Mitigation and Rehabilitation</li> </ul>	<ul style="list-style-type: none"> <li>Northern District Wastewater Treatment Plant Outfall Diffuser</li> </ul>
<b>CENTRAL VILLAGES</b>	<ul style="list-style-type: none"> <li>Asan Springs Rehabilitation</li> <li>Piti Water Tank (1MG)</li> <li>Dungca Beach Sewerline Relocation</li> <li>Hagatna Main Sewage Pump Station Redundant Force Main</li> <li>Hagatna Wastewater Treatment Plant and Causeway Structural Assessment</li> <li>Hagatna Wastewater Treatment Plant Interim Disinfection</li> </ul>	<ul style="list-style-type: none"> <li>Tumon San Vitores Pressure Regulating Valves</li> <li>Tai Road Water Line Replacement</li> <li>Toto-Canada Road/Blas Street Water Line Replacement</li> <li>Bayside Sewer Pump Station Improvements</li> <li>Asan-Adelup-Hagatna, Route 1 Sewer Line Rehabilitation and Replacement Phase 2</li> <li>Tamuning Sewer Hot Spots Repair/Rehabilitation</li> </ul>	<ul style="list-style-type: none"> <li>Central Water Line Replacement Phase IV</li> <li>Route 4 Relief Sewer Line Rehabilitation and Repair</li> <li>Asan-Adelup-Hagatna, Route 1 Sewer Line Rehabilitation and Replacement Phase 1</li> </ul>

### Pale Ferdinand Waterline Replacement Project

The Pale Ferdinand Waterline Replacement Project in Santa Rita was completed in FY2021. 750 linear feet of 8-inch asbestos cement pipe was replaced with new 8-inch PVC pipe to improve the water system. The project included the installation of a new fire hydrant.



Installation of a New Fire Hydrant



Pale Ferdinand Water Line Replacement Project



An independent audit was conducted by Deloitte & Touche LLP, resulting in a clean audit opinion. GWA had been classified as low risk auditee since FY2016. The Office of Public Accountability released GWA's audited financial statements on April 6, 2022. Complete financial information can be found on our website at <http://guamwaterworks.org>.

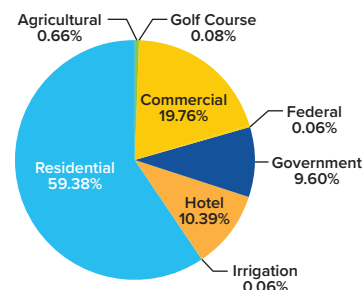
A comparative analysis of Revenues, Expenses and Changes in Percentages, FY2020 – FY2021, as well as prior years amounts, are illustrated in the tables below.

Total water revenues decreased by \$1.3 million or about -2% while total wastewater revenues decreased by \$3.1 million or about -9% over the prior fiscal year as some sectors in Guam's economy continued to be impacted by the COVID-19 pandemic. Modest gains in revenue from the residential sector over FY2020 did not offset revenue losses resulting from reduced revenues in other sectors, despite a 5% rate increase effective October 2020. The consequent effect of the pandemic continued to depress customer demand, particularly the hotel sector, throughout FY2021. Total operating expense increased by \$6.1 million or about 7% over the prior fiscal year. The largest increases were in retiree health care costs and other benefits of \$5.3 million and depreciation of \$1.8 million, both of which were non-cash expenditures.

## Operating Revenues

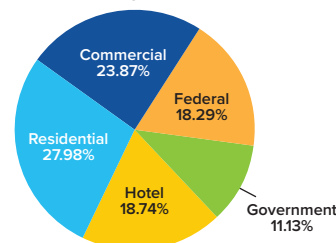
Water Revenues	FY2019	FY2020	FY2021	FY21 to FY20 Comparison	
				Increase/ (Decrease)	% Change
Agricultural	\$ 496,399	\$ 485,425	\$ 444,892	\$ (40,533)	-8.35%
Golf Course	49,903	85,504	56,152	(29,352)	-34.33%
Commercial	13,868,755	12,896,717	13,251,332	354,615	2.75%
Federal	23,137	25,625	38,596	12,971	50.62%
Government	6,233,660	6,123,799	6,437,468	313,669	5.12%
Hotel	14,955,990	10,237,252	6,968,351	(3,268,901)	-31.93%
Irrigation	51,409	57,432	43,360	(14,072)	-24.50%
Residential	34,689,848	38,439,018	39,816,286	1,377,268	3.58%
<b>Total Water Revenues</b>	<b>\$ 70,369,101</b>	<b>\$ 68,350,772</b>	<b>\$ 67,056,437</b>	<b>\$ (1,294,335)</b>	<b>-1.89%</b>

**FY2021 Water Revenues  
by Rate Class**



Wastewater Revenues	FY2019	FY2020	FY2021	FY21 to FY20 Comparison	
				Increase/ (Decrease)	% Change
Commercial	\$ 8,753,399	\$ 7,933,048	\$ 7,760,006	\$ (173,042)	-2.18%
Federal	6,388,022	6,108,423	5,944,514	(163,909)	-2.68%
Government	3,569,358	3,423,005	3,617,134	194,129	5.67%
Hotel	13,178,157	9,156,976	6,091,381	(3,065,595)	-33.48%
Residential	8,934,371	8,977,791	9,095,570	117,779	1.31%
<b>Total Wastewater Revenues</b>	<b>\$ 40,823,307</b>	<b>\$ 35,599,243</b>	<b>\$ 32,508,605</b>	<b>\$ (3,090,638)</b>	<b>-8.68%</b>

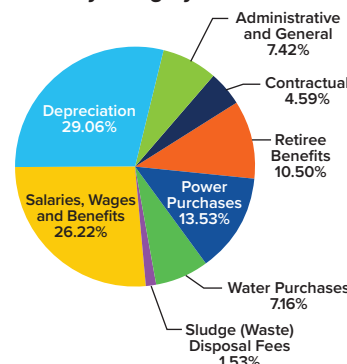
**FY2021 Wastewater  
Revenues by Rate Class**



## Operating Expenses

	FY2019	FY2020	FY2021	FY21 to FY20 Comparison	
				Increase/ (Decrease)	% Change
Power Purchases	\$ 16,150,781	\$ 14,118,145	\$ 12,507,537	\$ (1,610,608)	-11.41%
Water Purchases	6,277,864	5,551,065	6,615,983	1,064,918	19.18%
Sludge (Waste) Disposal Fees	1,333,887	1,277,885	1,415,293	137,408	10.75%
Salaries, Wages and Benefits	21,030,363	24,192,355	24,240,266	47,911	0.20%
Depreciation	21,174,220	25,048,700	26,869,495	1,820,795	7.27%
Administrative and General	8,510,862	7,359,398	6,861,923	(497,475)	-6.76%
Contractual	5,945,478	4,431,836	4,247,073	(184,763)	-4.17%
Retiree Benefits	2,267,681	4,381,255	9,707,749	5,326,494	121.57%
<b>Total Operating Expenses</b>	<b>\$ 82,691,136</b>	<b>\$ 86,360,639</b>	<b>\$ 92,465,319</b>	<b>\$ 6,104,680</b>	<b>7.07%</b>

**FY2021 Operating Expenses  
by Category**



## Breakdown of Water Demand and Wastewater Flow by Rate Class

Water Demand (in '000 gallons)	FY2019	FY2020	FY2021	FY21 to FY20 Comparison	
				Increase/ (Decrease)	% Change
Agricultural	90,803	84,492	68,805	(15,687)	-18.57%
Golf Course	2,793	5,128	2,855	(2,273)	-44.33%
Commercial	906,192	822,736	786,157	(36,579)	-4.45%
Federal	1,602	1,338	2,069	731	54.63%
Government	405,980	408,502	404,026	(4,476)	-1.10%
Hotel	1,079,919	714,161	448,034	(266,127)	-37.26%
Irrigation	7,896	8,654	5,404	(3,250)	-37.55%
Residential	3,359,905	3,712,723	3,622,514	(90,209)	-2.43%
<b>Total Water Demand</b>	<b>5,855,090</b>	<b>5,757,734</b>	<b>5,339,864</b>	<b>(417,870)</b>	<b>-7.26%</b>

Wastewater Flow (in '000 gallons)	FY2019	FY2020	FY2021	FY21 to FY20 Comparison	
				Increase/ (Decrease)	% Change
Commercial	652,842	591,972	566,044	(25,928)	-4.38%
Federal	597,041	542,970	493,841	(49,129)	-9.05%
Government	326,653	298,457	303,587	5,130	1.72%
Hotel	707,934	480,884	297,738	(183,146)	-38.09%
Residential	1,836,324	2,118,282	2,150,617	32,335	1.53%
<b>Total Wastewater Flow</b>	<b>4,120,794</b>	<b>4,032,565</b>	<b>3,811,827</b>	<b>(220,738)</b>	<b>-5.47%</b>

During FY2021, GWA saw the continued effects of the global pandemic with the delta-variant surge impacting the island population and the GWA workforce, as well as the resultant impacts on tourism and related economic activity. Additionally, we began to feel the impacts of the emergent global supply chain crisis and decreased construction market capacity due to the military buildup. These challenges pushed any potential recovery out beyond 2021, and forced GWA to maintain the cost containment measures that were initiated at the start of the pandemic in early 2020. Compounding these challenges, consultants to the Guam Public Utilities Commission (PUC) delayed action on GWA's petition for rate relief for FY2022 through FY2024. For FY2022, GWA is still advocating for adoption of the PUC-required update to our *Five-Year Financial Plan (FY20-FY24) and Capital Improvement Program*.

Looking forward, without needed rate relief, GWA continues to proactively manage operational expenses and prioritize maintenance under the austere financial conditions that are anticipated to prevail for the coming year. While revenue-funded capital maintenance improvements are deferred, GWA continues to push forward with Bond-funded and Federal grant-funded capital improvement projects identified in our *FY20-FY24 Capital Improvement Program*, which the *Consolidated Commission on Utilities (CCU)* recognized as critical to maintaining infusion of revenue into Guam's economy.

#### Court Order Compliance

With funding from the issuance of Series 2020A Bonds, GWA continues to issue design and construction contracts to complete the last remaining requirement of the 2011 Federal Court Order. GWA anticipates completion of several new concrete water storage reservoirs, as well as rehabilitation of several existing steel water storage reservoirs in 2022. Remaining work on the last of the water storage reservoirs is anticipated to be completed in 2023, bringing the 2011 Court Order to completion after more than 10-years of significant engineering and construction efforts.

#### Wastewater Treatment - Secondary Upgrades

After successfully 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 initiated secondary treatment of wastewater at its largest facility, the Northern District WWTP, greatly improving effluent water quality to mitigate adverse impacts to the coastal marine environment in Northern Guam. Although the new secondary treatment plant is in operation, final completion is anticipated by the end of FY2022, which will allow connection of new facilities at the new Marine Corps Cantonment at

Camp Blaz. The completion of the NDWWTP marks a major compliance milestone for GWA, satisfying a priority US Environmental Protection Agency (EPA) requirement in advance of finalization of a negotiated compliance agreement for this facility.

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

In FY2021, GWA completed a study outlining steps needed to expand our wastewater collection system in critical portions of our service area in order to prevent negative impacts to the NGLA. In FY2022, GWA is initiating 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. In addition, GWA will complete the installation of seven new NGLA observation wells in FY2022, and finalize 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.

#### 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 improved system metering. In FY2022, GWA will continue its implementation of District Metered Areas (DMA), which is already at 30% complete. The DMA program showed potential for 45% reductions in water loss in an earlier pilot test program. GWA has initiated its comprehensive Water Loss Control Plan, which provides for and documents a long-term, sustainable and holistic approach to monitoring and managing water losses, and continues its Implementation of the Water Loss Control Program in FY2022.

#### Wastewater Collection

In FY2020, GWA made substantial progress in addressing long-standing issues in its aged collection system by completing a significant portion of its Route 1 (Asan-Adelup-Hagatña) Sewer Line Improvements project and all of the Route 4 Sewer Line Improvements project. GWA also completed the rehabilitation of 9-miles of sewer interceptor piping along Route 3/Route 9 originally installed in the late 1970s. For FY2022, GWA will complete the second phase of construction for the Route 1 project, and continue its progress in the design and construction of the Rehabilitation of the Hagatna Main Pump Station Force Main, and several other projects addressing upgrades to sewer pump stations and force mains at critical locations within our wastewater collection system.



## 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](mailto:mcbordallo@guamwaterworks.org). More information is available on GWA's website, [guamwaterworks.org](http://guamwaterworks.org) or [guamccu.org](http://guamccu.org).