



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

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% |
| TOTAL | 377 | 379 | 369 | -3% |

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

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

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

Pale Ferdinan Waterline Replacement Project

The Pale Ferdinan 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 Ferdinan 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>.

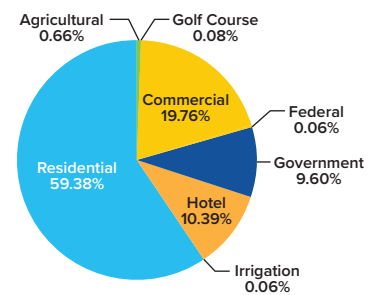
A comparative analysis of Revenues, Expenses and Changes in Percentages, FY2020 – FY2021, as well as prior years amounts, are illustrated in the tables below.

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

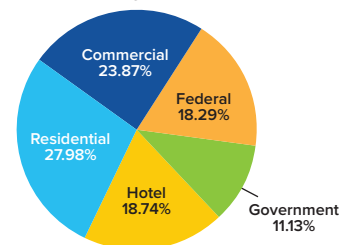
| Water Revenues | FY2019 | FY2020 | FY2021 | FY21 to FY20 Comparison | |
|-----------------------------|----------------------|----------------------|----------------------|-------------------------|---------------|
| | | | | Increase/ (Decrease) | % Change |
| Agricultural | \$ 496,399 | \$ 485,425 | \$ 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% |
| Total Water Revenues | \$ 70,369,101 | \$ 68,350,772 | \$ 67,056,437 | \$ (1,294,335) | -1.89% |

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% |
| Total Wastewater Revenues | \$ 40,823,307 | \$ 35,599,243 | \$ 32,508,605 | \$ (3,090,638) | -8.68% |

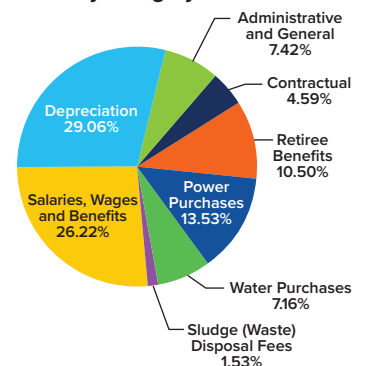
FY2021 Wastewater Revenues by Rate Class



Operating Expenses

| 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% |
| Total Operating Expenses | \$ 82,691,136 | \$ 86,360,639 | \$ 92,465,319 | \$ 6,104,680 | 7.07% |

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% |
| Total Water Demand | 5,855,090 | 5,757,734 | 5,339,864 | (417,870) | -7.26% |

| 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% |
| Total Wastewater Flow | 4,120,794 | 4,032,565 | 3,811,827 | (220,738) | -5.47% |

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. More information is available on GWA's website, guamwaterworks.org or guamccu.org.

Vincent Duenas

From: Benjamin Cruz <bjcruz@guamopa.com>
Sent: Monday, August 22, 2022 12:20 PM
To: Vincent Duenas
Subject: Fwd: GWA 2021 Citizen Centric Report
Attachments: GWA 2021 Citizen-Centric Report.pdf

----- Forwarded message -----

From: <jtarroyo@guamwaterworks.org>
Date: Fri, Jun 3, 2022 at 2:48 PM
Subject: GWA 2021 Citizen Centric Report
To: Benjamin Cruz <bjcruz@guamopa.com>, <speaker@guamlegislature.org>
Cc: Miguel Bordallo <mcbordallo@guamwaterworks.org>, <tmtaitano@guamwaterworks.org>, Christopher Budasi <cbudasi@guamwaterworks.org>, DOREEN T CRISOSTOMO <doreentc@triton.uog.edu>, Clariza Roque <croque@guamopa.com>, <aborjagallardes@guamwaterworks.org>, <idsalujan@guamwaterworks.org>

Hafa Adai!

Please find attached for your information, a copy of GWA's Citizen Centric Report for FY2021. Please note that this has also been posted on our website.

Direct Link: <http://guamwaterworks.org/wp-content/uploads/2022/06/GWA-2021-Citizen-Centric-Report.pdf>

Kind Regards,

Janet Taitano-Arroyo

Internal Auditor



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