



AQUEDUCT AND SEWER
AUTHORITY

AAA

GOVERNMENT OF PUERTO RICO

Fiscal Year 2025 Consulting Engineer's Report for the Puerto Rico Aqueduct and Sewer Authority

Final Report

December 2025

To satisfy the requirements of Section 7.07 of the 2012 Master Agreement of Trust by and between Puerto Rico Aqueduct Sewer Authority and Banco Popular de Puerto Rico as Trustee; and the requirements between Puerto Rico Aqueduct Sewer Authority, the Government of Puerto Rico and the Puerto Rico Fiscal Agency and Financial Advisory Authority.

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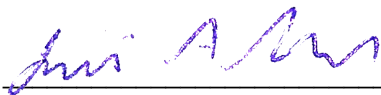
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Acronyms and Abbreviations

AAFAF	Puerto Rico Fiscal Agency and Financial Advisory Authority (Spanish Acronym)
ABT	Additional Bonds Test
ACA	Asset Condition Assessment
ALC	sewer system (Spanish Acronym)
AMI	Automatic Meter Reading and/or Advanced Metering Infrastructure
AMP	Asset Management Program
AOP	All Other Perils
Arcadis	Arcadis Caribe, PSC
ARPA	American Rescue Plan Act
AWIA	America's Water Infrastructure Act
AWWA	American Water Works Association
B	Billions
Berkley	Berkley Insurance Company
BESS	battery energy storage systems
BIL	Infrastructure Investment and Jobs Act of 2021, also known as the Bipartisan Infrastructure Law
BNR	Biological Nutrient Reactor
BOD	Biological Oxygen Demand
BOR	Broker of Record
BPR	Biannual Progress Report
CAGR	Compound Annual Growth Rate
CBA	Collective Bargaining Agreement
CCP	Corrosion Control Plan
CCR	Consumer Confidence Report
CDBG-DR	Community Development Block Grant-Disaster Recovery
CER	Consulting Engineer's Report
CFE	Combined Filter Effluent
CGI	Commonwealth Guaranteed Indebtedness
Chubb	Chubb Insurance Company
CIP	Capital Improvement Program
COE	<i>Centro de Operaciones de Emergencias</i> (Spanish Acronym)

COR3	Central Office for Recovery, Reconstruction, and Resilience
COVID-19	Coronavirus Disease 2019
CSO	Commonwealth Supported Obligations
CSWO	Combined Sewer Overflow
CT	Contact Time
CWA	Clean Water Act
CWSRF	Clean Water State Revolving Fund
D&O	Directors and Officers
DAC	Direct Administrative Costs
DBP	Disinfection Byproducts
DIC	difference in condition
DMR	Discharge Monitoring Reports
DNER	Department of Natural and Environmental Resources
DOT	Department of the Treasury
DSC	Debt Service Coverage
DWO	Dry Weather Overflows
DWSRF	Drinking Water State Revolving Fund
E&O	Errors and Omissions
EGU	Emergency Generator Unit
EMT	Executive Management Team
Eng	Engineer
EPL	Employment Practices Liability
ERI	Economic Research Institute
ERP	Emergency Response Plan
ERS	Employees Retirement System
FAASt	FEMA Accelerated Award Strategy
FEMA	Federal Emergency Management Agency
FOG	Fats, Oils, and Grease
FOMB	Financial Oversight and Management Board
FTE	Full-Time Employees
FY	Fiscal Year

GIS	Geographic Information System
gpm	gallons per minute
GPS	Global Positioning System
GWR	Ground Water Rule
GWUDI	Groundwater Under the Direct Influence of Surface Water
HAA5	Haloacetic Acids
HAZWOPER	Hazardous Waste Operations and Emergency Response
HIEPAAA	<i>Hermanidad Independiente de Empleados Profesionales de la Autoridad de Acueductos y Alcantarillados</i>
HMGP	Hazard Mitigation Grant Program
HR	Human Resources
HUD	U. S. Department of Housing and Urban Development
IMP	Integrated Maintenance Program
IT	Systems and Information Technology
ISS	Integrated System for Security
KPI	Key Performance Indicators
km	kilometer
kWh	kilowatt-hour
LCR	Lead and Copper Rule
LCRI	Lead and Copper Rule Improvements
LCRR	Lead and Copper Rule Revisions
LCRR/LCRI	Revised Lead and Copper Rule Revisions/Improvements
LED	Light Emitting Diode
LSL	Lead Service Lines
LT2ESWTR	Long-Term 2 Enhance Surface Water Treatment Rule
LTP1	Short Long-Term 2 Projects
LTP2	Mid Long-Term 2 Projects
LTP3	Long-Term 2 Projects
LUMA	LUMA Energy, operator of PREPA's electricity distribution in Puerto Rico
M	Million
MAPFRE	MAPRE PRAICO Insurance Company
MARSH	MARSH Puerto Rico, Inc.

MAT	Master Agreement of Trust
MCL	maximum contaminant levels
MDT	Mobile Data Terminals
MG	million gallons
MGD	Million Gallons per Day
MNC	Minor Non-Compliance
N	Nitrogen
ng/L	nanograms per Liter
NPDES	National Pollutant Discharge Elimination System
NPW	Non-Potable Water
NRW	Non-Revenue Water
O&M	Operation & Maintenance
OATRH	<i>Oficina de Administración y Transformación de los Recursos Humanos</i> (Spanish Acronym)
OCIP	Owner Controlled Insurance Program
ORANF	<i>Oficina de Recuperación de Agua No Facturada</i> (Spanish Acronym)
OSHA	Occupational Safety and Health Administration
P	Phosphorous
PA	Public Assistance
PCS	Process Control System
PE	Professional Engineer
PFAS	Per-and Polyfluoroalkyl Substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PMC	Program Management Consultants
PML	Probable Maximum Loss
PMO	Project Management Office
PO	Purchase Order
POSE	<i>Programa de Orientación Social al Empleado</i>
PPA	Power Purchase Agreements
ppt	parts per trillion
PRASA	Puerto Rico Aqueduct and Sewer Authority

PRDOH/DOH	Puerto Rico Department of Health
PREB	Puerto Rico Energy Bureau
PREPA	Puerto Rico Electric Power Authority
PRIFA	Puerto Rico Infrastructure Financing Agency
PROMESA	Puerto Rico Oversight, Management, and Economic Stability Act
PRWEA	Puerto Rico Water and Environmental Association
PWS	Potable Water Systems
QSAR	Quarterly Settlement Agreement Report
R&R	Renewal and Replacement
RFP	Request for Proposal
ROC	Remote Operating Centers
RWI	Raw Water Intakes
RWPS	Raw Water Pump Stations
RWWTP	Regional Wastewater Treatment Plant
SaaS	Software as a Service
SAHFI	SRF Supplemental Appropriation for Hurricanes Fiona and Ian
SAMP	Strategic Asset Management Plan
SAP	Systems, Applications, and Products in Data Processing
SCADA	Supervisory Control and Data Acquisition
SDWA	Safe Drinking Water Act
SEC	U.S. Securities and Exchange Commission
SIR	self-insured retention
SNC	Significant Non-Compliance
SOLPE	<i>Solicitud de Pedido</i> (Spanish Acronym)
SOP	Standard Operating Procedure
SRCP	Spill Response and Cleanup Plan
SRF	State Revolving Fund
SSMC	Sewer System Maintenance Crew
SSO	Sanitary Sewer Overflow
SSOMP	Sewer System Operation & Maintenance Plan
STS	Sludge Treatment System

TA	technical assistants
TIV	Total Insurable Value
TOC	Total Organic Carbon
TSO	operational service workers (Spanish Acronym)
TSS	Total Suspended Solids
TTHM	Trihalomethane
U.S.	United States
UCMR5	Fifth Unregulated Contaminant Monitoring Rule
UIA	<i>Unión Independiente Auténtica</i>
UIA-AAA	<i>Unión Independiente Auténtica de la Autoridad de Acueductos y Alcantarillados</i>
UMS	Utility Metering Solutions, LLC
USDA RD	U.S. Department of Agriculture Rural Development
USDOJ	U.S. Department of Justice
USEPA	U.S. Environmental Protection Agency
VARTOL	Values at Risk at the Time of Loss
VHCC	Visualization and Hydraulic Control Center
WM	Warehouse Management
WPS	Water Pump Station
WRO	Water Recovery Office
WST	Water Storage Tank
WTP	Water Treatment Plant
WWPS	Wastewater Pump Station
WWTP	Wastewater Treatment Plant

Disclaimer

This Consulting Engineer's Report (CER) considers the financial projections and Capital Improvement Program (CIP) included in the Puerto Rico Aqueduct and Sewer Authority's (PRASA) 2025 Certified Fiscal Plan as certified by the Oversight Board on May 30, 2025 (2025 PRASA Fiscal Plan), PRASA's FY2025 Annual Budget approved by the Oversight Board on June 27, 2025.

Statement of Disclosure

This document was prepared solely for the benefit and use of PRASA for the discrete purposes set forth herein. PRASA did not request Arcadis to provide, and Arcadis does not offer to provide, nor did or will it provide, any services constituting the services of a "municipal advisor" as defined by the Securities Exchange Act of 1934, as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act (Pub.L. 111-203, H.R. 4173) and regulations promulgated thereunder, or any successor statute or provisions thereto. Accordingly, Arcadis is not a municipal advisor registered with the U.S. Securities and Exchange Commission (SEC).

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Arcadis is required to make disclosures stating the limitations of the work contained within the FY2025 CER and its use. In accordance with the Securities Exchange Act of 1934, the following disclosure statements are incorporated into the FY2025 CER prepared by Arcadis. Arcadis prepared this FY2025 CER for PRASA; hereinafter referred to individually as the "Authorized Recipient."

In the performance of its services on behalf of PRASA and any Authorized Recipient, Arcadis is (a) not recommending any action on behalf of the Authorized Recipient regarding municipal financial products or the issuance of municipal securities; (b) not acting as a municipal advisor to the Authorized Recipient, and does not owe a fiduciary duty to the Authorized Recipient pursuant to Section 15B of the Securities Exchange Act of 1934, as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act, concerning the information and material prepared in connection with this scope of work; and (c) acting for its own interests. PRASA shall engage a registered municipal advisor and discuss any information and material prepared in connection with this document with any, and all internal and external registered municipal advisors, others financial advisors, and experts that the Authorized Recipient deems appropriate before acting on this information and material.

PRASA acknowledges that: (a) it shall retain the services of an independent registered municipal advisor, which, during the past two years, was not associated with Arcadis, and that (b) Arcadis is required to comply with the requirements set forth in the federal Exchange Act, Municipal Advisor Rule (17 CFR 200, 240, 249), which requires that the engineering company (i) receive from the municipal entity a representation in writing that it is represented by, and will rely on the advice of, an independent registered municipal advisor; (ii) provide written disclosure to the municipal entity that Arcadis is not serving as a municipal advisor and, with respect to the municipal entity, is not

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Arcadis devoted effort in the construction and preparation of this document is consistent with (i) the degree of care and skill ordinarily exercised by members of the same profession currently practicing under the same or similar circumstances and (ii) the time and budget available for its efforts to ensure that the data contained in the FY2024 CER is accurate as of the date of its preparation. This document was based on estimates, assumptions, and other information developed by Arcadis from its independent research effort, general knowledge of the industry, and information provided by and consultations with the Authorized Recipient and the Authorized Recipient's representative and consultants. No responsibility was assumed for inaccuracies in reporting by the Authorized Recipient, the Authorized Recipient's agents and representatives, or any third-party data source used in preparing or presenting this study. Arcadis assumes no duty to update the information contained in the FY2025 CER unless it is separately retained to do so according to a written agreement signed by Arcadis and PRASA.

This opinion is based upon information provided by, and consultations with, PRASA. Arcadis did not independently verify the accuracy of the information provided by PRASA and others in creating this opinion; however, Arcadis's opinion is based upon the supposition that such sources are reliable, and the information obtained from them is appropriate for the analysis undertaken and the conclusions reached. To the extent that the information provided to Arcadis by PRASA and others is not accurate or not inclusive of all details, the conclusions and recommendations contained in the opinion may vary and are subject to change. Arcadis assumed and assumes no responsibility for inaccuracies in reporting by PRASA or any third-party data source used in preparing such an opinion.

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Arcadis relied on assumptions, forecasts, data, and statistics provided by PRASA, its other consultants, and published industry references. Arcadis reviewed the PRASA-prepared forecast over a future six-year period of time and "forward-looking statements." These statements relate to Arcadis's expectations, beliefs, intentions, or strategies regarding the future. These statements may be identified by the use of words like "anticipate", "believe", "estimate", "expect", "intend", "may", "plan", "project", "will", "should", "seek", and similar expressions. The forward-looking statements reflect Arcadis's views and assumptions concerning future events as of the date of this document and are subject to future economic conditions and other risks and uncertainties. Actual and future results and trends could differ materially from those outlined in such statements due to various factors, including, without limitation, those that will be discussed in this FY2024 CER. These factors are beyond Arcadis's ability to control or predict.

Accordingly, Arcadis makes no warranty or representation that any of the projected values or results contained in this document will be achieved.

Unless otherwise stated, this FY2025 CER summarizes the work completed through September 30th, 2025, to align with the annual Budget Review Report. Changed conditions occurring or becoming known after such date could affect the material presented and the conclusions reached herein to the extent of such changes. Arcadis has no responsibility for updating this report for changes that occur after the date of the report.

This document is qualified in its entirety by, and should be considered in light of, these limitations, conditions, and considerations.

Executive Summary

E.1. Introduction

The Puerto Rico Aqueduct and Sewer Authority (PRASA) is a public utility that owns and operates water and wastewater infrastructure in Puerto Rico. PRASA serves approximately 3.2 million (M) residents¹ and millions of visitors annually throughout an area of 3,535 square miles. PRASA owns many assets, including land, buildings, dams, wells, water and wastewater treatment facilities, pump stations, ocean outfalls, buried infrastructure, vehicles, equipment, and water meters.

Arcadis Caribe, PSC (Arcadis), has been retained by PRASA as their Consulting Engineer for the preparation of the Consulting Engineer's Report (CER) to satisfy the reporting requirements specified in Section 7.07 of the Master Agreement of Trust (MAT), as amended, by and between PRASA and Banco Popular de Puerto Rico as Trustee, and the requirements between PRASA and the Government of Puerto Rico.

As required by Section 7.07 of the MAT, unless the Senior Bonds have been rated investment grade by at least two Rating Agencies for 24 consecutive months, the Consulting Engineer shall prepare a CER to document the current condition and changes, if any, in PRASA's operation and the performance of the system. Arcadis prepared this CER for FY2025 (2025 CER or the "Report") in compliance with the MAT. PRASA's fiscal year (FY) begins on July 1st and ends on June 30th. For example, FY2025 is the FY from July 1st, 2024, through June 30, 2025.

E.2. PRASA's Fiscal Situation

Over the past several years, the Government of Puerto Rico has faced significant economic and demographic challenges that have adversely impacted PRASA. In addition to the economic downturn that has been experienced in Puerto Rico, like many other municipal water and wastewater utilities around the world, PRASA continues to face several major challenges, including service affordability, aging infrastructure, high volume of non-revenue water (NRW), regulatory mandates, system vulnerabilities to climate change and natural disasters, declining population and water consumption, workforce challenges, and increasing capital and renewal and replacement (R&R) needs. In addition, Puerto Rico suffered economic, infrastructural, and operational impacts because of Hurricanes Irma and María in 2017, a series of earthquakes in 2019 and 2020, the Coronavirus Disease 2019 (COVID-19) pandemic, and Hurricane Fiona in 2022.

On June 30, 2016, the United States (U.S.) Congress enacted the Puerto Rico Oversight, Management, and Economic Stability Act (PROMESA). PROMESA created the Financial Oversight and Management Board (FOMB) for Puerto Rico to provide financial and other oversight of the Government and its agencies, including PRASA. The FOMB oversees the development of budgets and fiscal plans for Puerto Rico's Central Government and its covered entities, including PRASA.

Under PROMESA's requirement for the submission of a Fiscal Plan, on May 30, 2025, the FOMB certified PRASA's most recent Fiscal Plan, according to Section 201(d)(2) of PROMESA (2025 PRASA Fiscal Plan). The 2025 PRASA Fiscal Plan promotes PRASA's mission of providing high-quality drinking water and sanitary service at the lowest possible cost. Provided that the Certified Fiscal Plan is successfully executed and the financial and operational sustainability objectives are achieved, PRASA will be able to maintain access to credit markets at reasonable rates

¹ Source: U.S. Census Bureau as of July 1st, 2024.

and, as needed, to meet borrowing requirements, enabling it to continue to provide an essential service to its customers.

The 2025 PRASA Fiscal Plan provides for its Capital Improvement Program (CIP) to cover 15 years from FY2025 to FY2039 (the CIP) and PRASA's 15-year forecast covering preliminary results for FY2025 and projections for FY2026 through FY2039 (the Forecast). In addition, PRASA's CIP has been restructured to optimize the use of federal funding, achieve a more resilient and reliable water and wastewater system, improve water quality, ensure consistency with PRASA's long-term goals, and ultimately achieve financial sustainability.

PRASA has implemented various initiatives and has secured funding from various sources to improve its fiscal situation, which includes:

1. Federal Debt Modification: On July 26, 2019, PRASA modified its debt obligations under the State Revolving Fund (SRF) programs and the U.S. Department of Agriculture Rural Development (USDA RD) loans. The benefits of this federal debt modification were:
 - a. Reduction of interest rates and extension of the amortization period, resulting in a debt service relief of approximately \$370 M over the following 10 years.
 - b. Termination of existing Commonwealth guarantees over the Federal Debt, reducing overall Government contingent liabilities by approximately \$1 billion (B).
 - c. Access to new loans (classified as senior indebtedness) from the SRF and USDA RD programs.
2. 2020 and 2021/2022 Refunding: The 2020 Senior Bonds refinanced most of PRASA's outstanding 2008 Bonds, resulting in \$350M in total debt service savings and addressing PRASA's outstanding Commonwealth-guaranteed debt. The subsequent 2021/2022 Bonds refinanced the \$1,806M 2012 Senior Bonds, further reducing total debt service by \$570M. These transactions also included amendments to the revenue pledge and payment order, which remain subject to Federal Lenders' consent.
3. Rate Adjustments: PRASA implemented a simplified rate structure allowing annual increases between 2% and 5%, with a cumulative cap of 30% starting in FY2024. Future rate adjustments will be tied to operational, capital, and reserve needs under MAT. Current forecasts indicate sufficient funding for obligations and capital projects; however, further assessments may be needed if federal funding is reduced or if major projects like Advanced Metering Infrastructure (AMI) are delayed. Annual rate changes will be reviewed as financial projections are updated.
4. Energy Management: Electricity is PRASA's second-largest expense, and rising rates are a budget concern. To reduce costs and reliance on PREPA/LUMA, PRASA is expanding Power Purchase Agreements (PPAs), implementing energy-saving measures, and developing microgrid projects using renewable energy. These efforts aim to further lower consumption and increase the share of clean energy in its operations.
5. Federal Funds for Disaster Recovery and Resilience: As a result of damage caused by the 2017 Hurricanes (Hurricanes Irma and María), 2020 earthquakes, Hurricane Fiona, and other natural events, PRASA qualified for federal funding for infrastructure disaster recovery and mitigation projects. Additional federal support was allocated for disaster relief and hazard mitigation efforts, including reconstruction, recovery, environmental protection, and infrastructure enhancements. The main sources of federal funding for disaster recovery are Federal Emergency Management Agency (FEMA's) Public Assistance (PA) and Hazard Mitigation Grant Programs (HMGP); U.S. Department of Housing and Urban Development (HUD's) Community Development Block Grant – Disaster Recovery (CDBG-DR) and Mitigation (CDBG-MIT) Programs; and supplemental or special projects from U.S. Environmental Protection Agency (USEPA) and USDA RD. SRF Program funds are allocated as loans or grants for water and sanitation infrastructure, pollution control, and other projects, with additional appropriations provided through the Bipartisan Infrastructure Law (BIL) and SRF Supplemental

Appropriation for Hurricanes Fiona and Ian (SAHFI) Programs. Table ES-1 includes a summary of the identified, obligated, and received funds as of March 31, 2025.

Table ES-1 Federal Funding Summary (As of March 31, 2025, \$ in M)

Fund Name	Program	Funding Source	Identified Amount	Obligated/ Approved	Received
Reconstruction and Recovery	Permanent Work	FEMA (PA)	\$3,662.7	\$3,662.7	\$67.1
	Permanent Work (Working Cap Adv)	FEMA (PA)	-	-	\$452.1
	Disaster-Related Hazard Mitigation	FEMA (406)	\$2,738.9	\$1,071.0	-
	Non-Disaster Related Hazard Mitigation (HMGP)	FEMA (404)	\$421.6	\$22.6	\$10.3
	CDBG-MIT	HUD	\$349.5	\$122.6	-
	CDBG-DR (Non-Federal Match Program)	HUD	\$406.9	\$400.0	\$13.7
	Direct Administrative Costs (DAC)	FEMA (PA)	\$213.6	\$213.6	-
	SRF – SAHFI	USEPA	\$555.0	\$545.0	-
	RD – Harvey, Irma, and María Grant	RD	\$24.7	\$24.7	\$24.7
	Emergency Communities Water Assist.	RD	\$3.6	\$3.6	\$3.6
	CY22 Disaster Grants (Fiona)	RD	\$18.4	\$18.4	\$18.4
	Reconstruction & Recovery Funds		\$8,394.9	\$6,084.3	\$589.9
	Infrastructure Funds	CWSRF – Regular + BIL	USEPA	\$322.3	\$282.0
DWSRF – Regular + BIL		USEPA	\$268.5	\$193.7	\$61.4
Total Funds for Infrastructure Projects		\$590.8	\$475.7	\$183.1	
Total			\$8,985.7	\$6,560.0	\$773.0

E.3. Organization and Management

PRASA is organized into five Regions (North, South, East, West, and Metro) and is managed by an Executive Management Team (EMT) that provides the day-to-day management oversight and coordination for all institutional activities and is governed by a multi-disciplinary Board. The organization includes various departments, including, but not limited to, finance, human resources (HR), customer services, legal, and information systems. Figure ES-1 shows PRASA's current organization.

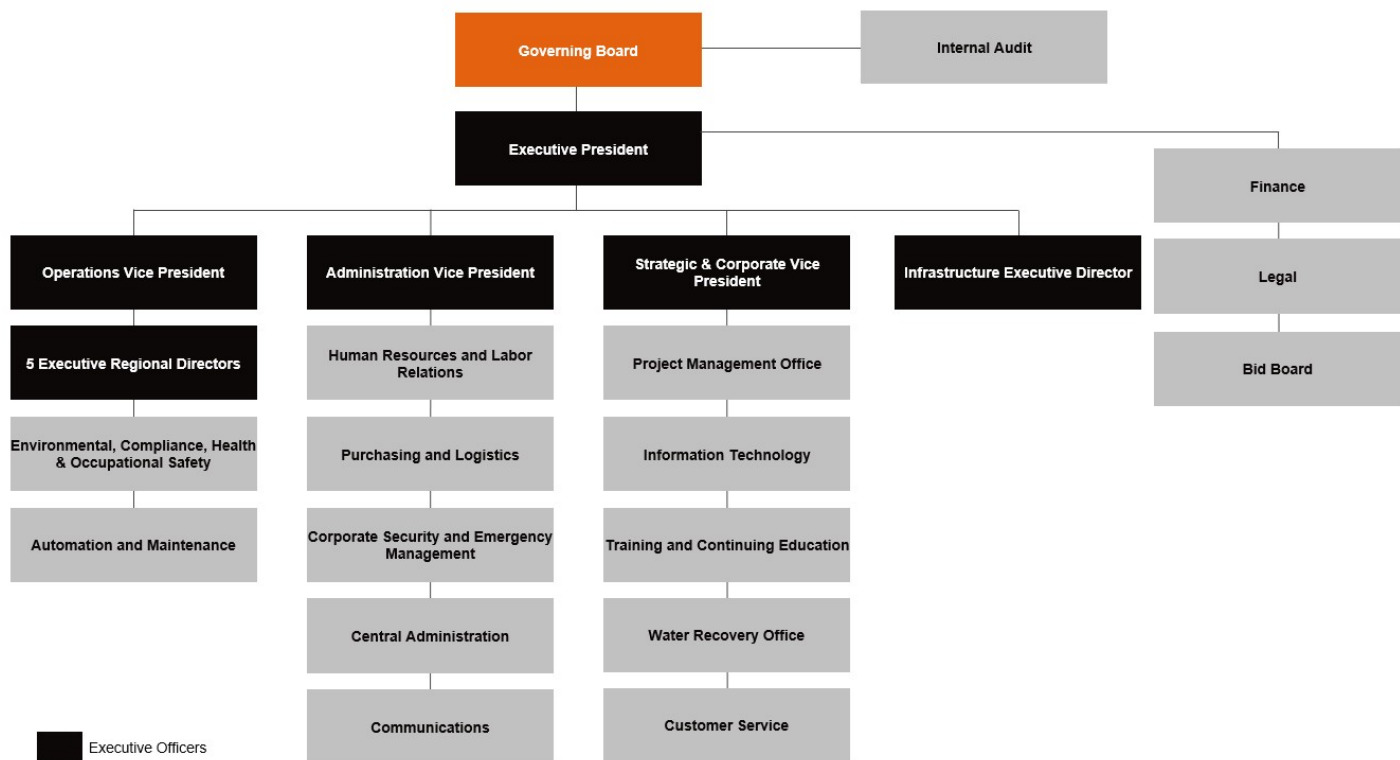


Figure ES-1 PRASA's current Legislated and Executive Management Structure

Key PRASA leadership includes its Executive President, Operations Vice President, Administration Vice President, Strategic and Corporate Planning Vice President, Interim Executive Director of Infrastructure, and the five Regional Executive Directors and Department Directors. PRASA's key EMT staff and current roles during FY2025 are Eng. Luis González Delgado (Executive President), Eng. Luis Ortiz Salgado (Operations Vice President), Moisés Lugo Molina (Strategic and Corporate Planning Vice President), Karim del Valle Gregory (Administration Vice President), Alexander López García (Executive Director of Finance), Eng. Gabriel Morales Rodríguez (Executive Director for Infrastructure), Vacant (Interim Executive Director Metro Region), Eng. José Rivera Ortiz (Interim Executive Director North Region), Eng. Bruce León Ng (Interim Executive Director South Region), Eng. Enrique Rosario Agosto (Interim Executive Director East Region) and Jorge Jimenez Rosario (Interim Executive Director West Region).

At the end of FY2025, PRASA had a total headcount of 4,289 employees, including 126 employees under the Pre-Retirement Program. Full-time employees (FTE) staff decreased by 4.5% from FY2024 to FY2025, which represents 204 FTE employees. In January 2022, PRASA completed a labor capacity and productivity assessment to determine optimal staffing levels. The study identified a need (including amendments to incorporate updates on Customer Service and Infrastructure Departments) for 5,000 employees. The organization is experiencing recruitment challenges across a wide range of positions that support water and wastewater treatment operations. These include licensed operators for water and wastewater treatment plants (WTPs and WWTPs), operator assistants, substitute operators, maintenance staff, operational service workers (*TSO by its Spanish acronym*), microbiologists, laboratory technicians, light equipment personnel, potable water technicians, WTP supervisors, maintenance supervisors, system managers, and purification mechanics. Additional roles facing recruitment difficulties are technical managers, maintenance managers and assistants, compliance specialists, maintenance brigades, pipefitters and their assistants, licensed electricians, Engineers in Training (EITs), secretaries, system

checkers, ROC supervisors, service coordinators, auxiliary directors of maintenance, electronic technicians (communications), heavy equipment operators, instrumentation technicians, instrumentation/telemetry managers, complaints coordinators, street and sidewalk supervisors, brigade supervisors, managerial services officers, clerks/administrative assistants, heavy vehicle supervisors, janitors, warehouse guards, large-scale flushing supervisors, mini-flushing supervisors, and network operations managers.

Condition of System Assets

Arcadis performed asset condition assessments of a selection of WTP and WWTP facilities corresponding to FY2025 and a sample of ancillary facilities. The facilities were inspected to assess the structural integrity and physical condition of the structures, the equipment's adequacy of operation and maintenance practices, and renewal and repair needs. Arcadis also evaluated the compliance performance results for the WTPs and WWTPs from January 1st, 2024, through December 31, 2024. The inspections for the dams were performed in April 2025. The WTPs, WWTPs, and ancillary facilities were inspected between March and June 2025. Additional information can be found in the FY2025 Asset Condition Assessment (ACA) Report. The facilities were rated as Good, Adequate, Poor, or Unacceptable.

In total, 180 facility inspections were performed out of the 3,957 facilities comprising the system, excluding 138 active Raw Water Intakes (RWIs) and 75 Raw Wastewater Pump Stations (RWPSs). Inspected facilities include eight dams, 48 WTPs, 24 WWTPs, 20 Wells, 30 Water Pump Stations (WPSs), 30 Water Storage Tanks (WSTs), and 20 Wastewater Pump Stations (WWPSs). Table ES-2 includes the summary of the facilities inspected by category.

Table ES-2 Assets Inspected by Category

Asset Category	Total PRASA Facilities ¹	Inspections Performed	
		Quantity	Percent
Regulated Dams	8	8	100
Water Treatment Plants	112	48	43
Wastewater Treatment Plants	50	24	48
Wells	244	20	8
Water Pump Stations	1,143	30	3
Water Storage Tanks	1,574	30	2
Wastewater Pump Stations	840	20	2
Total	3,971	180	5

¹ Data obtained from PRASA Geographical Information System (GIS) updated in June 2025. The total excludes 138 active RWIs and 75 RWPSs.

Similar to 2024, three dams (La Plata, Isabela Regulator, and Las Curías) received an overall rating of Poor, and five dams received an overall rating of Adequate. No dam received a combined rating of Good as a result of the 2025 inspections. Overall, all dams had increased ratings on at least one indicator due to ongoing improvements to address deficiencies noted in previous Arcadis and Puerto Rico Electric Power Authority (PREPA) inspections

and documentation of emergency preparedness. Notwithstanding, Isabela has an ongoing CIP construction project that should address some or all of the observations.

A total of 48 WTPs (43% of total WWTPs) currently in operation were inspected as part of this asset evaluation. Of the facilities inspected, three (6%) of the inspected WTPs, Antonio Santiago Vázquez WTP, Ciales Urbana (Cordillera) WTP, and Ponce Nueva WTP, were rated as Good, with an overall average of 2.5. For all the evaluated facilities, the overall average was 2.2. Only two facilities obtained an overall rating below 2.0 (4%). The remaining 45 (94%) facilities were rated as Adequate.

A total of 24 WWTPs (48% of total WWTPs) currently in operation were inspected as part of this asset evaluation. Of the facilities inspected, 16 (67%) WWTPs were rated Adequate, eight (33%) WWTPs were rated as Poor, and none were rated as Good or Unacceptable in the overall rating. For all evaluated facilities, the overall average was 1.8. However, two of the 16 WWTPs rated as Adequate in the overall rating are on the lower end, close to being rated as Poor. The WWTPs with the lowest overall score (below 2) include Guayama WWTP (South Region), Camuy-Hatillo WWTP (North Region), Barceloneta WWTP (North Region), Vega Alta WWTP (North Region), Yauco WWTP (South Region), San Sebastián (New) WWTP (West Region), Yabucoa WWTP (East Region), Corozal WWTP (North Region), Fajardo WWTP (East Region), Lares WWTP (North Region), Aguas Buenas WWTP (East Region), Caguas WWTP (East Region), Naranjito WWTP (North Region), and Ponce WWTP (South Region).

A total of 20 wells (equivalent to 8% of total wells) from the Operational Areas of Caguas, Fajardo, Arecibo, Utuado, Guaynabo, Ponce, Yauco, Mayagüez, and Aguadilla were inspected in FY2025. Out of the 20 wells inspected, one received a rating of Poor, 15 (75% of inspected wells) were rated Good, and the remainder were rated Adequate under the overall rating criteria.

A total of 30 above-ground WPSs (3% of total WPSs) were inspected. One (3% of inspected WPSs) facility was rated as Poor under this category, which is San Martín (Metro Region) from the San Juan Operational Area. The majority of the 18 inspected WPS facilities (60% of inspected WPS) were rated Good, and the remainder were rated Adequate under the overall criteria.

A total of 30 WSTs were inspected in FY2025. Emphasizing the facility-specific criterion, the WSTs rating distribution for this evaluation is as follows: 20 (67% of inspected WSTs) WSTs were rated as Adequate, ten (33% of inspected WSTs) were rated as Good, and none were rated as Poor or Unacceptable.

A total of 20 WWPSs were inspected in FY2025. Out of the 20 WWPSs inspected, nine (45%) received an Adequate overall rating, 11 (55%) received an overall rating of Good, and none were rated as Poor or Unacceptable. The areas of opportunity in each facility that obtained a low score to improve their condition include replacing old equipment with new equipment or modifying the process control strategies.

In FY2025, of the total 507.10 Million Gallons per Day (MGD) produced, approximately 335.59 MGD was NRW, a decrease in NRW over FY2024 (338.29 MGD). Of this amount of NRW, 319.38 MGD was due to water losses (both apparent and real), and 16.21 MGD was due to unbilled authorized consumption. Of the total water losses in FY2025, 57.27 MGD was due to apparent (commercial) losses, while 262.11 MGD was due to real (physical) losses. According to the FY2025 PRASA Fiscal Plan, PRASA's goal is to reduce water losses by 15.7 MGD annually by FY2032 by successfully implementing the Water Recovery Office (WRO) three main programs:

- Master Meters: This initiative includes the installation of water meters at critical facilities to measure water production accurately.
- Pressure Management: This initiative includes installing best practices across the transmission and distribution network.

- **Leaks Detection and Reduction:** This initiative will aid PRASA with identifying, prioritizing, and resolving major leaks detected in the system.

PRASA recognizes that reducing its NRW and water loss volume and, in turn, its water production will positively impact its operations and financial results (lower operation & maintenance (O&M) expenses and higher revenues, for example) and its sustainability practices. Therefore, reducing NRW is one of the top priorities and is one of the main objectives of the 2025 PRASA Fiscal Plan.

Because of the system's size, complexity, and current condition, it is reasonable to state that it will continue to require significant capital investments and continuous maintenance and repairs. Also, it is likely that as the system ages and new compliance regulations are implemented, an additional O&M budget may be necessary to address maintenance, repairs, and compliance requirements.

E.4. Operation & Maintenance Practices and Strategic Plan

Arcadis evaluated the adequacy of PRASA's O&M practices by assessing compliance with regulatory requirements, conducting interviews with PRASA personnel, and having field inspectors observe various WTP and WWTP during the FY2025 asset condition assessment.

Noncompliance with treatment parameters occurred at several facilities (WTPs and WWTPs) due to factors such as missing or outdated versions of O&M and equipment manuals, critical components being out of service, inadequately labeled or color-coded pipes, infrequent jar tests, and poor condition of security fences, access roads, and lighting. Additional issues included insufficient security and NPW systems, as well as challenges with ground upkeep.

Other challenges observed at various facilities included a lack of emergency generator units (EGUs) to maintain operations, the absence of potable water flow meters, inadequate overall appearance, insufficient safety measures, inconsistent process control of residual chlorine levels, and poor equipment maintenance.

PRASA should consider operational procedure improvements like standardization of processes and providing more tools and training to operators on process controls and actions to facilitate and improve plant operations and performance, and optimize O&M expenses. Also, including new process control equipment and system automation would benefit PRASA, given that operators continue to depend on manual operation for several processes. There is also room for improvement concerning prioritization, scheduling, and execution of corrective and preventive maintenance activities for optimizing and strengthening the system.

PRASA's FY2025 expenses preliminary projection for the water and wastewater system (combined) is approximately \$832.0M (as of June 2025), of which \$758.3M (91%) are directly related to the O&M of the System. The remainder of \$73.6M is related to commercial activities and provision of customer services, including but not limited to staffing and operation of customer service offices islandwide; meter reading; connection and disconnection services; invoice preparation, printing, and distribution; and customer service call centers, among others. PRASA estimates that during FY2025, approximately 73% of its System's O&M budget (\$553M) was allocated to the water system and the remaining 27% (\$204M) to the wastewater system.

In FY2025, chemical-related expenses were one of the largest operating expenditures at nearly \$78M. PRASA's efforts to reduce overall chemical costs include non-capital initiatives such as procurement strategies and better handling of chemical usage. However, rising costs associated with chemical production and the compliance requirements for water quality have offset efforts to generate savings.

Below is a brief description and status of additional programs and initiatives that PRASA continued to work on in FY2025 and will continue to be implemented in future FYs.

1. Integrated Maintenance Program (IMP) and Asset Management: The 2015 Consent Decree with USEPA and the 2006 Puerto Rico Department of Health (PRDOH) Drinking Water Agreement required that PRASA continues to develop a comprehensive IMP to include both corrective and planned (i.e., preventive, predictive, and proactive) maintenance activities to ensure the proper O&M of its treatment plants and other critical facilities.
2. PRASA's AM Program is central to achieving system reliability, cost efficiency, and regulatory compliance. Over the past year, PRASA has completed a comprehensive gap analysis of its asset management policies and practices, benchmarked against industry standards. This led to the development of a prioritized asset management Roadmap, with executive management and a dedicated Governance Board overseeing implementation and continuous improvement. Key initiatives include the adoption of condition-based capital planning, expansion of both vertical and linear asset management, integration with other operational programs, and the enhancement of Systems, Applications, and Products in Data Processing (SAP) systems for real-time asset monitoring. Ongoing training, process optimization, and cross-departmental collaboration underpin the program's evolution. Looking ahead, PRASA will continue to refine asset data, strengthen the integration of asset management with business processes, and invest in technology and workforce development to ensure the long-term sustainability and efficiency of its infrastructure.
3. NRW Reduction Program: Refer to the section above.
4. Energy Management Program: PRASA's energy cost is the second largest expense and depends on the fluctuations in electricity rates established by the Puerto Rico Energy Bureau (PREB) based on oil prices. Therefore, PRASA continues to implement initiatives to reduce energy consumption.
5. Master Plan Update: PRASA develops its Water and Wastewater Master Plan (Master Plan) every 10 years to align with the U.S. Census population information. The latest Master Plan was completed in 2024 for population projection adjustments and to create the roadmap for the next years for a safer, resilient, efficient, and financially viable System.

E.5. Capital Improvement Program and Regulatory Compliance

PRASA has developed a multi-year CIP to improve and maintain its System and restore damaged infrastructure to its condition before the 2017 Hurricanes, the 2020 Earthquakes, and 2022 Hurricane Fiona. The CIP's main objectives are to maintain (renew and replace), modernize (new technology), and simplify the System to achieve operational efficiency and sustainability, protect public health, safeguard environmental quality, enable continued economic development, and meet all regulatory requirements. Additionally, the CIP includes projects aimed at meeting mandatory compliance with the 2015 USEPA Consent Decree, as recently amended, and the 2006 PRDOH Drinking Water Settlement Agreement.

As of March 31, 2025, PRASA had 291 active projects in the CIP at different stages for a total investment of \$8,208M, as shown in Table ES-3.

Table ES-3 Active CIP Projects by Stage

Stage	Number of Projects	Estimated Investment (\$, M)	Percentage (%)
Pre-Planning	2	\$1,204	15
Planning	22	\$1,079	13
Design	64	\$2,356	29
Bidding	31	\$1,569	19
Construction	106	\$1,642	20
Completed	66	\$357	4
Total	291	\$8,208	100

As of March 31, 2025, major projects under construction include the meter replacement, the rehabilitation of the Enrique Ortega WTP, the dredging of Lake Carraízo, the rehabilitation of the Culebrinas WTP, the rehabilitation of the Guayama RWWTP, improvements to the Vieques WWTP, the rehabilitation of the Morovis Sur WTP, and the rehabilitation of the trunk sewers in Camuy, Barceloneta, and Patillas/Guayama.

In addition, the main projects currently in the design or bidding phases include the Buena Vista Community System drainage and sewer and water system improvements, the rehabilitation of the Guaynabo WTP, the rehabilitation of the Superaqueduct WTP, improvements to Mayagüez WWTPs, the rehabilitation of the Sergio Cuevas WTP, the rehabilitation of the Caguas Norte WTP, the Superaqueduct microgrid, improvements to the Carolina WWTP, the completion of the Valenciano WTP, and the rehabilitation of the Santa Isabel WWTP.

PRASA's CIP for FY2025 through FY2039, as included in the 2025 PRASA Fiscal Plan, amounts to \$11.7B. Table ES-4 shows annual capital expenditures by project category. Almost 80% of PRASA's CIP comprises Reconstruction & Recovery, Compliance (mandatory and non-mandatory), and Mitigation and Resilience projects of the total forecasted expenditures.

Reconstruction & Recovery, totaling 42% of the total CIP, is \$4,931.1M and is the largest category in terms of dollars throughout this CIP period. Mitigation and Resiliency projects are the second largest expense, with an annual average expenditure of \$219.9M and a total of \$3,298.6M. Renewal & Replacement is now the third largest expense, with an annual average expenditure of \$76.6M and \$1,148.2M over the 15 years.

The total of \$11.2B of identified projects under CIP, approved by the PRASA Governing Board on February 27, 2025, along with additional funds for R&R projects, includes \$572M for meter replacement and other infrastructure needs.

Table ES-4 CIP FY2025-FY2039 by Category (\$ in M)

Project Category	Fiscal Year Ending June 30							
	2025	2026	2027	2028	2029	2030	2031	2032
Reconstruction & Recovery	\$ 518.0	\$1,069.7	\$1,459.3	\$1,238.7	\$428.4	\$95.3	\$25.8	\$18.1
Mandatory Compliance	\$40.1	\$96.4	\$100.5	\$38.1	\$19.2	\$14.7	\$5.9	\$1.5
Mitigation & Resiliency	\$24.6	\$161.3	\$449.0	\$809.7	\$532.5	\$249.3	\$239.9	\$389.2
Generators & Meters	\$15.0	\$2.5	\$0.7	\$3.5	\$5.5	\$5.5	\$19.0	\$24.0

Project Category	Fiscal Year Ending June 30							
	2025	2026	2027	2028	2029	2030	2031	2032
Renewal & Replacement	\$60.8	\$71.9	\$40.0	\$40.0	\$58.0	\$69.5	\$80.0	\$80.0
Non-Mandatory Compliance	\$129.1	\$152.0	\$214.2	\$187.4	\$76.6	\$42.3	\$41.9	\$34.4
Quality	\$5.2	\$12.8	\$11.5	\$1.5	\$-	\$-	\$-	\$-
Fleet & IT	\$2.4	\$5.7	\$5.0	\$8.0	\$8.0	\$8.0	\$8.0	\$8.0
Others	\$24.7	\$74.3	\$137.9	\$149.0	\$107.0	\$68.7	\$40.9	\$23.9
Total	\$845.8	\$1,647.1	\$2,418.2	\$2,475.9	\$1,235.2	\$553.1	\$461.4	\$579.1

Project Category	Fiscal Year Ending June 30							
	2033	2034	2035	2036	2037	2038	2039	2025-2039
Reconstruction & Recovery	\$11.5	\$15.3	\$17.7	\$11.9	\$10.7	\$10.7	\$0.0	\$4,931.1
Mandatory Compliance	\$3.4	\$4.5	\$1.2	\$-	\$-	\$-	\$-	\$325.6
Mitigation & Resiliency	\$332.4	\$108.5	\$2.0	\$0.2	\$-	\$-	\$-	\$3,298.6
Generators & Meters	\$24.0	\$24.0	\$34.0	\$34.0	\$34.0	\$23.5	\$32.0	\$281.2
Renewal & Replacement	\$80.5	\$83.5	\$96.0	\$96.0	\$96.0	\$96.0	\$100.0	\$1,148.2
Non-Mandatory Compliance	\$31.8	\$4.9	\$-	\$-	\$-	\$-	\$-	\$914.6
Quality	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$31.0
Fleet & IT	\$8.0	\$8.0	\$8.0	\$8.0	\$8.0	\$8.0	\$-	\$101.1
Others	\$13.6	\$4.5	\$5.0	\$2.7	\$2.7	\$2.7	\$-	\$657.6
Total	\$505.4	\$253.5	\$164.0	\$152.8	\$151.4	\$140.9	\$132.0	\$11,715.8

One of the main objectives of the six-year CIP is to ensure regulatory compliance with the existing USEPA Consent Decree and the 2006 PRDOH Drinking Water Settlement Agreement. Both the Consent Decree with USEPA and the Drinking Water Settlement Agreement with PRDOH require PRASA to mandate that PRASA implement remedial plans, develop and execute CIP projects to align systems with regulatory requirements, and conduct evaluations on specific infrastructure and operational issues. Negotiations and modifications to the Consent Decree with USEPA, along with the Drinking Water Settlement Agreement with PRDOH, were finalized and approved by the Court in October 2024; PRASA, in collaboration with USEPA and the U.S. Department of Justice (USDOJ). PRASA began enforcement of the modified Consent Decree in 2024, and Biannual Progress Report (BPR) Numbers 18,19, and 20, reference herein, summarize the initiatives and programs implementation efforts carried out from September 2024 to September 2025. PRASA continues to work on the requirements of the Consent Decree with USEPA and the Settlement Agreement with PRDOH.

Furthermore, in accordance with the 2006 Drinking Water Settlement Agreement, PRASA submits a Quarterly Settlement Agreement Report (QSAR) every quarter, including Remedial and Preventive Measures, Joint Motions, and Certifications of completion of measures and action plans to prevent future violations.

While PRASA has begun to identify the potential impact of new regulations, the full impact of future regulations and other regulatory requirements on PRASA's System is unknown. In some cases, future regulations and additional regulatory requirements are expected to require minor process changes, and in other cases, major capital improvements, such as the construction of new treatment processes and intensive repair programs.

PRASA has taken the initial steps to prepare for the impact of future regulations, such as the Lead and Copper Rule Improvements (LCRI) and the Per- and Polyfluoroalkyl Substances (PFAS) groups, that may impact the System and compliance requirements. Also, PRASA has experienced additional compliance challenges regarding the National Pollutant Discharge Elimination System (NPDES) permit limit requirements for WWTPs and Sludge Treatment System (STS) discharges at the WTPs. Over the past years, the NPDES permit limits became more stringent for certain parameters such as total nitrogen, total phosphorus, and residual chlorine, among others.

However, as the impact of future regulations becomes clearer and NPDES permit limits become more stringent, modifications to the CIP may be necessary to address the resulting needs adequately. Consequently, the reprioritization of CIP requirements and implementation schedules will depend on PRASA's financial capacity.

E.6. Insurance Program

Arcadis engaged MARSH Puerto Rico, Inc. (MARSH) to review PRASA's current insurance coverage and determine its adequacy, considering the type and value of PRASA's fixed assets. Also addressed in the Section 7 subsections are some outstanding recommendations for PRASA's insurance coverage from previous evaluations. The data, opinions, and comments included in this section have been based solely on PRASA's copies of policies for FY2025 provided by PRASA for this purpose unless stated otherwise. Several key recommendations for PRASA's insurance program are provided below.

1. The comprehensive review conducted by MARSH highlights the critical need for PRASA to regularly assess its insurance program to ensure coverage remains adequate and aligned with the changing value and nature of its assets. MARSH's detailed evaluation covered multiple policies and provided targeted recommendations across PRASA's insurance portfolio, identifying several key areas essential for effective risk management and financial protection.
2. Property insurance requires particular focus due to PRASA's substantial asset base, relatively high premiums, significant deductibles, and stop loss limits that are low compared to the total asset values. PRASA's Commercial Property Program covers nearly \$12.9B in assets, but its effectiveness is limited by a very high deductible of \$100M, which places considerable financial responsibility on PRASA before insurance coverage applies. In the event of a major loss, the maximum insurance recovery may cover only a small fraction of the total insured value, underscoring the urgent need to reassess coverage limits relative to PRASA's asset exposure.
3. A critical concern is the exclusion of Excavations coverage, which is especially significant given that nearly 49% of PRASA's total insurable value (TIV) is tied to buried infrastructure such as underground pipelines. Excavation costs often represent a substantial portion of the total construction cost for these assets, which are highly vulnerable to catastrophic events like earthquakes. Excluding excavation coverage could prevent PRASA from recovering sufficient funds to repair or replace damaged infrastructure. If insurers maintain these exclusions, it is essential to adjust insurable limits downward accordingly to avoid paying premiums for coverage that cannot be claimed.
4. To address these challenges, PRASA must reconcile and update its asset valuations, conduct a thorough claims analysis to evaluate loss experience in relation to the high deductible, and consider removing lower-risk properties from coverage to optimize insurance costs. A current asset appraisal is imperative to reflect the value of PRASA's fixed assets accurately. Additionally, conducting a comprehensive Probable Maximum Loss (PML) study using updated asset values is crucial to quantify potential losses from catastrophic events such as earthquakes and floods, and to determine whether existing insurance limits provide sufficient protection.

5. PRASA should prioritize these assessments and policy adjustments to ensure its insurance program offers adequate financial protection and aligns with best risk management practices, reflecting PRASA's evolving risk profile and operational needs.
6. Regarding cyber liability insurance, PRASA's current policy offers a basic level of protection but includes several exclusions and limited terms that may leave the Authority vulnerable to significant cyber and physical risks. MARSH recommends renegotiating and enhancing the policy to better reflect industry best practices and PRASA's unique exposure. This includes adding critical coverages for breach costs, terrorism-related cyber-attacks, and emerging threats such as active assailant incidents. Implementing these improvements will strengthen PRASA's resilience against cyber incidents and physical attacks, providing more robust financial protection and supporting operational continuity in an increasingly complex risk environment.

E.7. System Assets and Financial Analysis

Arcadis evaluated PRASA's financial forecast as included in the 2025 PRASA Fiscal Plan and as certified by the Oversight Board on May 30, 2025, and evaluated the appropriateness of rates and charges. Arcadis also reviewed the FY2026 Annual Budget, certified and approved on June 27, 2025, by the FOMB. This section summarizes Arcadis's review and provides an assessment of PRASA's financial condition as it relates to PRASA's financial preliminary results for FY2025 and the reasonableness of PRASA's assumptions in the preparation of the five-year financial projections from FY2026-FY2030 (the forecast period). The sufficiency of the revenues is necessary to support the projected operations and capital costs.

In FY2023, PRASA implemented a new rate structure and charges, simplifying its rate to only two charges – a base charge and a consumption charge. For FY2024, a rate adjustment of 2.0% was implemented, and for FY2025, starting on July 1st, 2024, the minimum required annual rate adjustment of 2.0% was also implemented. The projected accumulated benefit of the rate increases is \$344.5M through FY2030.

Operating Revenues and Expenses

PRASA's annual Operating Revenue projections for FY2025 through FY2030, including the 2025 PRASA Fiscal Plan revenue-enhancing initiatives, presented on a cash basis per the MAT, are summarized in Table ES-5.

Table ES-5 PRASA Operating Revenues (\$ in M)

Fiscal Year	Operating Revenues
FY2025 Projection, based on Preliminary Results	\$1,177.4
FY2026 Annual Budget ¹	\$1,213.7
FY2027 Projected	\$1,238.8
FY2028 Projected	\$1,270.9
FY2029 Projected	\$1,309.8
FY2030 Projected	\$1,355.2

¹ As certified by the FOMB on June 27, 2025.

PRASA does not project any additional sources of revenue. Therefore, PRASA's Authority Revenues are equivalent to the Operating Revenues for the forecast period from FY2025 through FY2030.

PRASA's Operating (Current) Expenses are presented on an accrual basis as required by the MAT. PRASA's preliminary Operational Expenses for FY2025 and operating expense projections for FY2026 to FY2030, net of (i) capitalized expenses, (ii) the 2025 PRASA Fiscal Plan expense reduction initiatives, and (iii) the 2017/2022 Hurricanes impact recoveries, are presented in Table ES-6.

In its FY2025 projections, PRASA includes a net deposit of \$7.2M from FEMA funds to the credit of the Current Expense Fund for the reimbursement of PRASA's operating expenses concerning the impacts of declared disasters over the past eight years. In FY2026, PRASA has budgeted a net deposit of \$5.0M, mostly for reimbursement expected to cover expenses incurred to address the impacts of recent hurricanes or tropical storms. No additional deposits are included in the periods from FY2027 through FY2030.

Table ES-6 PRASA Operating Expenses (\$ in M)

Fiscal Year	Operating Expenses Without FEMA Reimbursements	Operating Expenses net of FEMA Reimbursements
FY2025 Preliminary	\$877.4	\$870.2
FY2026 Annual Budget	\$909.8	\$904.9
FY2027 Projected	-	\$933.7
FY2028 Projected	-	\$938.4
FY2029 Projected	-	\$956.7
FY2030 Projected	-	\$965.5

Note: PRASA is not forecasting any FEMA expense reimbursements beyond 2026 related to impacts from hurricanes or other natural disasters.

Debt Service

Estimated debt service amounts include projected payments on the 2020, 2021, and 2022 Bonds, other existing debt, and payments for maintaining required debt service reserves, as applicable. Other System Indebtedness in parity with Senior bonds includes the SRF and USDA RD Loans, which started in July 2019 after the federal debt modification. Renegotiated terms of PRASA's SRF and RD debt obligations, reclassified as Senior Level Debt per the Seventh Supplemental Agreement of Trust dated July 26, 2019, are summarized in Table ES-7.

Table ES-7 Renegotiated Terms for SRF and RD Debt

Debt Category	SRF	RD
Outstanding Debt Balances, including future loans of \$26M for SRF and accrued interests for RD	\$595,777,017.21	\$402,931,464.55
Term	30 years	40 years
Rate	0% until year 10 and 1.0% after that	2.0%

Debt Category	SRF	RD
Payment Terms	Biannual principal-only payment of \$5M in Years 1-10; biannual principal and interest payments of \$13.7M in Years 11-30	Biannual principal and interest payments of \$5M in Years 1-10, increasing to \$8.5M in Years 11-40
Maturity Date	07/01/2049	07/01/2059
Debt Level	Senior	Senior

A summary of PRASA's debt service obligations and projections for FY2025 and the forecast period are presented in Tables ES-8 and ES-9, respectively. FY2025 debt service obligations totaled \$245.7M of Senior lien obligations.

Table ES-8 FY2025 Debt Service Obligations and Preliminary Results (\$ in Thousands)

Debt Category	FY2024 Preliminary Results
Senior Debt	\$245,745
Senior Subordinated Debt	-
Subordinated Debt	-
Total	\$245,745

Table ES-9 FY2026-FY2030 Debt Service Obligations (\$ in Thousands)

Debt Category ¹	FY2026 Projection	FY2027 Projection	FY2028 Projection	FY2029 Projection	FY2030 Projection
Senior Debt	\$255,653	\$260,973	\$267,805	\$273,794	\$302,259
Senior Subordinated Debt	-	-	-	-	-
Subordinated Debt	-	-	-	-	-
Total Debt	\$255,653	\$260,973	\$267,805	\$273,794	\$302,259

The Debt Service Coverage (DSC) results presented in Table ES-10 for the forecast period have been calculated using the Rate Covenant requirements per the MAT, as amended, and debt service obligations.

Table ES-10 FY2025-FY2030 Debt Service Coverage

Debt Service Level	DSC Requirement	FY2025 Preliminary DSC	FY2026 DSC	FY2027 DSC	FY2028 DSC	FY2029 DSC	FY2030 DSC
Senior Debt ¹	2.50	4.79	4.75	4.75	4.75	4.78	4.48
Senior Subordinated Debt ¹	2.00	4.79	4.75	4.75	4.75	4.78	4.48
Subordinated Debt ¹	1.50	4.79	4.75	4.75	4.75	4.78	4.48
All Obligations ²	1.00	1.00	1.00	1.00	1.00	1.00	1.00

¹ DSC calculated for Operating Revenues.² DSC calculated for Authority Revenues.

Reserves and Other Deposits Requirements

Per the Sixth Supplemental Agreement to the MAT, PRASA is cash funding the reserve and deposited \$8.5M in the Operating Reserve Fund during FY2025. For FY2026, PRASA is not projecting any deposits to the Operating Reserve Fund. In future years, PRASA is projecting to deposit the required funds in the Operating Reserve Fund to align the balance with the increases in Operating Expenses, seeking always to maintain three months of current expenses in deposit.

PRASA projected deposits of \$52.8M from Operating Revenues into the Capital Improvement Fund during FY2025 to finance a portion of its CIP. This deposit is net from the FEMA/American Rescue Plan Act (ARPA) proceeds and other restricted funds and from the 2025 PRASA Fiscal Plan New Federal Funds initiative benefit, estimated at \$157.3M (excluding the costs related to such funds as presented in the debt service requirement) for FY2025.

In its FY2026 Annual Budget, PRASA projects to deposit to the Capital Improvement Fund \$52.7M from Operating Revenues, net from FEMA/ARPA proceeds and other restricted funds, and net from the 2025 PRASA Fiscal Plan New Federal Funds initiative estimated at \$264.0M (excluding the costs related to such funds as they are presented in the debt service requirement).

From FY2027 through FY2030, PRASA projects to make deposits in the Capital Improvement Fund in the amounts of \$43.8M, \$64.3M, \$79.0M, and \$87.1M from Operating Revenues, net from the New Federal Funds initiative estimated at \$323.6M, \$241.2M, \$115.1M, and \$61.0M, respectively (excluding the costs related to such funds as they are already included as a part of the debt service).

The FY2025 projections include a \$17.5M transfer from the Rate Stabilization Account, and the FY2026 Annual Budget includes a transfer from the Rate Stabilization Account of \$30M to cover payroll and maintenance costs and the forecasted increase in electricity in FY2026. Further transfers of \$18.0M in FY2027 and \$6.0M in FY2028 are planned from the Rate Stabilization Account. No further transfers are planned for the remainder of the forecast period.

Conclusions

Over the past several years, the Government of Puerto Rico has faced significant economic and demographic challenges that have adversely impacted PRASA. In addition to the economic downturn that has been experienced in Puerto Rico, PRASA is also facing several major challenges, including service affordability, aging infrastructure, high volume of NRW, regulatory mandates, system vulnerabilities to climate change and natural disasters, declining population and water consumption, workforce challenges, and increasing capital and R&R needs. However, PRASA's financial circumstances have improved and indicate a positive outlook due to the implementation of various initiatives, including recent debt refunding resulting in debt service savings without increasing the maturities of the refunded debt, expected influx of federal funds, gradual increases to rates, and improved collection of past due amounts and government accounts.

In January 2022, PRASA completed a labor capacity and productivity assessment to determine optimal staffing levels. At the end of FY2025, PRASA had a total headcount of 4,289 employees. Ideally, PRASA will need to hire 411 additional employees to reach a headcount of 4,700 FTEs by FY2029. As of November 20, 2025, there were 1,600 vacant positions, not including interim roles. Approximately 126 employees continue to benefit from the Voluntary Pre-Retirement Program (Act 211-2015). PRASA continues to face challenges in filling critical operational staff positions needed islandwide, including, but not limited to, licensed operators, operator assistants, substitute operators, maintenance staff, TSO, microbiologists, laboratory technicians, light equipment personnel, potable water technicians, supervisors, maintenance supervisors, system managers, and purification mechanics. Additionally, technical service operators, electromechanics, sludge dewatering operators, sanitary sewer technicians, housekeeping staff, managers, supervisors, administrative assistants, preventive maintenance coordinators, and support staff such as clerks, janitors, and warehouse guards remain difficult to fill. The shortage of operations personnel has necessitated the Operations Department to rely on overtime hours and engage private contractors to manage facilities, impacting payroll metrics.

Arcadis performed asset condition assessments of a selection of WTP and WWTP facilities corresponding to FY2025 and a sample of ancillary facilities. Arcadis visited 180 facilities throughout PRASA's five Regions between March and June of 2025 to conduct a condition assessment of PRASA's facilities. Of the inspected facilities, 72 (40%) were treatment (WTP and WWTP) facilities. The assessment included a visual inspection of the physical condition of the equipment and the facilities, process controls, and an evaluation of the regulatory compliance performance, O&M practices, staffing, and training.

PRASA's eight regulated dams are rated as Adequate to Poor conditions. Ratings increased for all dams because of recently provided documentation and ongoing capital improvement projects. Improvements have been completed at Cidra Dam, and a major rehabilitation project of the dam and liner system at Isabela Regulator Dam was underway at the time of the 2025 inspection. According to PRASA, a major rehabilitation is scheduled to begin soon at Toa Vaca Dam. However, many minor issues from past inspections were observed again during the FY2025 inspections.

Overall, the WTPs inspected are mostly in Adequate condition. To the extent that the physical structures and operational and process controls are maintained or improved, they are expected to continue to serve their intended purpose of providing a potable water supply in compliance with applicable regulations. The WWTPs generally range from Adequate to Poor conditions in the overall rating. Out of the 24 facilities inspected, eight facilities (33%) received a Poor overall rating, and 16 facilities (67%) received an Adequate rating. Regarding ancillary facilities, the facility criteria rating of wells, WPS, WST, and WWPS improved, elevating most facilities to the Good range.

PRASA has included in its CIP program several projects to address wells, WPSs, WSTs, and WWPSs, and it is expected to see improvements in the following years.

Noncompliance with treatment parameters occurred at several facilities (WTPs and WWTPs) due to factors such as missing or outdated versions of O&M and equipment manuals, critical components being out of service, inadequately labeled or color-coded pipes, infrequent jar tests, and poor condition of security fences, access roads, and lighting. Additional issues included insufficient security and NPW systems, as well as challenges with ground upkeep.

Other challenges observed at various facilities included a lack of EGUs to maintain operations, the absence of potable water flow meters, inadequate overall appearance, insufficient safety measures, inconsistent process control of residual chlorine levels, and poor equipment maintenance.

In FY2025, the Customer Service Department focused on four strategic pillars to optimize revenue: enhancing billing accuracy through the pilot and initial deployment of the AMI project, including the placement of the first meter purchase order despite a procurement appeal; strengthening collections by increasing efforts to recover overdue accounts via contracted agencies; improving client experience through upgrades to customer applications, expanded call center services, and the piloting of a customer service chatbot; and driving organizational transformation with ongoing departmental reorganization and continued AMI project expansion, including the completion of procurement for meter installation.

PRASA has engaged the services of four Program Management Consultants (PMCs) to support its Infrastructure Department in the planning, design, permitting, procurement, construction, and management of the CIP projects in each of the five Regions. As of March 31, 2025, PRASA had 291 active projects in the CIP at different stages for a total investment of \$8,208M.

PRASA's insurance program, including risk management, policies, and the OCIP, was reviewed to determine if it is appropriate for the system. Several key recommendations for PRASA's insurance program were made and are recommended to be implemented promptly.

PRASA's forecast reflects the financial projections included in the 2025 PRASA Fiscal Plan certified by the Oversight Board on May 30, 2025. With PRASA's projected additional revenues, cost savings, new federal funds, and proposed rate increases, the forecast reflects a total surplus of \$2.2M from FY2025 through FY2030.

Operating Revenues are projected to be sufficient to meet Senior Lien debt service payments and meet Rate Covenant DSC requirements for Senior Lien Debt. Authority Revenues are projected to be sufficient every year of the forecast period to meet All Obligations per the MAT. Therefore, PRASA is projecting to meet its Rate Covenant requirement of 1.0x coverage of its current obligations throughout the forecast period. In meeting these requirements, PRASA must consider its rates' overall sustainability and affordability, given the overall economic situation affecting Puerto Rico and recent trends affecting customer consumption profiles.

1 Introduction

1.1 Introduction

The Puerto Rico Aqueduct and Sewer Authority (PRASA) is a public utility that owns and operates water and wastewater infrastructure in Puerto Rico. PRASA serves approximately 3.2 million (M) residents and millions of visitors annually. PRASA is the only utility in Puerto Rico providing water to approximately 97% and wastewater services to approximately 59% of Puerto Rico's population. The remaining four percent of residents acquire water from private wells, and 41% treat the wastewater using septic tanks or other private disposal systems. The effective operation of this vital public service is essential to the health and economic prosperity of Puerto Rico and its residents.

PRASA provides water and wastewater services throughout the island for approximately 3,535 square miles. Because Puerto Rico is an island with varied topography, isolated demographic distributions, and a diverse mix of users, PRASA has a somewhat fragmented and localized system of water sources, treatment systems, and distribution/collection systems. As a result, PRASA has more treatment facilities than most utilities that serve a similar number of customers and greater diversity in assets in terms of size, treatment technologies, and age when compared to systems in the United States (U.S.) and Canada, which tend to have more centralized systems with larger regional facilities. The size and diversity of assets add complexity to the management of the water and wastewater systems (collectively, the "System") and contribute to higher operation and maintenance (O&M) costs compared to other utilities serving similar populations.

Based on the water and wastewater infrastructure geodatabase data provided by PRASA as of June 2025, PRASA owns and operates:

- Eight dams
- 112 Water Treatment Plants (WTPs)
- 138 active Raw Water Intakes (RWIs)
- 50 Wastewater Treatment Plants (WWTPs)
- 244 Wells
- 1,143 Water Pump Stations (WPSs), of which 75 are Raw Water Pump Stations (RWPSs)
- 1,574 Water Storage Tanks (WSTs)
- 840 Wastewater Pump Stations (WWPSs)
- More than 21,500 miles of water and wastewater pipelines islandwide.

1.2 Consulting Engineer Report's Purpose and Requirement

PRASA has retained Arcadis Caribe, PSC (Arcadis) as its Consulting Engineer to assist in the preparation of a Consulting Engineer's Report (CER) to satisfy the reporting requirements specified in Section 7.07 of the Master Agreement of Trust (MAT), as amended, by and between PRASA and Banco Popular de Puerto Rico as Trustee, and certain requirements between PRASA and the Government of Puerto Rico.

As required by Section 7.07 of the MAT, unless the Senior Bonds have been rated investment grade by at least two Rating Agencies for 24 consecutive months, the Consulting Engineer shall prepare a CER to document the following:

- The recommendations of the Consulting Engineer as to the proper maintenance, repairs, and operation of the System during the ensuing Fiscal Year (FY), and an estimate of the amounts of money necessary for such purposes.
- The recommendations of the Consulting Engineer as to the amount that should be deposited each month during the ensuing FY to the credit of the Capital Improvement Fund.
- The recommendations of the Consulting Engineer as to the improvements that should be made during the ensuing FY and an estimate of the amounts of money necessary for such purposes, showing separately (i) the amount to be expended during such FY from moneys to the credit of the Capital Improvement Fund and the Surplus Fund and (ii) the amount to be expended during such FY from the proceeds of Bonds and other Indebtedness.
- The recommendations of other Consultants retained by or relied upon by the Consulting Engineer as to the insurance to be carried under the provisions of Section 7.08 of the MAT.
- A statement by the Consulting Engineer of the cost of all additions made to the System and of the cost (if the cost cannot be accurately determined, the estimated cost) of all retirements of property made in such FY.
- A report of the Consulting Engineer (which may retain other Consultants as necessary) as to the adequacy of existing rates and charges for purposes of the Rate Covenant contained in Section 7.01 hereof for the current FY to date, and recommendations as to any necessary or advisable revisions of rates and charges, and such other advice and recommendations as they may deem desirable.
- The findings of the Consulting Engineer, whether the properties of the System have been maintained in good repair and sound operating condition, and their estimate of the amount, if any, required to be expended to place such properties in such condition, and the details of such expenditures and the approximate time required therefore.

Arcadis prepared this CER (2025 CER or the "Report"), containing the Section as included below.

1.3 Approach and Methodology

This section presents the approach and methodology used in the evaluation to achieve the CER's goals and the report's organization.

- Section 2 PRASA's Fiscal Situation: This section overviews PRASA's fiscal situation during FY2025.
- Section 3 PRASA's Organization and Management: This section summarizes PRASA's organization and management, including:
 - The Executive Management Team (EMT)
 - The Board of Directors
 - Staffing Profile
 - Labor Relations
 - Training
- Section 4 Condition of the System Assets: This section includes a summary of the condition and operational state of the water and wastewater facilities inspection during FY2025.

- Section 5 O&M Practices and Strategic Plan: A summary of the O&M program, O&M costs (benchmarked against other industry utilities), and a detailed summary of PRASA's Strategic Plan and Operational Initiatives are included in this section.
- Section 6 Capital Improvement Program (CIP) and Regulatory Compliance. This section provides an overview of the CIP spanning 15 years from FY2025 to FY2039, including PRASA's 15-year forecast with preliminary results for FY2025 and projections for FY2026 through FY2039, as presented in the 2025 PRASA Fiscal Plan. It also includes an update on the regulatory compliance of the System.
- Section 7 Insurance Program: This section summarizes PRASA's current insurance coverage per the policies provided, and recommendations for adequacy were evaluated.
- Section 8 System Assets and Financial Analysis: This section includes the estimated costs for additions to the System and assets that were retired in FY2025, the financial forecast, and the rates and charges appropriateness evaluation.
- Section 9 Conclusions and Recommendations: This section includes an overview of the assumptions, significant conclusions, and recommendations.

1.4 Acronyms

A listing of acronyms or abbreviations of terms used in this report is included in the Table of Contents.

2 PRASA's Fiscal Situation

2.1 Overview

Over the past several years, the Government of Puerto Rico has faced significant economic and demographic challenges that have adversely impacted PRASA. In addition to the economic downturn that has been experienced in Puerto Rico, like many other municipal water and wastewater utilities around the world, PRASA continues to face several major challenges, including service affordability, aging infrastructure, high volume of non-revenue water (NRW), regulatory mandates, system vulnerabilities to climate change and natural disasters, declining population and water consumption, workforce challenges, and increasing capital and renewal and replacement (R&R) needs. In addition, Puerto Rico has suffered economic, infrastructural, and operational impacts because of Hurricanes Irma and María in 2017, a series of earthquakes in 2019 and 2020, the Coronavirus Disease 2019 (COVID-19) pandemic, and Hurricane Fiona in 2022. However, PRASA's financial circumstances continue to improve due to the ongoing implementation of financial and operational initiatives, including debt restructuring, revenue-enhancing measures, federal funding from disaster recovery, and access to Drinking Water and Clean State Revolving Fund (SRF) programs to the U.S. Department of Agriculture Rural Development (USDA RD) programs funds (both SRF and USDA RD are referred herein as the "Federal Lenders").

PRASA is committed to building on its past accomplishments, particularly by improving the System conditions and operational efficiency, and the timely, on-budget implementation of its CIP. These areas are expected to be addressed using the projected inflow of federal funds (with appropriate contributions from PRASA's internal funds), which should support PRASA's goal to build and maintain a more robust infrastructure and more efficient and resilient water and wastewater systems.

2.2 Puerto Rico Oversight, Management, and Economic Stability Act, and PRASA's Fiscal Plan

On June 30, 2016, the U.S. Congress enacted the Puerto Rico Oversight, Management, and Economic Stability Act, PROMESA. PROMESA created the Financial Oversight and Management Board (FOMB) for Puerto Rico to provide financial and other oversight of the Government and its agencies, including PRASA. The FOMB oversees the development of budgets and fiscal plans for Puerto Rico's Central Government and certain covered entities, including PRASA. Also, it may issue subpoenas, certify voluntary agreements between creditors and debtors, seek judicial enforcement of its authority, impose penalties, and enforce territorial laws prohibiting public sector employees from participating in strikes or lockouts. The Oversight Board's responsibilities include:

- Certifying fiscal plans for entities designated as "covered entities" by the Board, as well as the Government's Fiscal Plan
- Approving annual budgets
- Enforcing budgets and ordering any necessary spending reductions
- Reviewing laws, contracts, rules, and regulations for compliance with the fiscal plan

Under the PROMESA's requirement for the submission of a Fiscal Plan, on May 30, 2025, the FOMB Certified PRASA's Fiscal Plan (2025 PRASA Fiscal Plan). The 2025 PRASA Fiscal Plan promotes PRASA's mission of

providing high-quality drinking water and sanitary sewer service at the lowest possible cost. The 2025 PRASA Fiscal Plan reflects the financial and operational goals of PRASA in compliance with the requirements mandated by PROMESA to ensure fiscal responsibility while prioritizing the delivery of reliable, safe, and affordable water and wastewater services. Provided that the 2025 PRASA Fiscal Plan is successfully executed and the financial and operational sustainability objectives are achieved, PRASA should be well-positioned to maintain access to credit markets at reasonable rates and, as needed, to meet borrowing needs, enabling it to continue providing essential customer services.

Based on the 2025 PRASA Fiscal Plan, PRASA has identified certain measures to ensure continued progress in PRASA's long-term fiscal condition and to ensure the Authority can continue to provide safe, reliable, and affordable water and wastewater services. Four broad categories of measures are incorporated in the Post-Measures Financial Results:

- Revenue Enhancement Measures, which target adequate cost recovery levels executed through future rate adjustments and improvements in billing accuracy.
- Expense Reduction Measures by reduction of PRASA's overall expenditures through operational optimization, mostly by reducing physical water losses and electricity costs.
- New Financing for CIP by securing additional federal funding to finance the CIP.
- Enabling Measures, which will enact measures to facilitate the successful implementation of the 2025 PRASA Fiscal Plan key measures and to provide for operational sustainability throughout the organization.

For this Report, Arcadis used the 2025 PRASA Fiscal Plan as the official fiscal plan, which provides for its CIP to cover 15 years from FY2025 to FY2039 (the CIP) as well as PRASA's 15-year forecast covering preliminary results for FY2025 and projections for FY2026 through FY2039 (the Forecast). In addition, PRASA's CIP has been restructured to optimize the use of federal funding, achieve a more resilient and reliable water and wastewater system, improve water quality, ensure consistency with PRASA's long-term goals, and ultimately achieve financial sustainability.

The 2025 PRASA Fiscal Plan is discussed in more detail in Section 8.

2.3 Federal Debt Modification

Typically, PRASA receives federal funds through loans from the Drinking Water and Clean Water SRF programs and bonds or loans under the USDA RD program (both "Federal Lenders"). On July 26, 2019, PRASA modified its debt obligations under the SRF programs and USDA RD loans. The benefits of this federal debt modification are:

- Reduction of interest rates and extension of the amortization period, resulting in a debt service relief of approximately \$370M over the following 10 years.
- Termination of existing Commonwealth guarantees over the Federal Debt, reducing overall Government contingent liabilities by approximately \$1 billion (B).
- Access to new loans (classified as senior indebtedness) from the SRF and USDA RD programs.

2.4 Senior Debt Refunding (2020 and 2021/2022 Refunding)

PRASA's debt optimization strategies contributed to approximately \$1.3B in debt relief. To achieve this, PRASA modified debt terms with Federal Lenders, refunded a significant portion of the outstanding 2008 Senior Bonds and

all 2008 Guarantee Bonds in 2020 and 2021, refunded all outstanding 2012 Series A and B Senior Bonds, and settled an outstanding loan with GDB/DRA at a discount.

The issuance of the 2020 Senior Bonds resulted in \$350M in total debt service savings by refinancing most of the 2008 Bonds. Senior bondholders consented to a MAT amendment, which modified the existing revenue pledge from a gross revenue pledge to a net revenue pledge, subject to Federal Lenders' consent. Additionally, the issuance of the 2020 Senior Bonds, which refunded all of the 2008 Revenue Refunding Bonds guaranteed by the Commonwealth that PRASA no longer has an outstanding balance from debts to be paid, which are the Commonwealth Guaranteed Indebtedness (CGI) and Commonwealth Supported Obligations (CSO).

The \$1,806M in 2012 Senior Bonds were refinanced through the issuance of the 2021/2022 Bonds, resulting in a total debt service reduction of \$570M compared to the original 2012 Senior Bonds. A total principal amount of \$1,089.8M was issued in August 2021, with the remaining \$565.2M issued in June 2022. The bondholders also consented to the MAT amendments referred to above.

Following the issuance of the 2020 Senior Bonds and the 2021/2022 Bond, PRASA proposed certain amendments to change the current order of payments, among other things. These changes would result in revenues being applied for the payment of current operating expenses ahead of deposits for debt service on outstanding Senior Debt and Other System Indebtedness. The amendments will become effective upon receiving written consent from the Federal Lenders; however, as of the submission date of the 2025 PRASA Fiscal Plan, PRASA has not formally requested this consent.

2.5 Rate Adjustments

As part of the revenue enhancement measures, a new simplified rate structure was implemented, incorporating a minimal annual adjustment of 2% with up to a maximum of 5% per year, subject to actual projected needs, with a cumulative rate increase cap of 30% starting from FY2024.

Future rate adjustments will be based on PRASA's fiscal needs to finance operations, capital requirements, and compliance with the reserve levels required by MAT. PRASA has forecasted sufficient funding to meet all current obligations and to support continuous capital deployment as projected in the CIP work schedule, while maintaining appropriate levels of cash reserves. However, additional assessments may be considered if certain factors impact PRASA's financial stability, including but not limited to events of federal fund claw-backs or significant delays in the implementation of the Advance Metering Infrastructure (AMI) project. After the implementation of all initiatives, annual rate adjustments may be reevaluated based on updated financial projections.

2.6 Energy Management

Electricity costs represent PRASA's second-largest expense, and unpredictable electricity rates can significantly impact the operational budget. The cost of electricity purchased from Puerto Rico Electric Power Authority (PREPA)/LUMA is based on actual rates approved by the Puerto Rico Energy Bureau (PREB) until March 31, 2025, and projected rates for the last quarter of the FY. Future rates will depend on the base charge, market pricing for fuel and renewal power, contributions in lieu of taxes and subsidies, pension charges, and debt service charges.

In response to rising energy prices, PRASA has identified measures to improve efficiency and implement alternate sources of energy. Energy supply projects are being developed through Power Purchase Agreements (PPAs) to reduce electricity costs. PPA mechanisms that use photovoltaic energy are currently in place at ten facilities,

guaranteeing approximately 11.3M kilowatt-hour (kWh) per year at a blended rate of \$0.15 per kWh. Annual savings vary depending on PREPA rates; however, the blended rate from PPAs is lower than the rates charged by PREPA/LUMA.

Additionally, regions are implementing a set of non-capital-intensive energy conservation measures, including facility consolidations, minor repairs, operational optimization, and installation improvements. Electricity consumption has already been reduced by over 10%, from 740M kWh to around 650M kWh, since FY2023.

To support more sustainable and reliable operations, and to diversify energy sources, PRASA is focused on projects that integrate distributed generation systems (microgrids) with renewable energy sources and battery energy storage systems (BESS), interconnected with the electrical grid. A potential strategy to further reduce electricity costs is being evaluated based on increasing the use of renewable energy sources and leveraging regulatory mechanisms such as the PREB Wheeling program.

In FY2025, PRASA plans to implement two new initiatives from economic and environmentally friendly energy sources: new PPA agreements and microgrid projects. The PPA agreement, currently under negotiation, will require payments only when electricity is generated and wheeled to PRASA, with up to 130M kWh annually, approximately 20% of PRASA's total consumption, and subject to a minimum annual payment. Currently, four microgrid projects are expected to be implemented and financed with hazard mitigation funds. PRASA has identified 22 sites for potential microgrids, aiming to produce around 25% of its electricity from renewable or alternative sources, contingent on fund availability.

2.7 Federal Funds for Disaster Recovery and Resilience

As a result of damage caused by the 2017 Hurricanes (Hurricanes Irma and María), 2020 earthquakes, Hurricane Fiona, and other natural events, PRASA qualified for federal funding for infrastructure disaster recovery and mitigation projects. Additional federal support was allocated for disaster relief and hazard mitigation efforts, including reconstruction, recovery, environmental protection, and infrastructure enhancements. PRASA's dependency on federal funds poses a substantial risk, given the current uncertainty regarding its continuity. A thorough assessment of the potential impact of reduced federal funding on PRASA may be necessary. The main sources of federal funding for disaster recovery are Federal Emergency Management Agency (FEMA's) Public Assistance (PA) and Hazard Mitigation Grant Programs (HMGP); U.S. Department of Housing and Urban Development (HUD's) Community Development Block Grant – Disaster Recovery (CDBG-DR) and Mitigation (CDBG-MIT) Programs; and supplemental or special projects from U.S. Environmental Protection Agency (USEPA) and USDA RD. SRF Program funds are allocated as loans or grants for water and sanitation infrastructure, pollution control, and other projects, with additional appropriations provided through the Bipartisan Infrastructure Law (BIL) and SRF Supplemental Appropriation for Hurricanes Fiona and Ian (SAHFI) Programs.

2.7.1 Disaster Recovery Programs

PRASA's primary sources of disaster recovery federal funding include:

1. FEMA PA Program: This program addresses emergency work (e.g., debris removal and emergency protective measures) and permanent work (e.g., reconstruction of the System to current industry standards). PRASA, FEMA, and the Central Office for Recovery, Reconstruction, and Resilience (COR3) have been coordinating for years to define the projects that resulted in the FEMA Accelerated Award Strategy (FAAST) Initiative.

2. This program also provides funding for measures that would reduce or eliminate threats of similar future damage to the System that was damaged by previous disasters, also known as Section 406. Table 2-1 includes the projects expected to be completed using these funds.
3. In addition, FEMA's HMGP, also known as Section 404, provides funding to improve resiliency for facilities not damaged by a declared disaster. Grants provided under HMGP may be used with Section 406 funds to bring a facility to a higher level of disaster resiliency only when a disaster event damages portions of the facility. Table 2-2 includes the HMGP applications submitted by PRASA.
4. HUD CDBG-DR Program: PRASA is a sub-recipient of these funds, which provides annual grants to develop communities by providing decent housing and a suitable living environment in low and moderate-income areas.
5. HUD also includes CDBG-MIT under this program. CDBG-MIT funds are used for financial assistance to support areas impacted by recent disasters to carry out strategic activities to mitigate risks and reduce future losses. The CDBG-MIT program applies to costs not covered or in excess of funding available from the FEMA PA Program/HMGP Section 404. The CDBG-MIT applications submitted by PRASA are summarized in Table 2-3.

Table 2-1 Section 406 Funded Projects (\$ in M)¹

Project Name	Requested Amount		Approved Amount
	FEMA (406)	FAASt	
AMI Project	\$578.04	\$212.41	\$790.45
Enrique Ortega WTP Rehabilitation	\$2.33	\$124.48	\$126.81
Morovis Sur WTP Rehabilitation	\$3.89	\$40.46	\$44.35
42" Sewer Trunk Rehab PR 684 South to Barceloneta WWTP	\$17.10	\$25.76	\$42.86
Membranes - Isabela Lake	\$6.91	\$19.05	\$25.96
Lares Espino WTP Rehabilitation	\$1.80	\$22.92	\$24.72
Negros Corozal RWI Rehabilitation	\$5.95	\$0.71	\$6.66
Replacement Utuado Urbano WTP RWI (Viví Reservoir)	\$0.06	\$4.72	\$4.78
Morovis Sur WTP RWI Rehabilitation	\$0.85	\$1.86	\$2.71
Cayey Operations Office Rehabilitation	\$0.02	\$1.71	\$1.73
Total	\$616.95	\$454.08	\$1,071.03

¹ Source: 2025 PRASA Fiscal Plan

Table 2-2 HMGP Section 404 Projects Applications (\$ in M)¹

Project Name	Requested Amount	Approved Amount
East Region Water System Improvements (Valenciano)	\$417.5	\$18.5
Emergency Generators Units (EGUs) La Plata Phase I	\$1.4	\$1.4
Salinas WTP Phase I	\$2.7	\$2.7
Total	\$421.6	\$22.6

¹ Source: 2025 PRASA Fiscal Plan

Table 2-3 CDBG-MIT Projects Applications (\$ in M)¹

Project Name	FEMA (404)	Requested Amount	Approved Amount
Bauta Water Supply System	-	\$257.4	\$26.4
Broadband	-	\$48.0	\$48.0
Salinas WTP	\$2.7	\$24.3	\$27.0
Enrique Ortega WTP Generators	\$1.4	\$19.8	\$21.2
Total	\$4.1	\$349.5	\$122.6

¹ Source: 2025 PRASA Fiscal Plan

2.7.2 Consolidated Appropriations Act

The 2023 Consolidated Appropriations Act assigned \$555M in disaster relief supplemental funding for Puerto Rico's SRF programs: \$333M for Clean Water State Revolving Fund (CWSRF) and \$222M for Drinking Water State Revolving Fund (DWSRF). These supplemental funds are limited to states or territories in selected USEPA Regions affected by Hurricanes Fiona and Ian, including Puerto Rico.

PRASA applied for and received SAHFI capitalization grant awards from the USEPA by the end of the federal FY. PRASA must commit the awarded funds within one year of receipt of each grant payment. Eligible projects must aim to reduce flood or fire damage risk and vulnerability or enhance resiliency to rapid hydrologic change or natural disaster. PRASA is currently executing the Financial Assistance Agreement for these funds.

2.7.3 Infrastructure Investment and Jobs Act

The Infrastructure Investment and Jobs Act, also known as the BIL, established in November 2021, allocated funds over the subsequent five years to improve the transportation network and core infrastructure, including aging water infrastructure, upgrading water treatment facilities, addressing emerging contaminants in small and disadvantaged communities, and making water systems resilient. Additional funding was allocated for regional water protection, including estuaries and other specific projects. For FY2025, PRASA estimated \$95.96M of funding under the Act and projected approximately \$91.30M for FY2026.

2.8 Funding Status

The federal funds identified, obligated, and received as of March 31, 2025, are summarized below in Table 2-4.

Table 2-4 Federal Funding Summary (As of March 31, 2025, \$ in M)¹

Fund Name	Program	Funding Source	Identified Amount	Obligated/ Approved	Received
Reconstruction and Recovery	Permanent Work	FEMA (PA)	\$3,662.7	\$3,662.7	\$67.1
	Permanent Work (Working Cap Adv)	FEMA (PA)	-	-	\$452.1

Fund Name	Program	Funding Source	Identified Amount	Obligated/ Approved	Received
	Disaster-Related Hazard Mitigation	FEMA (406)	\$2,738.9	\$1,071.0	-
	Non-Disaster Related Hazard Mitigation (HMGP)	FEMA (404)	\$421.6	\$22.6	\$10.3
	CDBG-MIT	HUD	\$349.5	\$122.6	-
	CDBG-DR (Non-Federal Match Program)	HUD	\$406.9	\$400.0	\$13.7
	Direct Administrative Costs (DAC)	FEMA (PA)	\$213.6	\$213.6	-
	SRF – SAHFI	USEPA	\$555.0	\$545.0	-
	RD – Harvey, Irma, and María Grant	RD	\$24.7	\$24.7	\$24.7
	Emergency Communities Water Assist.	RD	\$3.6	\$3.6	\$3.6
	CY22 Disaster Grants (Fiona)	RD	\$18.4	\$18.4	\$18.4
	Reconstruction & Recovery Funds		\$8,394.9	\$6,084.3	\$589.9
Infrastructure Funds	CWSRF – Regular + BIL	USEPA	\$322.3	\$282.0	\$121.7
	DWSRF – Regular + BIL	USEPA	\$268.5	\$193.7	\$61.4
	Total Funds for Infrastructure Projects		\$590.8	\$475.7	\$183.1
Total			\$8,985.7	\$6,560.0	\$773.0

¹ Source: 2025 PRASA Fiscal Plan

A total of \$9B of funds have been identified, \$6.6B has been obligated, and \$773.0M has been received through March 31, 2025.

3 PRASA's Organization and Management

3.1 Introduction

According to Act Number 92, effective on March 31, 2004 (Act 92-2004), PRASA is organized into five Regions (North, South, East, West, and Metro), as shown in Figure 3-1.



Figure 3-1 PRASA Regions

PRASA's EMT provides daily management oversight and coordination for institutional activities. Several departments support the EMT, including finance, compliance, HR, customer services, legal, and information systems. Figure 3-2 shows PRASA's current organization.

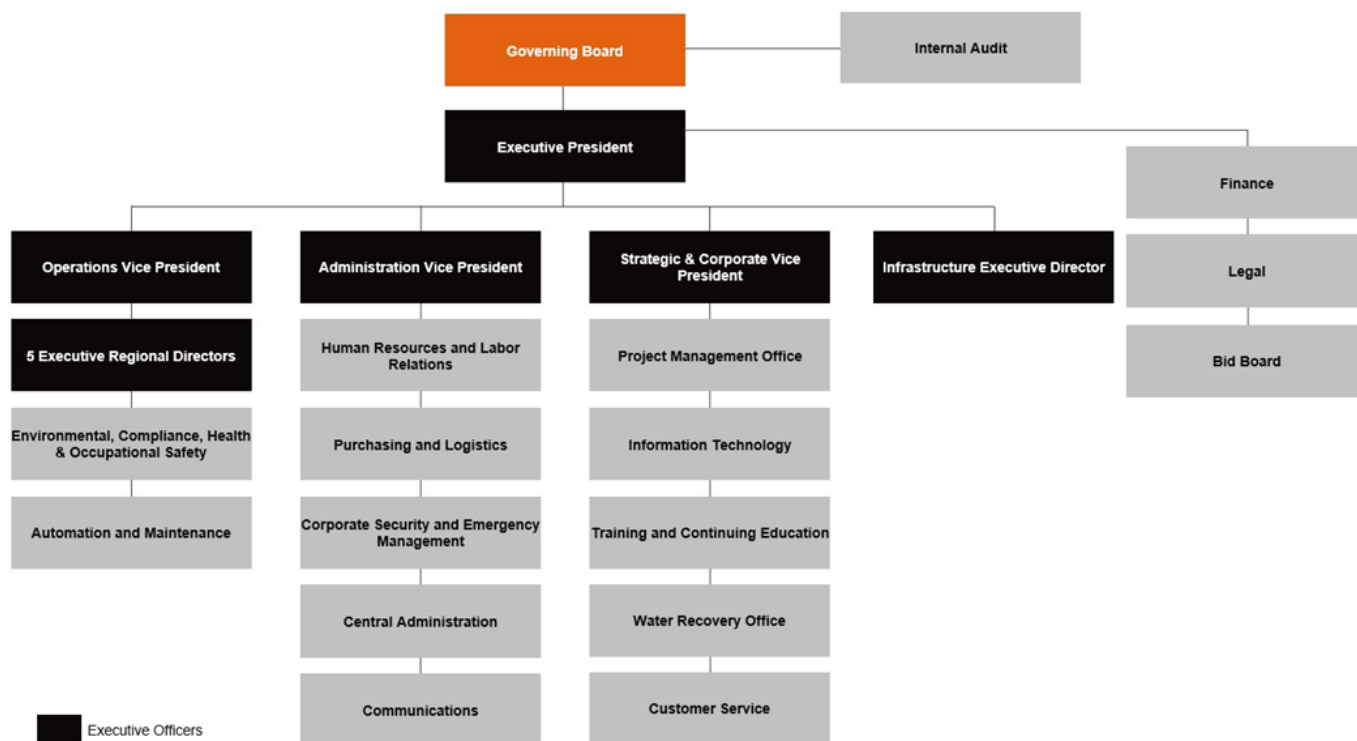


Figure 3-2 PRASA's current Legislated and Executive Management Structure

3.2 Updates and Changes in PRASA's Organization and Management

3.2.1 Board of Directors

According to restructuring as per Act Number 68 of 2016 (Act 68-2016), as amended by Act Number 2 of 2017, PRASA's Governing Board is composed of eight members (refer to Table 3-1), which include:

- Four independent directors appointed by the Governor of Puerto Rico, comprised of:
 - a. One engineer licensed to practice in Puerto Rico with at least 10 years of experience.
 - b. One attorney with at least 10 years of experience in Puerto Rico.
 - c. One member with broad knowledge and experience in the field of corporate finance.
 - d. One professional with expertise in any field-related functions, delegated to PRASA.
- One Consumer Representative, a private citizen representing PRASA's customers.
- Two ex-officio members: the Executive Directors of the Association of Mayors and the Federation of Mayors.
- One representative from AAFAF, as per Act 2-2017, while PRASA remains a covered entity under PROMESA.

Table 3-1 PRASA's Governing Board Members (as of August 17, 2025)

Name	Board Position	Position Description	Commencement Date	Term Ends
Héctor J. del Río Jiménez, Esq.	President	Independent Director/Finance	November 22, 2022	November 21, 2026 ¹
Rafael E. López Soler	Vice-President	Independent Director/Legal	August 14, 2025	August 13, 2030 ²
Iván E. López Báez, PE	Director	Independent Director/Engineering	August 17, 2025	August 16, 2030 ³
Javier B. Bayón Torres	Director	Independent Director	August 14, 2025	August 30 2030 ⁴
Ángel M. Morales Vargas	Director	Executive Director of the Federation of Mayors of Puerto Rico	July 31, 2025	Indefinite
Verónica Rodríguez Irizarry	Director	Executive Director of the Association of Mayors of Puerto Rico	August 19, 2022	Indefinite
Rita González Montalvo	Director	AAFAF Representative	March 25, 2025	Indefinite
Vacant	Director	Consumer Representative	-	-

¹ Mr. Del Río Jiménez has held the appointment since November 21, 2017.

² Mr. López Soler has been appointed since August 8, 2024.

³ Eng. López Báez has held the appointment since January 4, 2022.

⁴ Mr. Bayón Torres has been appointed since August 8, 2024.

Directors appointed by the Governor will be selected from ten candidates, vetted by a recognized executive search firm, and according to objective criteria, including the candidate's professional and educational backgrounds. The Consumer Representative will serve for a three-year term, with no term limits, and be chosen through a selection process under the jurisdiction of the Puerto Rico Ombudsman. The Governor-designated or elected Board members serve staggered terms: two members will hold office for five years and two members for six years. As these Board members' office terms expire, the Governor will appoint successors for five-year terms, following the exact candidate identification mechanism. None of the Governor's appointed members may hold such office for over three terms.

The Governing Board is responsible for making or approving major decisions taken by PRASA, including overall institutional policies, strategies and programs, executive and key management recruitments and terminations, approval of union contracts, professional services contracts beyond the limits accorded to the Executive President, and contract changes that are beyond the limits accorded to the Executive President.

3.2.2 Executive Management Team

Since enacting Act 92-2004, PRASA has implemented various organizational management changes, including the EMT. A summary of PRASA's key EMTs as of June 30, 2025, including previous positions and years of experience, is presented in Table 3-2.

Table 3-2 PRASA's EMT (as of June 30, 2025)

Name	Current Role	Term Ends	Prior Role	Experience Total/Experience at PRASA
Eng. Luis González Delgado	Executive President	Indefinite ²	Deputy Executive Director East Region	25 years/15 years
Eng. Luis Ortiz Salgado	Operations Vice President	Indefinite ²	Private Sector	18 years/1 year or less
Moisés Lugo Molina	Strategic and Corporate Planning Vice President	Indefinite ²	Deputy Director of Communications for the Metro Region	25 years/23 years
Karim del Valle Gregory	Administration Vice President	Indefinite ²	Communications Director	26 years/22 years
Alexander López García	Executive Director of Finance	Indefinite ²	AEELA – Auditor in Charge	15 years/1 year or less
Eng. Gabriel Morales Rodríguez	Executive Director for Infrastructure	Indefinite ²	Deputy Infrastructure Director	15 years/9 years
Vacant	Interim Executive Director Metro Region ¹	Indefinite ²	N/A	N/A
Eng. José Rivera Ortiz	Interim Executive Director North Region ¹	Indefinite ²	Toa Alta Area Director	27 years/26 years
Eng. Bruce León Ng	Interim Executive Director South Region ¹	Indefinite ²	Deputy Executive Director South Region	30 years/19 years
Eng. Enrique Rosario Agosto	Interim Executive Director East Region ¹	Indefinite ²	Deputy Executive Director East Region	27 years/17 years
Jorge Jiménez Rosario	Interim Executive Director West Region ¹	Indefinite ²	Water and Wastewater Systems Manager	24 years/19 years

¹ These roles are legislated positions.

² Indefinite per amended Act 40-1945 (Ley 68-2016), which allows EMT staff to be on an interim basis without a defined term of service.

3.2.3 Staffing Profile

PRASA's existing staff is categorized into the five primary categories described below:

- **Appointed Employees:** This category includes the executive staff, deputy and department directors, area directors, and administrative assistants who support key management personnel of the utility.
- **Management Employees:** These employees manage the day-to-day operations of the utility. They hold management positions both in the central and regional offices.
- **HIEPAAA Employees (*Hermandad Independiente de Empleados Profesionales de la Autoridad de Acueductos y Alcantarillados*):** These employees are the unionized professional staff that includes accountants, engineers, insurance specialists, project inspectors, and surveyors.
- **UIA-AAA Employees (*Unión Independiente Auténtica de la Autoridad de Acueductos y Alcantarillados*):** The unionized plant and System operators, maintenance, support staff, meter readers, customer service specialists, and administrative assistants.
- **Temporary Employees:** These employees are hired and classified as temporary until formally assigned to a regular position. New hires are placed in a 90-day probationary period. They do not have full benefits during the probationary period. If still employed after probation, they either become full-time employees (FTE) or renew their temporary employment contract.

At the end of FY2025, PRASA had a total headcount of 4,289 employees, including 126 employees under the Pre-Retirement Program. FTE staff decreased by 4.5% from FY2024 to FY2025, which represents 204 FTE employees. Based on the total number of active FTE employees for FY2025 (4,289), the ratio of service accounts (accounting for both water service and sanitary sewer service for the same client as two separate accounts) to employees was 479. The industry standard for combined (water and wastewater) utility operations averages from 328 to 590, with a median of approximately 471 customer accounts per employee². Therefore, based on the customer account per employee benchmarking ratio, PRASA falls above the median of the range for the industry. Table 3-3 shows the staff levels by staff category over the last five FYs.

Table 3-3 Staff Levels

End of FY	Appointed Employees	Management Employees	HIEPAAA Employees	UIA-AAA	Temporary Employees (UIA)	Pre-Retired Employees	Total Employees
2021	164	1,138	120	2,956	0	292	4,670
2022	171	1,094	116	2,963	6	254	4,604
2023	177	1,077	112	2,964	5	216	4,551
2024	176	1,047	112	2,987	5	166	4,493
2025	171	1,093	102	2,792	5	126	4,289
5-year CAGR⁽¹⁾	1.05%	-1.00%	-3.98%	-1.42%	-	-18.95%	-2.11%

Source: HR Department.

¹ CAGR is the acronym for Compound Annual Growth Rate.

² Source: 2024 AWWA Utility Benchmarking: Performance Management for Water and Wastewater.

3.2.3.1 Organization Optimization

During FY2021, PRASA engaged an external consultant to perform a labor capacity and productivity assessment study to determine PRASA's optimal staffing levels. In January 2022, the selected firm presented its final recommendations. The study, including amendments to incorporate updates on the Customer Service and Infrastructure Departments, identified a need for 5,000 employees, compared with PRASA's actual headcount of 4,493 as of June 30, 2024, of which 166 employees were under the Pre-Retirement Program. Based on the initiatives PRASA is currently implementing, the optimal headcount is now expected to be approximately 300 employees lower than what was established in 2022.

At the end of FY2025, PRASA had a total headcount of 4,289 employees. Ideally, PRASA will need to hire 411 additional employees to reach a headcount of 4,700 FTEs by FY2029. Below is a summary of PRASA's strategy to address the employee gap:

- Recruiting key technical and operating personnel, such as plant operators, electromechanics, and other workers for operations.
- Progressively recruiting personnel for positions left open as the pre-retired employees reach full retirement age.
- Filling headcount needs in the Infrastructure, Customer Service, and Compliance Departments, among others.

PRASA's recruitment will be prioritized based on position criticality and system needs.

To reach the total headcount required by FY2029, PRASA will continue to reevaluate its approach based on the results and benefits of the projected headcount additions, and the balancing of the FTE with overtime, external resources, fleet, and other resources availability.

The recruitment technology "Smart Tool" was determined not to be viable due to the excessive effort required to update its information. The most difficult roles to fill islandwide are electromechanics, operators, warehouse personnel, and fleet services coordinators. Recruitment for warehouse positions is particularly challenging due to the required experience and education. Additionally, salary dissatisfaction compared to current market rates also affects recruitment efforts.

PRASA's current hiring strategy focuses on recruiting for positions that are challenging to fill, particularly in departments that are understaffed and impacted by the Voluntary Pre-Retirement Program. A diverse set of positions essential to water and wastewater operations is currently subject to ongoing recruitment challenges. Roles experiencing shortages include licensed operators, operator assistants, substitute operators, maintenance staff, TSOs, microbiologists, laboratory technicians, light equipment personnel, potable water technicians, supervisors, maintenance supervisors, system managers, and purification mechanics. Additionally, technical service operators, electromechanics, sludge dewatering operators, sanitary sewer technicians, housekeeping staff, managers, supervisors, administrative assistants, preventive maintenance coordinators, and support staff such as clerks, janitors, and warehouse guards remain difficult to fill. The shortage of operations personnel has necessitated the Operations Department to rely on overtime hours and engage private contractors to manage facilities, impacting payroll metrics.

PRASA intends to continue identifying candidates and following hiring procedures, while complying with FOMB requirements, to further optimize its staff and address needs in critical areas. In addition, PRASA is currently redefining certain key performance indicators (KPIs) and specific goals for overtime and absenteeism labor indicators. The three main actions in this direction are as follows:

- Provide status updates to the Oversight Board regarding the system expected to be used in the workforce efficiency plan.
- Develop a plan to measure workforce efficiency.
- Continue tracking absenteeism and overtime levels to identify areas of opportunity.

In FY2023, PRASA reviewed its pay scales and implemented incentives for some critical operating positions, such as plant operators and electromechanics. An additional in-depth review and update to the pay analysis was completed in November 2024, to align the pay scales, when possible and necessary, with the OATRH (*Oficina de Administración y Transformación de los Recursos Humanos* by its Spanish acronym) pay scales (following the Government Civil Service Reform) or other representative comparable data, such as the salaries published by the American Water Works Association (AWWA), Economic Research Institute (ERI) or U.S. Bureau of Labor Statistics. The proposed Job Classification Plan and an updated Compensation Plan are under review by the Oversight Board, to then be discussed and negotiated with the unions prior to implementation.

3.2.4 Labor Relations

Several laws that affect PRASA's labor relations came into effect during the last few years, such as Act Number 26 of April 27, 2017 (Act 26-2017) and Act 176-2019. These laws have supremacy over any other law or agreement regarding the same matters. The aspects of these laws that affect PRASA are discussed below.

3.2.4.1 Voluntary Pre-Retirement Program (Act 211-2015)

The Government enacted Act Number 211 on December 8, 2015 (Act 211-2015), which created a "Voluntary Pre-Retirement Program". Act 211-2015 intended to create a program "whereby eligible employees of the Government of the Commonwealth of Puerto Rico may voluntarily separate from service by receiving incentives until they meet the requirements for retirement; provide for the requirement of credited years of service needed to qualify for this Program; established the timeframe for employees to exercise their option to avail themselves of the Voluntary Pre-Retirement Program; provided the special incentives that will be granted to employees who avail themselves of the Program; provided the requirements needed to implement the Program; and for other related purposes".

The program attempted to reduce the workforce progressively and voluntarily. The Voluntary Pre-Retirement Program was active until 2018, and no additional employees can be added. However, some employees still benefit from Act 211-2015 until they meet the requirements for the Pre-Voluntary Program. As of June 30, 2025, 126 PRASA employees remain active as pre-retired under the program.

3.2.4.2 Acts 26 of 2017 and 176-2019

To ensure the Government's compliance with the approved Fiscal Plan, Act 26-2017 was enacted. Act 26-2017 prevails over any previous law. Among other measures, Act 26-2017 requires marginal benefits to be the same for the Government of Puerto Rico employees, including public agencies, instrumentalities, and corporations, such as PRASA. The act froze and reduced some payroll benefits or compensation, including vacation and sickness licenses, payout terms of licenses, and bonuses. Subsequently, under Act 176-2019, certain amendments were reverted. Currently, PRASA employees' benefits include the following:

- Vacation licenses accumulate at a rate of 1.25 days per month of service and may accumulate up to a maximum of 15 days by the end of each natural year, and may accrue up to 60 days.

- Sickness licenses accumulate at a rate of 1.5 days per month of service and may be accumulated to up to 18 days by the end of each natural year.
- Licenses in excess will not be paid out, except for vacation days accrued up to 60 days.
- Elimination of all bonuses, except for Christmas bonuses, which shall have a maximum of \$600.
- Extra hours will be compensated at a maximum rate of 1.5 times the regular hourly rate.

3.2.4.3 Resolution 3302

Amendment to Resolution Number 2342 of October 30, 2007, to review and establish new minimum compensation scales for career employees (UIA, HIEPAAA, and Managers) based on new minimum salaries and a preliminary adjustment to the labor market. A full in-depth review and update to the pay scales was completed in November 2024.

3.2.4.4 Act 47

Act 47 of September 21, 2021, also known as the "Law of Minimum Salary, Vacations, and Sick Leave in Puerto Rico", establishes provisions related to the minimum wage, vacations, and sick leave in Puerto Rico. Act 47 provides for a phased increase of the minimum wage to \$10.50 per hour, with the main objective of protecting the labor rights of workers on the island.

3.2.4.5 Collective Bargaining Agreement

To maintain labor relations in good order despite the current environment of limited resources and rising operating costs, PRASA and its largest union, the UIA, reached a Negotiation Agreement. In 2012, PRASA and the UIA had consented to the Collective Bargaining Agreement (CBA), which expired in 2015 and was extended until June 30, 2021, pursuant to Act 3-2017. Subsequently, the agreement was further extended until June 2024, or until a new labor agreement is reached, as provided by Act 9-2021. New negotiations will be considered once the revised pay scales are implemented to better align with current needs, as well as several incentives for the benefit of both parties, always subject to compliance with PROMESA and PRASA's Fiscal Plan.

3.2.5 Training

PRASA offers a variety of training programs to its employees to enhance work management and productivity among its employees. In FY2024, PRASA provided over 101,764 training hours, averaging approximately 24 hours per employee. The Training Department's key performance indicator mandates two hours of training per employee monthly, globally evaluated, even if certain employees have not completed their allotted hours. The Moodle Online Training platform offers various active training sessions, with continual development aligned to departmental priorities and Standard Operating Procedures (SOP) reviews. The Training Department has a goal to upload three training courses a month. The department awarded a contract to Puerto Rico (PR) Virtual School to manage the Moodle platform, a virtual education and training system accessible via mobile devices and emails. Users are notified about both assigned and pending training sessions. This partnership with PR Virtual School was initiated in FY2025 and is ongoing until 2029. Expansion and updates to training centers are in progress, with construction at Mayagüez WWTP for the West Region center and plans for the North Region remodel. New initiatives include scheduling personalized training in Moodle and the integration of Systems, Applications, and Products in Data Processing (SAP) with Moodle for streamlined registration. Challenges encompass the need for staffing in all areas,

including the recording studio, and resources for an effective merging of SAP and Moodle. The department completed and inaugurated the recording studio at the Central Building during FY2023. This studio aims to enhance training material production quality and facilitate the creation of engaging and informative content for employee development programs. Providing a dedicated space for recording and editing training resources, the studio contributes to the department's goal of delivering high-quality and engaging training experiences to PRASA staff.

The department is working on creating a program for Onboarding and a School for Supervisors and Operators. The onboarding program is scheduled for July 2026. To work on the initiatives, the department needs staffing in all areas, including the recording studio, and resources for an effective merging of SAP and Moodle. The department currently runs all five Regions with ten personnel and seven independent contractors for training materials.

Approximately 99% of the employees participated in training activities offered by PRASA in FY2025. PRASA continues to invest in personnel training to enhance work ownership and productivity. Additionally, PRASA is committed to training and certifying its treatment plant operators to meet regulatory agency requirements. Table 3-4 summarizes the number of operators by the type of license held.

Table 3-4 FY2025 Operator Licensing¹

Facility	In Training ²	Type I	Type II	Type III	Type IV	Total
Water	82	38	33	62	203	418
Wastewater	19	14	7	12	79	132
Total	101	52	40	74	282	549

¹Does not include operators under the Voluntary Pre-Retirement Program.

²Does not include operators in training to upgrade their license category.

4 Condition of System Assets

4.1 Introduction

Arcadis evaluated the condition and operation of PRASA's assets through an inspection program of selected facilities in the System to meet the following objectives:

1. Assess the current physical state of the facilities inspected.
2. Determine if the facilities are being operated and maintained to achieve their operational goals.
3. Evaluate if PRASA's CIP is aligned with the System's identified needs.

Arcadis performed asset condition assessments of a selection of WTP and WWTP facilities corresponding to FY2025 and a sample of ancillary facilities. The facilities were inspected to assess the structural integrity and physical condition of the structures, the equipment's adequacy of operation and maintenance practices, and renewal and repair needs. Arcadis also evaluated the compliance performance results for the WTPs and WWTPs from January 1st, 2024, through December 31, 2024. The inspections for the dams were performed in April 2025. The WTPs, WWTPs, and ancillary facilities were inspected between March and June 2025. This section summarizes the inspection results, findings, and recommendations based on the condition of the assets inspected during FY2025 and detailed in the FY2025 Asset Condition Assessment (ACA) Report.

4.2 Facility Inspections

A summary of the facilities inspected between March and June of 2025 is presented in Table 4-1. Out of 3,957 facilities that comprise the System, 180 facility inspections were performed. Inspected facilities include eight Dams, 48 WTPs, 24 WWTPs, 20 Wells, 30 WPSs, 30 WSTs, and 20 WWPSs.

Inspections were not performed on the following assets: small dams and weirs, buried infrastructure, meters, ocean outfalls, buildings, and land. PRASA provided limited buried infrastructure condition data, which is included in Section 4.3.

Table 4-1 Percent of Assets Inspected by Category

Asset Category	Total PRASA Facilities ¹	Inspections Performed	
		Quantity	Percent
Regulated Dams	8	8	100
Water Treatment Plants	112	48	43
Wastewater Treatment Plants	50	24	48
Wells	244	20	8
Water Pump Stations	1,143	30	3
Water Storage Tanks	1,574	30	2
Wastewater Pump Stations	840	20	2
Total	3,971	180	5

¹ Data obtained from the PRASA Geographic Information System (GIS) was updated in June 2025. The total excludes 138 active RWIs and 75 RWPSs.

4.2.1 Inspections Methodology

Inspections were performed throughout PRASA's five Regions: North, South, East, West, and Metro. Table 4-2 shows the number of facilities inspected within each Region. Note that the total number of inspections performed in the Metro Region is lower than those performed in the other Regions since it has fewer but larger WTPs and WWTPs. Nevertheless, the Metro Region assets were inspected consistently with the other Regions.

Table 4-2 Summary of Inspections by Region

Asset Category	East	Metro	North	South	West	Total
Regulated Dams	3	2	1	1	1	8
Water Treatment Plants	12	6	13	10	7	48
Wastewater Treatment Plants	5	2	9	4	4	24
Wells	4	1	5	4	6	20
Water Pump Stations	6	6	6	6	6	30
Water Storage Tanks	6	6	6	6	6	30
Wastewater Pump Stations	4	4	4	4	4	20
Total	40	27	44	35	34	180

Following the same approach adopted by Arcadis in previous condition assessments, an attempt was made to obtain a random sampling of the ancillary facilities, like wells, WPSs, WSTs, and WWPSs, by inspecting a uniform number of minor facilities within each Operational Area. The Operational Areas for ancillary facilities that were visited were Arecibo and Utuado (North Region), Ponce and Yauco (South Region), Caguas and Fajardo (East Region), Mayagüez and Aguadilla (West Region), and Guaynabo and San Juan (Metro Region). Only one well was inspected in the Fajardo, Utuado, and Guaynabo Operational Areas; therefore, Arcadis visited additional wells. One additional well was visited in the Caguas, Mayagüez, and Aguadilla Operational Areas, and two in the Arecibo Operational Area.

The Assessment Inspection Forms for the asset categories (WTP, WWTP, Wells, WPS, WST, and WWPS) were revised in FY2024, reflecting updates to the scoring criteria applied in FY2025.

Each facility was inspected using an asset management application called Fulcrum that includes scoring and weighting criteria developed by Arcadis. The assets are grouped by type of facility: WTP, WWTP, Well, WPS, WST, and WWPS. Fulcrum was customized for each specific asset category to determine the asset's current state of repair and operation as influenced by age, historical maintenance, and operating environment. This platform facilitates access to the data gathered and allows for evaluation, monitoring, and generating asset-specific condition reports with digital photos and Global Positioning System (GPS) coordinates.

Each facility's compliance parameters were summarized and verified using a Microsoft Power BI Dashboard. Arcadis designed the Compliance Dashboard, and the source data is the "Data Cumplimiento FY2024-FY2025" information provided by PRASA. The dashboard summarized the following parameters, including, but not limited to: Total Organic Carbon (TOC), Trihalomethane (TTHM), Haloacetic Acids (HAA5), "Bacteriología", "Alcantarillado" (ALC), Sludge Treatment System (STS), Turbidity, and Flow.

The evaluation criteria used include the following:

- Regulatory Compliance – The degree to which the asset's performance complies with its permit limits and regulatory requirements.
- Operations/Process Control – The degree to which the asset condition and features allow it to be operated and controlled to meet its performance objectives.
- Equipment/Maintenance – An assessment of the adequacy of the maintenance practices and the condition of the facility.
- Staffing/Training – An assessment of facility staffing coverage and training adequacy.

The asset inspected was assigned a numerical score between zero and three within each evaluation criterion. An overall facility rating was then determined based on a weighted average of the ratings for each criterion. For example, for a WTP and WWTP, a weighted average was used per equipment listed in Fulcrum to account for the importance of critical equipment. The average of each equipment rating was considered for the overall facility rating. The general interpretation of the numerical ratings is described below.

<u>Rating</u>	<u>Range</u>
• Good (Most of the criteria are adequately addressed)	2.5 – 3.0
• Adequate (Many of the criteria are adequately addressed)	1.5 – 2.4
• Poor (Many of the criteria are not adequately addressed)	0.5 – 1.4
• Unacceptable (Most of the criteria are not adequately addressed)	0.0 – 0.4

An overview of the approach and results of the inspections for each asset category is discussed in the following sections. Refer to the FY2025 ACA for the detailed evaluation and results.

4.2.2 Inspection Results

According to the facilities' inspections performed in FY2025, an overall condition rating for each asset category was determined. The condition of the facilities varied mostly from adequate to those requiring capital or operation upgrades in addition to staffing and training needs. The inspection rankings and results per asset type are summarized in the following subsections.

4.2.2.1 Dams

PRASA's eight regulated dams were inspected between April 21 and 25, 2025. PRASA operates approximately 168 water distribution systems, of which 109 are supplied by surface water and 59 by subsurface water systems. All eight dams inspected for this assessment are classified as high-hazard dams, which could cause more than very little loss of life and serious damage to communities, industry, and agriculture if a failure occurs. Arcadis utilized the previous inspection reports from 2016, 2018, 2020, 2022, and 2024, along with PRASA's follow-up reports from 2019, as a baseline to perform independent visual inspections and operational assessments of the dam structures.

According to Puerto Rico's Dam Safety Program regulations, regulated dam facilities are to be inspected every three years. Timely and ample inspection of these dams is essential for permitting or approval required for the construction, modification, repair, or removal of the dam or the appurtenant works. Aside from the daily observation and operations of the fully staffed dam facilities, all of these structures are given a cursory safety inspection annually by PREPA prior to hurricane season. Starting in 2024, in-depth mechanical/electrical inspections will be performed every four years. Each recommendation, based on an inspection, is rated, indicating the priority for action. With this in consideration, Arcadis developed and used criteria and weighting factors to evaluate regulated dams. The criteria include Equipment and Maintenance, Regulatory Compliance, Operations and Process Control, and Staffing and Training, with Good, Adequate, or Poor ratings. Refer to the FY2025 ACA for details on the criteria and factors evaluated for the eight regulated dams inspected.

Table 4-3 summarizes the facility ratings by each evaluation criterion and the overall facility rating. As was the case in 2024, four dams (La Plata, Loíza, Isabela Regulator, and Las Curías) received a Poor rating in the Equipment/Maintenance category. Two of these dams also received a rating of Poor in the Regulatory Compliance category. Las Curías Dam received a Poor rating in the Operation/Process Controls category, while Las Curías Dam and Isabela Regulator Dam received a rating of Poor in the Staff/Training category.

Consequently, three dams (La Plata, Isabela Regulator, and Las Curías) received an overall rating of Poor, and the other five dams received an overall rating of Adequate. No dam received a combined rating of Good. Overall, all dams had increased ratings on at least one indicator due to ongoing improvements to address deficiencies noted in the previous inspection.

Table 4-3 Regulated Dams – Number and Percentage of Ratings by Category

Rating Range	Regulatory Compliance		Operations/Process Control		Equipment/Maintenance		Staffing/Training		Overall Rating	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Unacceptable (0-0.4)	0	0	0	0	0	0	0	0	0	0
Poor (0.5-1.4)	4	50	2	25	1	12.5	2	25	3	37.5
Adequate (1.5-2.4)	4	50	6	75	7	87.5	6	75	5	62.5
Good (2.5-3.0)	0	0	0	0	0	0	0	0	0	0
Average Rating	1.4		1.6		1.7		1.8		1.6	

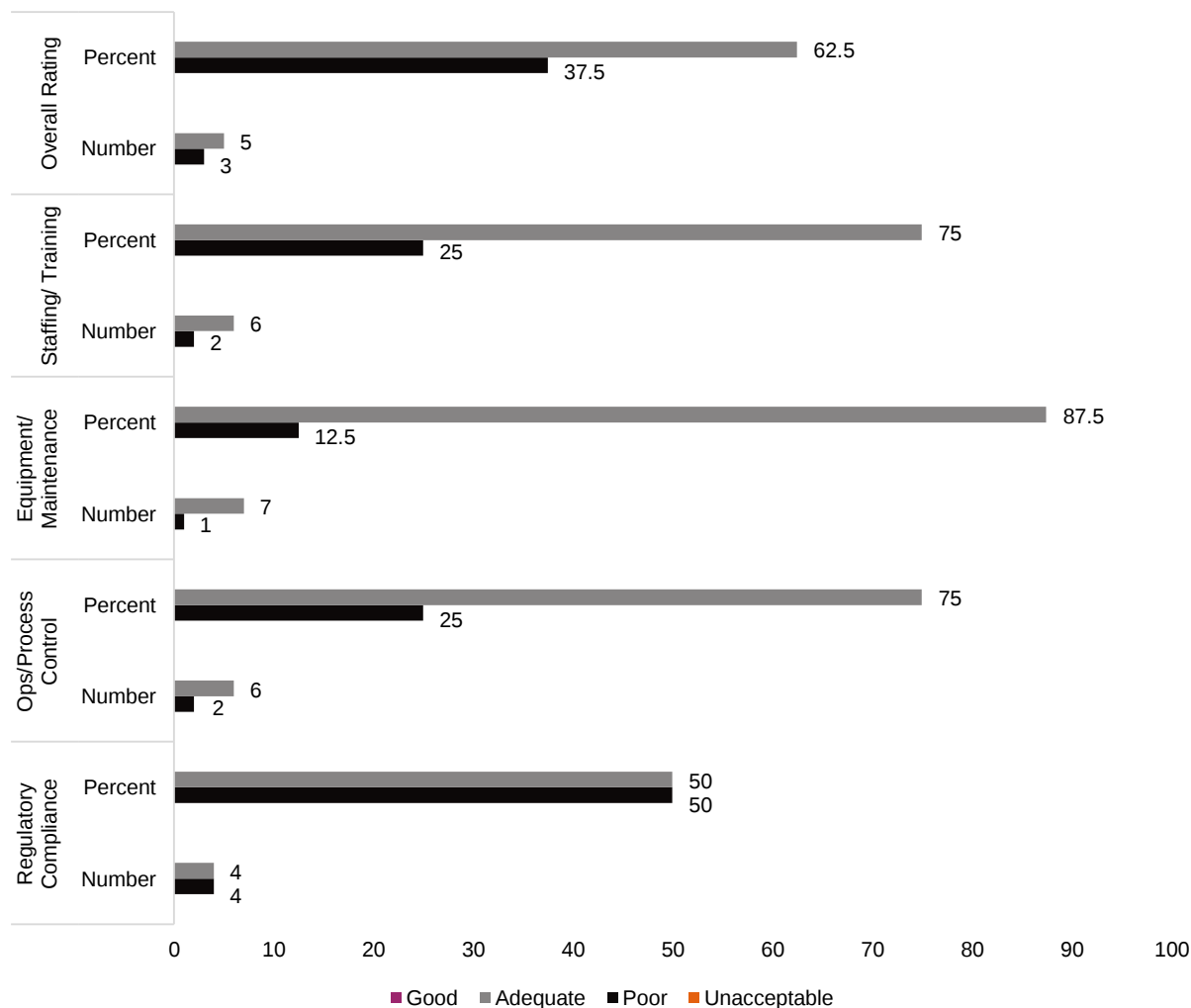


Figure 4-1 Regulated Dams - Number and Percentage of Ratings for Regulatory Compliance, Operations/Process Control, Equipment/Maintenance, Staffing/Training, and Overall Rating Categories

Figure 4-1 summarizes the regulated dam facility ratings by number and percentage of ratings for the evaluation criteria of Regulatory Compliance, Operations/Process Controls, and Equipment/Maintenance, Staffing/Training and Overall Rating categories.

4.2.2.2 Water Treatment Plants

PRASA operates 112 WTPs³ where it treats raw water to produce potable water for its customers. The islandwide WTP's design production capacity is approximately 571 MGD. The WTPs range from several thousand gallons per day to 100 MGD. For FY2025, PRASA reported a total water production of 496 MGD, of which approximately 88% or 437 MGD are from WTPs. A total of 48 WTPs (43% of total WTPs) were inspected as part of this assessment. Each assessment consisted of a thorough site visit and an interview with the operator, plant manager, plant supervisor, or designated personnel. Therefore, the information obtained was at least partly based on the

³ Source: PRASA GIS updated in June 2025.

understanding of the person being interviewed. Arcadis developed and used criteria and weighting factors to evaluate the WTPs. The criteria include Equipment and Maintenance, Regulatory Compliance, Operations and Process Control, and Staffing and Training with Good, Adequate, Poor, or Unacceptable ratings. Refer to the FY2025 ACA for details on the criteria and factors evaluated for the WTPs inspected.

Table 4-4 summarizes the inspection results for the 48 WTPs sorted by the four evaluation criteria and the overall facility rating. Three (6%) of the inspected WTPs, Antonio Santiago Vázquez WTP, Ciales Urbana (Cordillera) WTP, and Ponce Nueva WTP, were rated as Good, with an overall average of 2.5. For all the evaluated facilities, the overall average was 2.2. Only two facilities obtained an overall rating below 2.0 (4%). The remaining 45 (94%) facilities were rated as Adequate.

Table 4-4 WTPs – Number and Percentage of Ratings by Category

Rating Range	Regulatory Compliance		Operations and Process Control		Equipment and Maintenance		Staffing and Training		Overall Rating	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Unacceptable (0-0.4)	0	0	0	0	0	0	0	0	0	0
Poor (0.5-1.4)	0	0	2	4	4	8	31	65	0	0
Adequate (1.5-2.4)	6	12 ¹	30	63	43	90	16	33	45	94
Good (2.5-3.0)	42	88	16	33	1	2	1	2	3	6
Average Rating	2.8		2.2		1.8		1.3		2.2	

¹Numbers rounded, consider the sum to 100 percent.

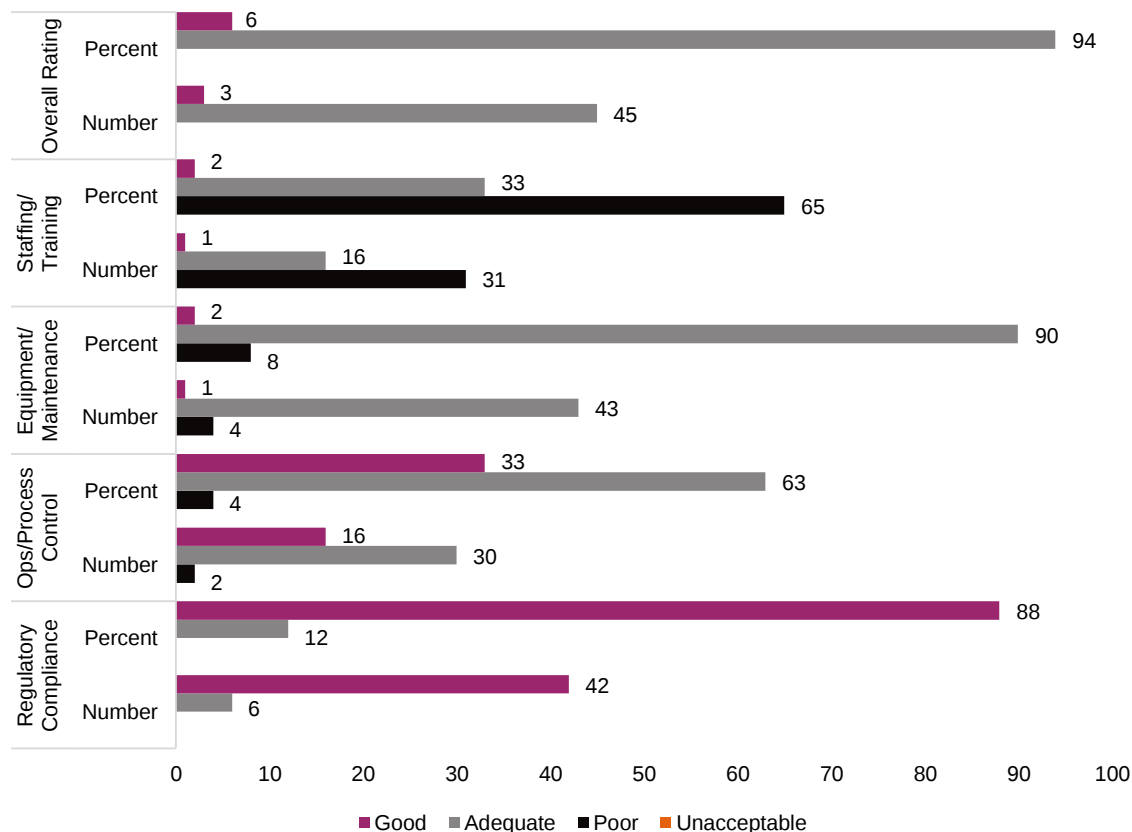


Figure 4-2 WTPs - Number and Percentage of Ratings for Regulatory Compliance, Operations/Process Control, and Equipment/Maintenance, Staffing/Training and Overall Rating Categories

Figure 4-2 summarizes the WTPs facility ratings by number and percentage of ratings for the evaluation criteria of Regulatory Compliance, Operations/Process Controls, and Equipment/Maintenance, Staffing/Training and Overall Rating categories.

4.2.2.2.1 Regulatory Compliance Findings

Most of the facilities were rated as Good in this category. The overall rating of WTPs in this evaluation category remained the same since the previous inspection, despite different facilities being inspected for FY2025. Compared to FY2024, the facilities continued to receive ratings of Good and Adequate. However, several compliance parameters had interim limits or were only monitored. The Cayey Urbano WTP (East Region), El Duque WTP (East Region), Río Blanco WTP (East Region), Enrique Ortega (La Plata) WTP (Metro Region), Guaynabo - Los Filtros WTP (Metro Region), and Coto Laurel WTP (South Region) were rated as Adequate. These facilities reported on TOC, THM, HAA5, turbidity, and total coliforms under the Safe Drinking Water Act (SDWA) parameters, and some violations were noted under the NPDES parameters for Biological Oxygen Demand (BOD), residual chlorine, and lead. The rest of the facilities were rated as Good.

In general, most facilities comply with regulations. PRASA continues to implement several operational strategies in the System to minimize incidences. Efforts are mainly targeted to address WTP issues contributing to disinfection byproducts (DBP) formation at the treatment process level.

Future regulations may require additional capital improvement to achieve higher levels of treatment at certain facilities, depending on the characteristics of the source water and the distribution system, such as USEPA residual chlorine, metals, phosphorus (P), and nitrogen (N), recent criteria. At the issuance process for an updated NPDES permit, PRASA continues to request interim limits, as determined by the Compliance Department, until the capital project for the said facility is executed and completed. The project completion term would be subject to the Prioritization System. In addition, PRASA is vigilant of potential future regulations, such as the Lead and Copper Compliance Rule and the Per-and Polyfluoroalkyl Substances (PFAS) groups, that may impact the water system and compliance with the regulatory agencies' requirements.

4.2.2.2.2 Operations and Process Control Findings

The Operations and Process Control in most WTPs inspected were rated as Adequate, 30 facilities (63% of inspected WTPs). However, two facilities (4% of inspected WTPs) were rated as Poor, and 16 facilities (33% of inspected WTPs) were rated as Good. The operations and process control scores have remained constant for the previous years. The two facilities rated as **Poor** were:

- Cubuy (Maizales) WTP (East Region)
- Río Prieto WTP (South Region)

4.2.2.2.3 Equipment and Maintenance Findings

This criterion rated the facilities inspected as Poor, Adequate, or Good. No facility was rated as Unacceptable. Of the 46 facilities inspected, 38 (79% of inspected WTPs) had a rating under 2.0. Only one (2% of inspected WTPs) of the facilities inspected was rated as Good regarding equipment and maintenance practices. The facility is Coto Laurel WTP (South Region).

Although rated as Adequate at the time of inspection, the following facilities are on the lower end of the scoring range (score below 2.0) and should be closely monitored. Equipment or maintenance deficiencies should be addressed:

- Barrancas WTP (East Region)
- Cayey Urbano WTP (East Region)
- Cubuy (Maizales) WTP (East Region)
- El Duque WTP (East Region)
- Espino WTP (East Region)
- Guayabota WTP (East Region)
- Jagual WTP (East Region)
- Yabucoa (La Pica) WTP (East Region)
- San Lorenzo Urbano (Cerro Gordo) WTP (East Region)
- Barrio Nuevo WTP (Metro Region)
- Enrique Ortega (La Plata) WTP (Metro Region)
- Guaynabo - Los Filtros WTP (Metro Region)
- Guzmán Arriba WTP (Metro Region)
- Sergio Cuevas WTP (Metro Region)

- Ciales Urbana (Cordillera) WTP (North Region)
- Esperanza WTP (North Region)
- Frontón WTP (North Region)
- Hatillo-Camuy WTP (North Region)
- Jaguas Pesas (Pozas) WTP (North Region)
- Mameyes de Utuado WTP (North Region)
- Morovis Sur WTP (North Region)
- Negros WTP (North Region)
- Río Arriba WTP (North Region)
- Roncador WTP (North Region)
- Sabana Grande - Utuado WTP (North Region)
- Sanamueños WTP (North Region)
- Santa Isabel (Utuado) (North Region)
- Apeadero WTP (South Region)
- Jagua Ceiba WTP (South Region)
- Jaguas Pasto WTP (South Region)
- Mal Paso WTP (South Region)
- Rancheras WTP (South Region)
- Río Prieto WTP (South Region)
- Aguadilla (Montaña) WTP (West Region)
- Betances WTP (West Region)
- Culebrinas WTP (West Region)
- Guajataca WTP (West Region)
- Lajas WTP (West Region)

The deficiencies identified in several of these facilities are expected to be addressed through PRASA's capital or O&M projects.

4.2.2.2.4 Staff and Training Findings

The Staffing and Training category's overall rating is 1.3, which falls on the upper end of Poor, and it has decreased by 0.1 compared to the 2024 inspections. One (2% of inspected WTPs) facility received a Good rating, 16 (33% of inspected WTPs) facilities received an Adequate rating, and 31 (65% of inspected WTPs) facilities received a Poor rating in this category, mostly due to the need for staffing, including certified operators and/or lack of training. In FY2024, 28 facilities were rated as Poor compared to 31 in FY2025, which is an 11 percent increase. The personnel turnover is still an ongoing challenge for PRASA, along with the lack of training and the need for more certified WTP operators, as many qualified operators have migrated to the U.S. In addition to licensed operators, there is also a need for personnel in several key areas, including licensed operators at large, operator assistants, substitute operators, maintenance staff, TSOs, microbiologists, laboratory technicians, light equipment personnel, potable water technicians, WTP supervisors, maintenance supervisors, system managers, and purification mechanics.

4.2.2.2.5 Lowest Rated Facilities

Only two facilities had an overall score below 2.0 out of the 48 WTPs inspected. The observations of these facilities are described in Table 4-5.

Table 4-5 WTPs – Lowest Rated Facilities and Observations

WTP	2025 Score	Observations
Cayey Urbano WTP (East Region)	1.7	During the evaluation period, the facility's Compliance was rated adequate. However, certain parameters had interim limits or were only under monitoring. Specific violations were found in both the SDWA and the NPDES. Under the SDWA, the THMs parameter at the Tanque Cercadillo Final, Fam. Rodríguez (Juan Javier), Fam. Privada and Centro Mi Patria (Head Start) distribution points were deemed to be in minor non-compliance (MNC). Within the NPDES, violations were noted for the biochemical oxygen demand parameter, all falling under the category of MNC. The facility's Operations and Process control were rated as adequate. The operation and maintenance manual was not available at the time of the visit. Operators perform routine sampling, follow SOPs, and make the necessary process control adjustments. The emergency sign is damaged and not legible. The WTP discharges effluent via the NPDES permit, which has expired. The current stream monitor and jar test are used for process control. The calibration plan for chemical feed pumps is based on the scale of measurement, and chemical dosing modifications are determined and conducted based on raw water grab sample results. Jar tests are performed every shift. The EGU, 750 kVA, is capable of energizing WTP. However, the EGU facility is currently out of service, and a rented EGU is being used. Both the facility's EGU and the rented EGU (AAA-500C) are tested weekly (on Mondays). The facility's diesel tank has a capacity of 1,000 gallons. In case of power failures, operators use the AAA-282 form. Operators perform sampling for process control. There is no control room at the facility, although certain plant processes can be monitored from the WTP's main building. The WTP is operated manually. The pipelines need repainting, as the paint is faded and shows some signs of corrosion. No security measures are available at the facility, which does not provide adequate safety measures. Many units have leaks, creating fall hazards. During the site visit, open electrical panels were observed in the pipe gallery area. Lighting is needed in the sedimentation tanks. The facility is currently undergoing a paint coating process. The main building has areas with exposed rebar. Lastly, the facility has internet and telephone access. The facility's Equipment and Maintenance were rated as poor. The raw water intake at La Central has been inoperative since Hurricane María (4 pumps), and there is no EGU. The EGU for the Puente de Hierro intake is rented, and the raw water pipe has significant corrosion. The influent flow meter and the level sensor for the disinfection tanks of Sodium Hypochlorite 12.5% present false readings. The stream current monitor and one pump for distribution to Cercadillo Ward are out of service. However, motor pump #1 has been replaced. The chemical application system's chemical storage (GC 145) is located in a room without dike protection for spillage. Another maintenance issue is the need to correct excessive water leaks in the pump area and the pipe gallery. The valves for the sedimentation basin are defective and only operate manually. The filter media have intermixed layers and have not been replaced or replenished in 20 years. As part of the ongoing Emergencies Project (PRASA), six filters are being rehabilitated. Currently, Filter #2 is out of service for repairs. The facility does not have an air scouring system. In addition, the facility lacks an STS and a Dewatering System, and sludge is currently discharged directly to Point 001. Excessive corrosion was observed on the roof of the dechlorination application system. The EGU facility is under warranty, but the diesel storage tank requires maintenance due to high corrosion. Additionally, the EGU does not have the fuel supply line installed. The facility has several rental EGUs pending decommissioning. The ornamental brigade conducts routine maintenance. At the facility, corrective maintenance is needed in the pipe

WTP	2025 Score	Observations
		gallery, where multiple leaks have been unattended for a long period. There is an outstanding warranty for the facility's EGU. Lastly, the facility is not under a CIP and does not have as-built drawings available. The facility's Staffing and Training were rated as adequate. This category has improved compared to the previous inspection since the WTP is operated 24 hours a day. Currently, two operators are pending Puerto Rico Department of Health (PRDOH) certification. The vacancy for the operator-at-large position and confined spaces training has been filled. Lastly, Hazardous Waste Operations and Emergency Response (HAZWOPER) training is still pending.
Enrique Ortega (La Plata WTP) (Metro Region)	1.7	During the evaluation period, the facility's compliance was rated as adequate. However, for the SDWA compliance parameters, it had one MNC for THMs and one significant non-compliance (SNC) for combined filter effluent (CFE) turbidity. For NPDES, we had two SNCs for turbidity and lead (Pb) parameter, and one MNC for the biochemical oxygen demand parameter. The facility operation and process control of the WTP were rated as adequate. The available version of the operation and maintenance manual is from 2013. The sanitary survey performed by the Health Department was conducted at the beginning of 2024. The Emergency Response Plan (ERP) was updated in 2023. The NPDES is up to date. The operators perform routine sampling at different locations during the day, follow SOPs, and perform the necessary process control adjustments. The jar test is performed when necessary. The facility is equipped with an EGU and is capable of energizing the facility. The process laboratory is on-site, and the operator takes the samples for process control. The lab equipment is adequate, and the calibration is up to date. The chemicals/supplies are on site, and they are properly stored. The pipes are labeled and colored adequate. The number of restrooms for the plant personnel; no bathrooms on the plant building's second floor. The facility has a security guard 24/7. The access road has several potholes. Car accidents cause gaps in the fence. The illumination at the facility is adequate. The facility has telephone and internet access. The facility equipment, and maintenance were rated as poor. Several equipment were out of service, starting from the raw water pumps through the STS. However, the facility is currently an ongoing project, through the CIP, that will address most of these deficiencies. The facility staff and training were rated as poor. The plant is understaffed for its operating hours and needs to fill at least eleven vacancies to operate the WTP efficiently. The new staff need PRDOH certification that meets the plant category requirements. Some training sessions are pending and will be assigned in the coming months.

The major concern is the facilities' physical condition, which deteriorates yearly. PRASA expects to address the identified deficiencies through the projected inflow of federal funds, supplemented by appropriate contributions from its internal resources to meet its needs.

4.2.2.3 Wastewater Treatment Plants

PRASA currently operates 50 WWTPs⁴. The facilities range from several thousand gallons per day up to 80 MGD. The islandwide design treatment capacity is approximately 377 MGD, and the treated wastewater for FY2025 was estimated at 232 MGD. PRASA has 13 plants designed to provide tertiary or advanced treatment, 31 plants designed to provide secondary treatment, and the remaining six facilities (which account for approximately 222 MGD of treatment capacity) provide primary treatment.

⁴ Source: PRASA GIS updated in June 2025.

A total of 24 WWTPs (48% of total WWTPs) currently in operation were inspected as part of this asset evaluation. Each assessment consisted of a thorough site visit and an interview with the operator, plant manager, plant supervisor, or designated personnel. Arcadis developed and used criteria and weighting factors to evaluate the WWTPs. The criteria include Equipment and Maintenance, Regulatory Compliance, Operations and Process Control, and Staffing and Training with Good, Adequate, Poor, or Unacceptable ratings. For the Equipment and Maintenance criterion, the inspection forms show scores distributed by type of processes for ease of identification of deficiencies, including Pretreatment, Primary Treatment, Secondary Treatment, Tertiary Treatment, Sludge Treatment and Handling, Disinfection and Discharge, and Miscellaneous (Non-potable water (NPW), Back-up Power, Septage). Refer to the FY2025 ACA for details on the criteria and factors evaluated for the WWTPs inspected.

Table 4-6 summarizes the WWTP ratings for each of the four evaluation criteria and the overall facility rating. Overall, of the 24 facilities inspected, none were rated as Unacceptable or Good. A total of 16 (67% of inspected WWTPs) were rated as Adequate, while eight (33% of inspected WWTPs) were rated as Poor in the overall rating. However, two (Fajardo WWTP and Lares WWTP) of the 16 WWTPs rated as Adequate in the overall rating were on the lower end, close to being rated as Poor.

Table 4-6 WWTPs – Number and Percentage of Ratings by Category

Rating Range	Regulatory Compliance		Operations and Process Control		Equipment and Maintenance		Staffing and Training		Overall Rating	
	Number	Percent ¹	Number	Percent ¹	Number	Percent ¹	Number	Percent ¹	Number	Number
Unacceptable (0-0.4)	6	25	0	0	0	0	0	0	0	6
Poor (0.5-1.4)	7	29	2	8	0	0	8	33	8	33
Adequate (1.5-2.4)	4	17	17	71	24	100	11	46	16	67
Good (2.5-3.0)	7	29	5	21	0	0	5	21	0	0
Average Rating	1.4		2.2		1.8		1.8		1.8	

¹ Numbers rounded, consider adding to 100 percent.

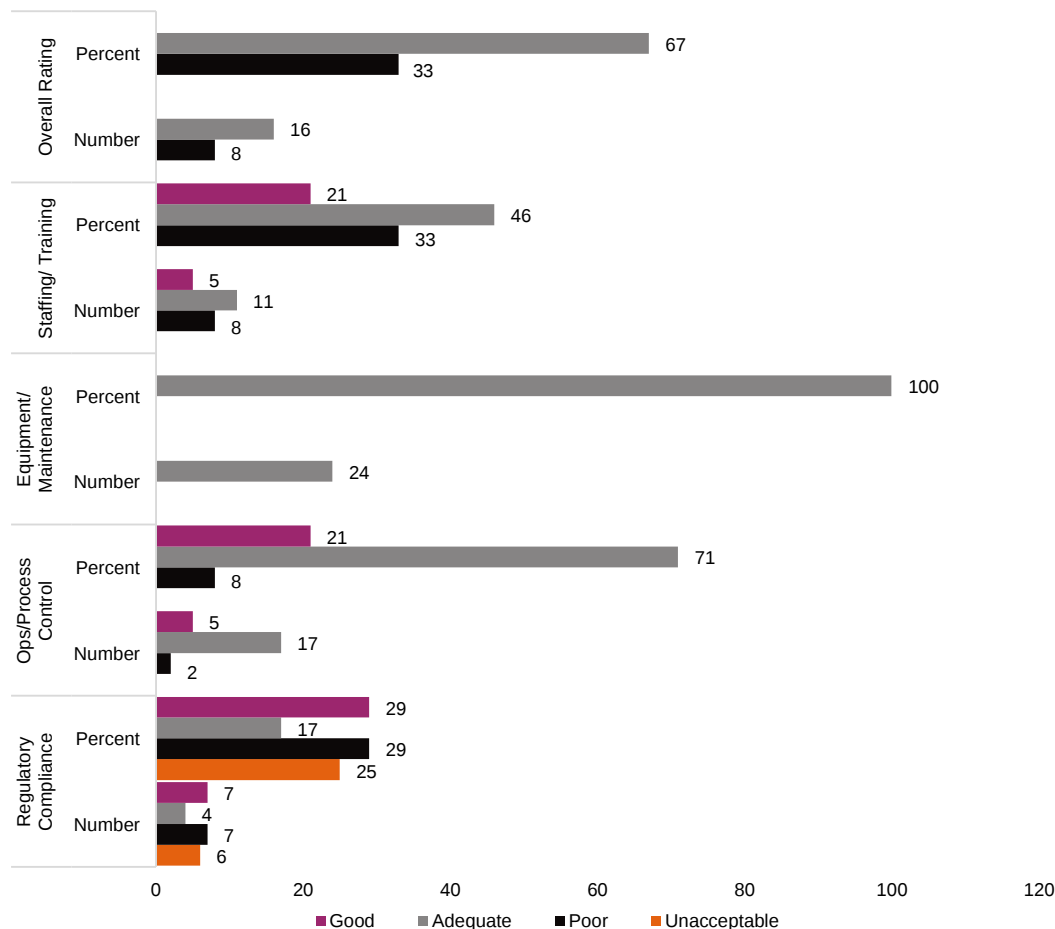


Figure 4-3 WWTPs - Number and Percentage of Ratings for Regulatory Compliance, Operations/Process Control, and Equipment/Maintenance, Staffing/Training and Overall Rating Categories

Figure 4-3 summarizes the WWTPs facility ratings by number and percentage of ratings for the evaluation criteria of Regulatory Compliance, Operations/Process Controls, and Equipment/Maintenance, Staffing/Training and Overall Rating categories.

4.2.2.3.1 Regulatory Compliance Findings

The WWTPs received a combined score of 1.4 in Regulatory Compliance, which corresponds to a Poor rating. The equipment's condition and treatment units out of service have negatively impacted the compliance criterion. Scores could be even lower at some of the facilities inspected since some NPDES parameters have interim limits or are for monitoring only. Despite this, the results show that there were still exceedances. PRASA intends to address requirements stipulated under the 2015 USEPA Consent Decree, as recently amended in 2024, to achieve compliance objectives. These include new, more restrictive permit limits and major improvements that need to be implemented to achieve positive results. PRASA must make the necessary improvements to meet current limits, ensuring that, when interim limits are lifted, the necessary processes, tools, and conditions will be in place to meet the permanent permit limits.

Out of the 24 facilities inspected, six (25%) were rated as Unacceptable, seven (29%) received a Poor rating, four (17%) received an Adequate rating, and the remaining seven (29%) received a Good rating under the regulatory compliance criterion. The remaining treatment plants were rated as Adequate, except for Aguas Buenas WWTP, Aibonito WWTP, Bayamón WWTP, Utuado WWTP, Toa Alta WWTP, Isabela WWTP, and San Sebastián (Old) WWTP. The facilities rated as **Unacceptable** and **Poor** in this criterion were:

- Barceloneta WWTP (North Region) - Unacceptable
- Camuy – Hatillo WWTP (North Region) - Unacceptable
- Vega Alta WWTP (North Region) - Unacceptable
- Guayama WWTP (South Region) - Unacceptable
- Yauco WWTP (South Region) - Unacceptable
- San Sebastián (New) WWTP (West Region) - Unacceptable
- Fajardo WWTP (East Region) - Poor
- Yabucoa WWTP (East Region) - Poor
- Ciales WWTP (North Region) - Poor
- Corozal WWTP (North Region) - Poor
- Lares WWTP (North Region) - Poor
- Naranjito WWTP (North Region) - Poor
- Orocovis WWTP (South Region) - Poor

The nutrient removal and aeration process must be evaluated for some of these facilities to determine their optimal operation. In addition, repairs to key equipment and improvements to outdated or damaged components must be performed for WWTPs to operate properly and achieve the required compliance.

4.2.2.3.2 Operations and Process Control Findings

The WWTPs Operations and Process Control criteria were rated as Adequate, with a 2.2 overall rating. Of the 24 facilities inspected, zero facilities (0%) received a rating of Unacceptable, and two (8%) received a Poor rating under this criterion. The rest were rated as Adequate, except for Caguas WWTP, Lares WWTP, Vega Alta WWTP, Orocovis WWTP, and Yauco WWTP, which were rated Good. The facilities rated as **Poor** in this criterion were:

- Aguas Buenas WWTP (East Region)
- Corozal WWTP (North Region)

In general, some of the most significant deficiencies encountered during the inspections revealed the following:

- Lack of, or outdated versions of O&M manuals and equipment manuals
- Multiple critical components are out of service
- The security fence, access road, and lighting need improvements
- Jar tests are not performed regularly or at all
- Facilities without additional security and an NPW system, in some cases
- Grounds upkeep problems

In addition, it was observed that several WWTPs are facing challenges with process control of residual chlorine due to equipment failures. For example, Aibonito WWTP, Bayamón WWTP, Camuy-Hatillo WWTP, and Carolina WWTP have reported non-compliance with residual chlorine levels caused by issues such as malfunctioning pumps, clogged pipelines, and dosing inaccuracies. Similarly, Aguas Buenas WWTP, Caguas WWTP, Ciales WWTP, and Barceloneta WWTP have experienced difficulties with total nitrogen levels, attributed to elevation and cleaning challenges, as well as changes in USEPA regulatory parameters. These issues emphasize the need for proper equipment maintenance and the regular updating of operational procedures to ensure compliance with current regulations.

4.2.2.3.3 Equipment and Maintenance Findings

The Equipment and Maintenance category had an average overall rating of 1.8, Adequate. Equipment condition is the primary driver under this criterion. Out of the 24 facilities inspected, 100% received a Good rating in the Equipment and Maintenance criteria.

Despite all 24 of the inspected WWTPs being rated as Adequate at the time of inspection, 22 facilities (92% of inspected WWTPs) of those WWTPs are on the lower end of the scoring range (score below 2.0), and if unattended, could fall to a Poor or Unacceptable rating in the future.

These 22 facilities were:

- Aguas Buenas WWTP (East Region)
- Aibonito WWTP (East Region)
- Caguas WWTP (East Region)
- Fajardo WWTP (East Region)
- Yabucoa WWTP (East Region)
- Bayamón WWTP (Metro Region)
- Carolina WWTP (Metro Region)
- Barceloneta WWTP (North Region)
- Camuy-Hatillo WWTP (North Region)
- Ciales WWTP (North Region)
- Corozal WWTP (North Region)
- Guayama WWTP (South Region)
- Isabela WWTP (West Region)
- Lares WWTP (North Region)
- Naranjito WWTP (North Region)
- Ponce WWTP (South Region)
- San Germán WWTP (West Region)
- San Sebastián (Old) WWTP (West Region)
- San Sebastián (New) WWTP (West Region)
- Toa Alta WWTP (North Region)
- Vega Alta WWTP (North Region)

- Yauco WWTP (South Region)

The deficiencies identified in several of these facilities will be addressed through PRASA's capital or O&M projects in the future.

4.2.2.3.4 Staff and Training Findings

The Staffing and Training category was rated as Adequate, with an overall score of 1.8. Five facilities (21% of inspected WWTPs) were rated as Good, and most of the visited WWTPs, which totaled 11 facilities (46% of inspected WWTPs), received an Adequate rating in this category. No facilities received a rating of Unacceptable. The eight facilities that were rated as **Poor** in this criterion were:

- Aguas Buenas WWTP (East Region)
- Caguas WWTP (East Region)
- Bayamón WWTP (Metro Region)
- Barceloneta (North Region)
- Corozal WWTP (North Region)
- Utuado WWTP (North Region)
- Ponce WWTP (South Region)
- San Germán WWTP (West Region)

It has become evident that qualified operators have migrated to the U.S., as shown by the WWTP's lack of licensed operators to effectively cover the facility operating hours, including vacations and other absences. Besides licensed operators, the findings showed multiple vacancies for licensed operators at large, technical service operators, electromechanics, sludge dewatering operators, sanitary sewer technicians, maintenance and housekeeping staff, technical assistants (TAs), laboratory technicians, managers, supervisors, administrative assistants, and preventive maintenance coordinators. PRASA mitigates the needs by having existing staff work overtime or reducing shifts, increasing PRASA's overtime costs.

Although PRASA has installed remote monitoring systems (telemetry) through its Integrated Maintenance Program (IMP) in many facilities throughout the island, most WWTP facilities do not have it, or the equipment was out of service during the inspection. The ability to remotely monitor these facilities becomes particularly critical as most WWTPs are not staffed 24 hours per day, with many WWTPs having only one shift. In addition, most WWTP staff had the minimum required training level; however, they needed refreshers on key training courses and continuing education.

4.2.2.3.5 Lowest Rated Facilities

The 14 facilities with the lowest overall score (below 2.0) are summarized in Table 4-7. PRASA should address the deficiencies identified during the inspections to improve the physical condition of these facilities and achieve continuous and consistent compliance. These improvements may be related to new process equipment, process automation, or process control optimization.

Similar to the WTPs, future regulations may require additional capital improvement to comply with stringent levels of NPDES discharge parameters as per updates WWTPs' NPDES permits based on the Water Quality Certificate and agreements in the 2015 USEPA Consent Decree, as recently amended in 2024. During the issuance process

for an updated NPDES permit, PRASA requests interim limits for P, N, metals, and residual chlorine in some facilities until the capital project for the said facility is executed and completed. The project completion term is subject to PRASA's Prioritization System.

Regulatory Compliance and Staffing, and Training are the categories of major concern. Comparable to the WTPs, the major concern is the facilities' physical condition, which deteriorates yearly. PRASA expects to address the identified deficiencies through the projected inflow of federal funds, supplemented by appropriate contributions from its internal resources to meet its needs.

Table 4-7 WWTPs – Lowest Rated Facilities and Observations

WWTP	2025 Score	Observations
Guayama (South Region)	1.1	The facility's Compliance was rated as unacceptable, primarily due to several components being out of service because of the ongoing construction related to the capital improvements project. These disruptions have significantly impacted the facility's ability to meet regulatory requirements and operate efficiently, underscoring the need for timely completion of the project to restore full functionality and compliance. The facility's Operation and Process Control was rated as adequate. However, significant challenges remain in maintaining optimal performance. While operators perform the necessary sampling and follow SOPs to adjust the process, several deficiencies hinder overall efficiency. The O&M manual is outdated, limiting its effectiveness as a reference tool. Additionally, jar tests are not performed because a private company, rather than PRASA, owns the required equipment. Safety conditions are inadequate due to the ongoing construction at various components of the WWTP, with pipelines obstructing access to certain areas. Furthermore, the facility's access road, fencing, illumination, housekeeping, and overall appearance are substandard, largely due to disruptions caused by the ongoing project. These issues collectively impact the facility's ability to operate safely and effectively. The facility's Equipment and Maintenance were rated as adequate. However, several operational issues persist, affecting overall functionality. Mechanical bar screens are out of service due to mechanical problems, and their electric panels are not connected, limiting their use. Additionally, one lift pump is out of service, and ventilation in the lift pump station has failed. Grit pumps cannot be used because the pipelines are clogged, while the primary clarifier is operating with ongoing issues, including one transmission being out of service. Although improvements are planned under the CIP, the trickling filter system is currently non-operational, with a bypass system diverting flow from the primary clarifier to the contact channel. Corrosion has affected the WAS pumps, but they are included in the CIP for replacement. The digester tanks are out of service but are currently under construction, while the sludge drying bed media filters require replacement. Furthermore, there is no functional contact chamber, although new ones are planned under the CIP. The septage receiving system is not working adequately due to the compactor being out of service. Only one NPW pump is operational, and it is being considered for relocation to the new contact chambers. These issues collectively highlight the need for urgent maintenance and upgrades to restore full operational capacity. The facility's Training and Staffing were rated as adequate, indicating that personnel are adequately prepared and possess the necessary skills to operate the plant effectively. Lastly, confined spaces and continuing training sessions have not been offered. The facility's equipment and maintenance were rated as adequate; however, the structures appear to be deteriorated, indicating a need for repairs or upgrades. The degritter system is currently out of service, which may impact the facility's ability to remove grit effectively. Additionally, Plant B is experiencing operational problems, further

WWTP	2025 Score	Observations
		affecting overall performance. Due to the elevated location of the plant, it is not possible to clean the entire tank, which directly influences the treatment parameters and operational efficiency. A project has been scheduled to address this issue and provide a long-term solution to ensure proper tank cleaning and improve plant performance. The facility's staffing and training were rated as poor. There is a recognized need for additional personnel, specifically an Operator and a TA or TSO, to complete the staffing requirements. Filling these positions would enhance operational capacity, ensure adequate coverage, and provide additional support for the team to maintain high performance standards. Lastly, the confined spaces training and continuing education programs have not been completed.
Camuy-Hatillo (North Region)	1.2	The facility's Compliance was rated as unacceptable due to several critical non-compliance issues. The plant faced challenges with BOD and Total Suspended Solids (TSS) levels, primarily caused by engine transmission problems in the clarifier's mechanism. Additionally, there was non-compliance with residual chlorine levels, which resulted from a malfunctioning bisulfite application pump and a clogged pipeline. The facility's Operations and Process Control were rated as adequate, as operators consistently performed necessary sampling to make process adjustments. Despite this, there are several areas that require improvement. The O&M manual has not been updated. Additionally, the absence of a potable water meter limits the ability to monitor water usage accurately. The exterior lighting is inadequate, which may impact safety and security, and most of the buildings show signs of deterioration, requiring maintenance and repair. On a positive note, the facility is equipped with adequate communication tools. The facility's Equipment and Maintenance were rated as adequate. However, there are significant operational challenges due to several critical components being out of service. These include two degritter systems, three electric controls for the lift pump station, one pump (101) for both the primary and secondary stages, one belt filter press, and the transmission mechanism of one primary clarifier. The facility urgently requires substantial repairs, particularly in the pre-treatment area, which exhibits structural cracks and deterioration. Most major structures and equipment are aged and show signs of deterioration, complicating maintenance efforts. A new EGU has been installed at the facility. However, the corrective maintenance process remains slow and challenging. Compounding these issues, the facility has a pending project to consider either rehabilitation or demolition. The facility's Staffing and Training criteria were rated as adequate. However, one manager and one housekeeping staff member are necessary to comply with operational shifts. Additionally, all operators are certified to meet USEPA requirements. On a positive note, the training programs provided are adequate and meet the needs of the current operational team, ensuring that staff are well-prepared to handle day-to-day responsibilities.
Barceloneta (North Region)	1.2	The facility's Compliance was rated as unacceptable, with several noncompliance issues identified related to BOD, TSS, and N levels. These exceedances were primarily caused by changes in regulatory parameters established by the USEPA, as well as operational challenges, including a high sludge inventory in the secondary clarifier and issues with the recirculation pumps. To address these issues and restore compliance, PRASA has installed new pumps to improve system performance and manage sludge inventory more effectively. The facility's Operations and Process Control were rated as adequate, reflecting satisfactory performance in process management and operational oversight. However, several areas require attention to enhance overall functionality and safety. The available version of the O&M manual is outdated and needs to be updated to align with current practices. Additionally, the automatic transfer switch for the EGU is not functioning, requiring manual operation during power outages, which could delay response times. The odor control system is non-operational, potentially affecting air quality in and around the facility. While

WWTP	2025 Score	Observations
		the perimeter fence is damaged, repairs are underway to restore security. Furthermore, illumination across the facility is inadequate, which may compromise safety and efficiency during nighttime operations. The facility's Equipment and Maintenance were rated as adequate; however, several critical maintenance issues must be addressed to ensure optimal performance and reliability. The mechanical bar screens are currently non-operational due to mechanical problems, though a repair plan is in place. The odor control systems are out of service, potentially affecting air quality in the vicinity of the facility. One sump pump in the lift pump station is non-functional due to issues with the control panel, while a primary clarifier is out of service due to problems with the motor and transmission system. Additionally, the sludge pump pipelines for the primary and secondary clarifiers are clogged, further impacting operations. Two biological reactors show exposed rods and signs of deterioration, with deficiencies also noted in the aeration systems for the biological reactors and digestors. Currently, only two blowers are operational, and the holding tank diffusers are functioning with issues. The facility's centrifuge is damaged; however, a plan is in place to rent one as a temporary solution. Furthermore, three sludge pumps for the dewatering system are damaged; PRASA is actively installing new pumps to address this issue. Lastly, the facility is under CIP-2-47-5021 in the planning phase, while CIP-2-09-5016 is in the financing phase and has as-built drawings available. The facility's Staffing and Training criteria were rated as poor, indicating that the current team is generally capable of managing operations effectively. However, there are notable gaps in staffing that need to be addressed. Two operators at the facility are still pending certification, which is essential for ensuring full compliance and operational efficiency. Additionally, the facility is understaffed, lacking two maintenance personnel, one TA, and one at-large operator, which may impact the timely execution of maintenance and operational tasks. On a positive note, the training programs provided are adequate and meet the needs of the current operational team, ensuring that staff are well-prepared to handle day-to-day responsibilities.
Vega Alta (North Region)	1.3	During the evaluation period, the facility's Compliance was rated as unacceptable. The facility was found to be non-compliant with the following parameters at various times throughout the year: BOD concentration, TSS concentration, BOD removal efficiency, TSS removal efficiency, and phosphorus levels during different periods of the year. The facility's Operations and Process Control were rated as good. Operators consistently perform the necessary sampling and follow SOPs for making process adjustments. At the time of the inspection, the 2015 O&M manual and newer equipment manuals were available. Also, safety data sheets were accessible. Chemical feed pumps are replaced by a third-party vendor when not operating adequately, ensuring continued functionality. Chemical dosing is determined based on proportional relationships with influent flow. The facility has adequate backup power to operate without significant interruptions. Security cameras and alarms were in place, and the access roads were observed to be in fair condition. Lastly, the facility is equipped with a control room, internet access, and telephone connectivity. The facility's Equipment and Maintenance were rated as adequate, with most equipment in adequate condition. The contact stabilization package plant is out of service but remains filled and aerated to slow the corrosion rate of the tanks. The centrifuge and its polymer application system have been loaned to a third-party vendor but are operated by PRASA. Two pumps for the NPW System are currently out of service. These pumps are primarily used to control foam in the bioreactor and digester with water jets; however, the quality of the influent has been sufficient, so their use has not been required. However, the facility has been operating without grit removal for several years, which may contribute to increased wear and tear on downstream equipment. The vacuum-assisted sludge drying bed, according to PRASA's personnel, is not

WWTP	2025 Score	Observations
		needed and is pending demolition. Plant staff perform routine maintenance at WWTP. Lastly, the facility is not under CIP and does not have as-built drawings. The facility's Staffing and Training criteria were rated as adequate. One operator, who is new personnel at the facility, is currently pending certification. However, the "at-large" operator position has been filled since the last inspection, addressing one of the previous staffing concerns.
Yauco (South Region)	1.3	The facility's Compliance was rated as unacceptable due to several instances of noncompliance related to BOD and TSS. These issues arose because the clarifier of the Biological Nutrient Removal (BNR) system was out of service, leading to inefficiencies in wastewater treatment processes. The facility's Operation and Process Control were rated as good during the inspection, indicating that the core processes are functioning sufficiently to meet operational demands. However, it was noted that the O&M manual had not been updated at the time of the inspection. Additionally, the access road at the entrance was found to be in poor condition. The facility's Equipment and Maintenance were rated as adequate, but several critical issues were identified during the inspection. The mechanical clean bar screens are currently out of service, and two lift pumps are also non-operational, likely due to blockages. The degritter system has significant corrosion, and one of the pipelines is clogged, though there is a plan in place to clean the pipeline. Additionally, three blowers in the secondary treatment system are out of service; however, plans have been made to replace them with new ones. The entrance pipeline of BNR #2 has been found corroded and broken, and one recirculation pump is operating with noticeable vibration, which may lead to further mechanical failure if not addressed. The filters are unusable because their control panel is out of service, and the belt filter press is also non-operational due to programming issues. While plans are in place to address certain problems, the facility must prioritize repairs and replacements to ensure equipment functionality and maintain compliance with operational standards. The facility's Staffing and Training were rated as adequate, suggesting that current personnel possess the necessary skills and knowledge to manage operations effectively. However, it was noted that the facility is understaffed in key areas, including maintenance, utility, and administrative roles. This shortage of personnel may limit the facility's ability to address ongoing maintenance issues, optimize utility operations, and ensure efficient administrative processes.
San Sebastián (New) (West Region)	1.3	The facility's Compliance was rated as unacceptable due to several non-compliance issues related to BOD and TSS. According to PRASA, these exceedances typically occur when the San Sebastián (Old) WWTP is bypassed for maintenance purposes. The facility's Operations and Process Control were rated as adequate. Operators perform the necessary sampling, following SOPs for process adjustments. However, the available version of the O&M manual is not updated, and equipment manuals are unavailable. Chemical dosing modifications are determined and conducted based on the analysis of grab samples. Emergency numbers are posted, and the facility has adequate interior and exterior illumination. The facility is equipped with a new EGU and a diesel tank that are suitable for the plant's capacity. However, the facility's appearance has deteriorated, and both housekeeping and maintenance are needed. Lastly, the facility is located in a flood zone. The facility's Equipment and Maintenance were rated as adequate. Since the last inspection, much of the equipment has been repaired and maintained. However, several key components remain out of service, including one of the pumps at the lift station, a complete clarifier unit, one recirculating pump from the first stage trickling filter, another recirculating pump from the second stage trickling filter, and a blower from the digester aeration system. Additionally, the dechlorination chemical tank was not installed; the chemical was being dosed directly from the tote tank, which was sitting on the ground without a secondary container. The overall appearance

WWTP	2025 Score	Observations
		of the facility indicates that general maintenance and housekeeping are needed for all buildings and structures, including pressure washing, painting, and applying corrosion protection coatings. Lastly, the facility is under the CIP in the financing stage and does not have as-built drawings. The facility's Staffing and Training criteria were rated as adequate. However, the staffing needs at least one additional licensed operator to effectively cover the facility's operating hours, one maintenance personnel member, and two TAs. On a positive note, the training programs provided are adequate and meet the needs of the current operational team, ensuring that staff are well-prepared to handle day-to-day responsibilities.
Yabucoa (East Region)	1.4	The facility's Compliance was rated as unacceptable. Non-compliance issues were identified related to BOD and TSS parameters. These exceedances were primarily caused by ongoing maintenance activities, including the replacement of entrance pit valves and related work in the entrance pit involving pump replacements. The facility's Operations and Process Control were rated as adequate, reflecting a generally acceptable level of management and functionality. However, several areas require attention and improvement. The O&M manual has not been updated, and the Emergency Response Plan (ERP) is outdated, which could hinder the effectiveness of emergency preparedness. Additionally, while the facility has a potable water meter installed, it is currently non-functional. The perimeter fence is damaged in certain areas, compromising security, and there is insufficient illumination in the exterior areas, which may affect safety and operational efficiency during nighttime emergency activities. The facility's Equipment and Maintenance were rated as adequate. However, several deficiencies were noted that require attention and remediation. The facility currently lacks pretreatment systems, and the degritter system is out of service, affecting the efficiency of preliminary treatment processes. The influent building structure shows visible signs of deterioration, including cracks, exposed reinforcement bars, and an overall degraded appearance, indicating the need for rehabilitation to ensure structural integrity. In the package plant, the diffusers in the aeration area are in poor condition, preventing the use of blowers and limiting aeration functionality. Additionally, one NPW pump is out of service; however, a replacement plan is in place to address this issue. Lastly, the facility is under CIP in the planning phase and does not have as-built drawings available. The facility's Staffing and Training criteria were rated as good, indicating that the personnel are well-qualified and possess the necessary skills and knowledge to perform their duties effectively.
Corozal (North Region)	1.4	The facility's Compliance was rated as poor due to non-compliance issues related to BOD and TSS. These issues arose from clarifiers being out of service and problems with recirculation pumps 3 and 4. The facility's Operations and Process Control were rated as adequate, but several issues were identified: the O&M manual is outdated; the auto transfer switch is malfunctioning, requiring manual operation of the EGU; there is no potable water meter; some gratings are significantly deteriorated and corroded, posing safety risks; and parts of the facility's fence are broken. The facility's Equipment and Maintenance were rated as adequate, but several issues were identified: the manual bar screen is corroded; the degritter system is out of service; one lift pump is non-operational due to a damaged motor; one clarifier mechanism is broken; the scum collectors are corroded; two return activated sludge (RAS) pumps are out of service; and one pump sprayer is non-functional. Routine maintenance at the WWTP is performed by personnel from the Arecibo Operational Area. Additionally, corrective actions have been delayed due to budget constraints. The facility is not included in the CIP and lacks as-built drawings. Lastly, the overall appearance is inadequate. The facility's Staffing and Training were rated as poor due to several critical shortcomings. Currently, one operator at the facility is pending certification, and the facility requires at least one licensed operator and one at-large operator to ensure efficient operation. Additionally,

WWTP	2025 Score	Observations
		a supervisor is needed to oversee operations effectively. Training programs for staff also require updates to enhance their skills and maintain compliance standards.
Fajardo (East Region)	1.6	The facility's Compliance was rated as poor. There were notable noncompliance issues that arose during the reporting period. Excessive rains led to elevated levels of BOD and TSS, exceeding permitted limits. Additionally, phosphorus exceedances were observed, primarily attributed to challenges in sludge inventory management. These issues were compounded by ongoing repairs in the receiving area for sludge hauling containers associated with the belt filter press. The facility's Operations and Process Control were rated as adequate. The operators perform the necessary sampling, following SOPs, for adjustment to the process. However, the available version of the O&M manual requires updating. Additionally, the EGU lacks an automatic transfer switch, preventing it from operating automatically during power outages. Laboratory equipment and calibration received a good rating, reflecting proper functionality and maintenance. Some pipes within the facility were not color-coded appropriately. The UV system area suffers from insufficient illumination, further impacting operational safety. The entrance gate is broken and requires replacement to restore security. Despite these issues, the facility maintains adequate communication tools. The facility's Equipment and Maintenance were rated as adequate, but several issues were identified that require attention. The mechanical bar screens are currently out of service, though there is a plan in place for their replacement with new ones. Similarly, the grit pumps are out of service, but a replacement plan has been established. One of the biological reactors is non-operational due to damaged diffusers that need repair. Additionally, two NPW pumps are out of service due to burned motors, for which replacement plans are underway. Lastly, the automatic transfer switch is out of service, requiring the generator to be operated manually during power outages. Despite these equipment challenges, the facility has plans in progress to address and resolve these issues to ensure operational reliability. Lastly, the facility is under CIP in the design phase and has as-built drawings available. The facility's Staffing and Training were rated as adequate, indicating that the current team possesses the necessary skills and knowledge to perform their duties effectively. However, it was noted that the facility requires one additional licensed operator to meet operational demands.
Lares (North Region)	1.7	The facility's Compliance was rated as poor due to several non-compliance issues concerning BOD and TSS; this was primarily caused by a secondary clarifier being out of service, which disrupted the wastewater treatment process. The secondary clarifier plays a crucial role in removing suspended solids and reducing BOD levels by allowing for the separation of biological flocs from treated water. The facility's Operations and Process Control were rated as good, with the operator diligently performing sampling in accordance with the SOPs. However, the inspection revealed that the O&M manual had not been updated at the time. Additionally, the facility lacked an NPW system, though it was deemed unnecessary for their operation. The facility's Equipment and Maintenance were rated as adequate, yet several issues need urgent attention. A primary clarifier is currently out of service because of a damaged motor transmission, significantly impacting the treatment process. Additionally, the three gate valves at Splitter Box 1 are corroded and functioning poorly, which could hinder flow regulation. A secondary clarifier is also compromised due to problems with the bottom mechanism, rendering it unusable. Furthermore, the sludge drying beds lack gates. The safety shower in the chlorine application area is broken, posing a safety risk to workers, and the windsock needs to be replaced. While the NPW system will be eliminated, it is deemed unnecessary for the operation process. Personnel from the Utuado Operational Area perform routine maintenance at the WWTP. The facility faces challenges in implementing corrective maintenance due to financial constraints. Lastly, the facility is not included

WWTP	2025 Score	Observations
		in the CIP and lacks as-built drawings. The facility's Staffing and Training were rated as adequate, indicating that personnel possess the necessary skills and knowledge to operate and maintain the facility effectively. However, there is a clear need for one TSO to focus specifically on weeding and cleaning tasks. Lastly, confined spaces and HAZWOPER training sessions have not been offered.
Aguas Buenas (East Region)	1.9	The WWTP compliance was rated as good, indicating that it meets basic regulatory standards. However, there were instances of non-compliance with total nitrogen levels, which were attributed to elevation and cleaning issues at Plant B, as well as changes in USEPA parameters. To address these issues, an improvement project has been planned, which is expected to enhance nitrogen removal efficiency and ensure compliance with regulatory standards. The facility's Operations and Process Control were rated as poor. The O&M manual has not been updated to reflect current practices and procedures. Polymer is being applied in the aeration tank to enhance treatment performance, but the operators neither perform jar tests nor have the necessary equipment to conduct them. Additionally, the NPW system is not operational. Furthermore, the facility's perimeter fence is broken in some areas, posing security risks and potential non-compliance with safety standards. The facility's equipment and maintenance were rated as adequate; however, the structures appear to be deteriorated, indicating a need for repairs or upgrades. The degritter system is currently out of service, which may impact the facility's ability to remove grit effectively. Additionally, Plant B is experiencing operational problems, further affecting overall performance. Due to the elevated location of the plant, it is not possible to clean the entire tank, which directly influences the treatment parameters and operational efficiency. A project has been scheduled to address this issue and provide a long-term solution to ensure proper tank cleaning and improve plant performance. The facility's staffing and training were rated as poor. There is a recognized need for additional personnel, specifically an Operator and a TA or TSO, to complete the staffing requirements. Filling these positions would enhance operational capacity, ensure adequate coverage, and provide additional support for the team to maintain high performance standards. Lastly, the confined spaces training and continuing education programs have not been completed.
Caguas (East Region)	1.9	The compliance was rated as adequate overall; however, certain non-compliances were identified concerning phosphorus and total nitrogen levels. These issues stemmed from operational problems with the diffusers in the BNR system, which hindered optimal performance. Additionally, the situation was exacerbated by changes in the USEPA parameters, which introduced stricter regulatory standards, making it more challenging to meet the updated criteria. The facility's Operations and Process Control were rated as good, indicating general compliance with expected standards. However, several issues were identified that require attention. The available version of the O&M manual is outdated, as it has not been updated since 2010. Additionally, operators are not performing jar tests, which are essential for optimizing chemical dosing, and alumina is being applied during the process without proper testing. Furthermore, odor control systems are not functioning. Lastly, the facility's illumination requires improvements to ensure adequate lighting for safe and efficient operations during night shifts. The Equipment and Maintenance of the facility were rated as adequate; however, several critical issues were identified across key systems, significantly affecting the efficiency of each treatment process. One of the three mechanical screens is out of service, along with the extractors, while two lift pumps are non-functional but scheduled for verification. The degritter system is currently out of service, adding to the operational challenges faced by the major equipment in the primary and secondary treatment systems. Specifically, one primary clarifier tank is out of service due to corrosion and deterioration, and two clarifiers have jammed mechanisms due to sludge accumulation at the bottom of the tanks.

WWTP	2025 Score	Observations
		Furthermore, the odor control system remains inoperable because of damaged clarifier roofs. Additional problems include malfunctioning BNR diffusers, two out of three diamond filters requiring replacement, and two backwash pumps and electric control panels being out of service. These issues are severely impacting the facility's ability to operate the tertiary treatment system effectively, underscoring the urgent need for repairs and upgrades. Lastly, the facility is under CIP-3-13-9901 in the design phase, while CIP-3-13-5019 is in the financing process, and as-built drawings are available. The facility's Staffing and Training criteria were rated as poor. Two operators at the facility are still pending certification, which may impact compliance with regulatory requirements and operational efficiency. Additionally, the facility requires two licensed operators to meet staffing needs and ensure proper oversight of processes. Furthermore, the absence of a preventative maintenance coordinator highlights a critical need that is essential for smooth operations and preventive maintenance schedules. Addressing these staffing deficiencies is crucial for improving overall performance and compliance.
Naranjito (North Region)	1.9	The facility's Compliance was rated as poor. There were instances of non-compliance concerning BOD. These issues arose due to a clarifier being out of service and the impact of rain events. The facility's Operations and Process Control were rated as adequate, although there are areas that require attention. The O&M manual is outdated, and the facility does not have a potable water meter. Despite these issues, the operators efficiently conduct all laboratory sampling on-site, adhering to SOPs and maintaining comprehensive records. The NPW System is operational and used for cleaning facility units. However, security measures are lacking, as there are no security cameras or guards present. On a positive note, the EGU is capable of supporting the operation of the entire plant. The facility's Equipment and Maintenance were rated as adequate; however, several issues were identified that require attention. The degritter system pipeline is clogged, rendering the system unusable. The roof of the sludge drying beds requires cleaning, and the structure of the chlorine contact chambers is deteriorated. Routine maintenance at the WWTP is performed by personnel from the Arecibo Operational Area. Additionally, corrective maintenance efforts face significant challenges due to financial constraints, which impact the facility's ability to address these issues effectively. Lastly, the facility is not included in the CIP and lacks as-built drawings. The facility's Staffing and Training were rated as good, indicating that personnel are well-qualified and adequately trained to manage operations effectively.
Ponce (South Region)	1.9	The facility's Compliance was rated as adequate; however, certain noncompliance issues were identified. Specifically, there were instances of noncompliance related to residual chlorine and TSS, which resulted from changes in regulatory parameters by the USEPA. Additionally, it was noted that there is a bypass from the influent pit to the splitter box, which effectively skips the degritter system. This bypass has further contributed to the noncompliance, as the degritter system is not operational at the moment. The facility's Operations and Process Control were rated as adequate, indicating that the basic processes are functional and meet minimum requirements. The operators consistently perform the necessary sampling to make adjustments to the process, ensuring operational stability. However, it was noted that the O&M manual has not been updated. Additionally, jar tests are not being performed due to the absence of proper equipment. Furthermore, the illumination inside the facility is currently inadequate, although a plan is in place to address and resolve this issue in the near future. The facility's Equipment and Maintenance were rated as adequate, suggesting that while the equipment is generally functional, there are notable deficiencies. One hydraulic bar screen is currently out of service, and two lift pumps are non-operational due to burned motors, which may impact efficiency. Additionally, visible corrosion on some equipment and exposed rods in certain structures highlight ongoing deterioration that

WWTP	2025 Score	Observations
		requires immediate attention. The degritter system is not operational, with several components out of service and showing significant wear. Furthermore, the conveyor motor is out of service, rendering the degritter system unusable until repairs are completed. Two effluent pumps are also out of service due to burned motors; however, a plan is in place to address these issues and restore functionality to the affected equipment. Lastly, the facility is under CIP-4-58-5018 in the financing phase, while CIP-4-58-5096 is in the planning phase and has some as-built drawings available. The facility's Staffing and Training criteria were rated as poor, highlighting significant gaps in workforce qualifications and preparedness. There is a pressing need for licensed operators and a TA to ensure proper operation and compliance. Additionally, some operators currently lack the necessary certifications required to meet USEPA standards. However, their duties are currently covered under the licenses of the facility's manager and supervisor.

4.2.2.4 Wells

PRASA owns and operates 244 water wells⁵, most of which deliver water directly into a distribution system with little or no treatment except for disinfection by chlorination. PRASA's wells vary in size from 100 to 1,200 gallons per minute (gpm). A total of 20 wells (equivalent to 8% of total wells) from the Operational Areas of Caguas, Fajardo, Arecibo, Utuado, Guaynabo, Ponce, Yauco, Aguadilla, and Mayagüez were inspected in FY2025. Only one well was inspected in the Fajardo, Utuado, and Guaynabo Operational Areas; therefore, Arcadis visited additional wells. One additional well was visited in the Caguas, Mayagüez, and Aguadilla Operational Areas, and two in the Arecibo Operational Area. The facilities were assessed using the following criteria: facility-specific and regional-specific criteria. The facility-specific evaluation criterion considers a specific facility's operations, process control, and equipment aspects. The regional-specific criterion considers maintenance aspects carried out on a regional or operational area basis, and staffing and training aspects. Staffing and training were included to evaluate the adequacy of PRASA's assigned monitoring and operations personnel. The facility-specific (Operations/Process Control and Equipment) criterion was assigned a weighting factor of 75%, while the regional-specific (Maintenance/Training/Staffing) criterion was 25%. While compliance information is relevant to evaluating wells, this category was not included. The wells were rated as Good, Adequate, or Poor. Refer to the FY2025 ACA for details on the criteria and factors evaluated for the wells inspected.

Out of the 20 wells inspected, one received a rating of Poor, 15 were rated Good, and the remaining four were rated Adequate under the overall rating criteria. Note that even though only one well was rated as Poor, one (equivalent to 5% of the wells inspected) of the four wells rated in the Adequate range received an overall rating below 2.0. If left unattended, their condition could deteriorate, downgrading their rating to Poor or Unacceptable in the future.

Table 4-8 summarizes the facility ratings by each of the evaluation criteria, as well as the overall facility rating. As previously stated, the facility-specific criterion accounts for 75% of the weighted factor, as it is the key criterion for assessing the condition of the wells. One (5%) well was rated as Poor, four (20%) were rated as Adequate, and 15 (75%) were rated as Good. In addition, this inspection cycle had significantly fewer Operational Areas in the Regional Evaluation category rated in the Poor range compared to previous inspections.

⁵ Source: PRASA GIS updated in June 2025.

Table 4-8 Wells – Number and Percentage of Ratings by Category

Rating Range	Facility Evaluation		Regional Evaluation		Overall Rating	
	Number	Percent	Number	Percent	Number	Percent
Unacceptable (0-0.4)	1	5	0	0	0	0
Poor (0.5-1.4)	0	0	5	25	1	5
Adequate (1.5-2.4)	4	20	12	60	4	20
Good (2.5-3.0)	15	75	3	15	15	75
Average Rating	2.6		1.9		2.5	

PRASA has demonstrated an improvement in its wells' Facility Evaluation category for FY2025. No well facilities received a Poor rating in this category; compared to previous FY2024 inspections, when there were three facilities that received the Poor rating for the same category.

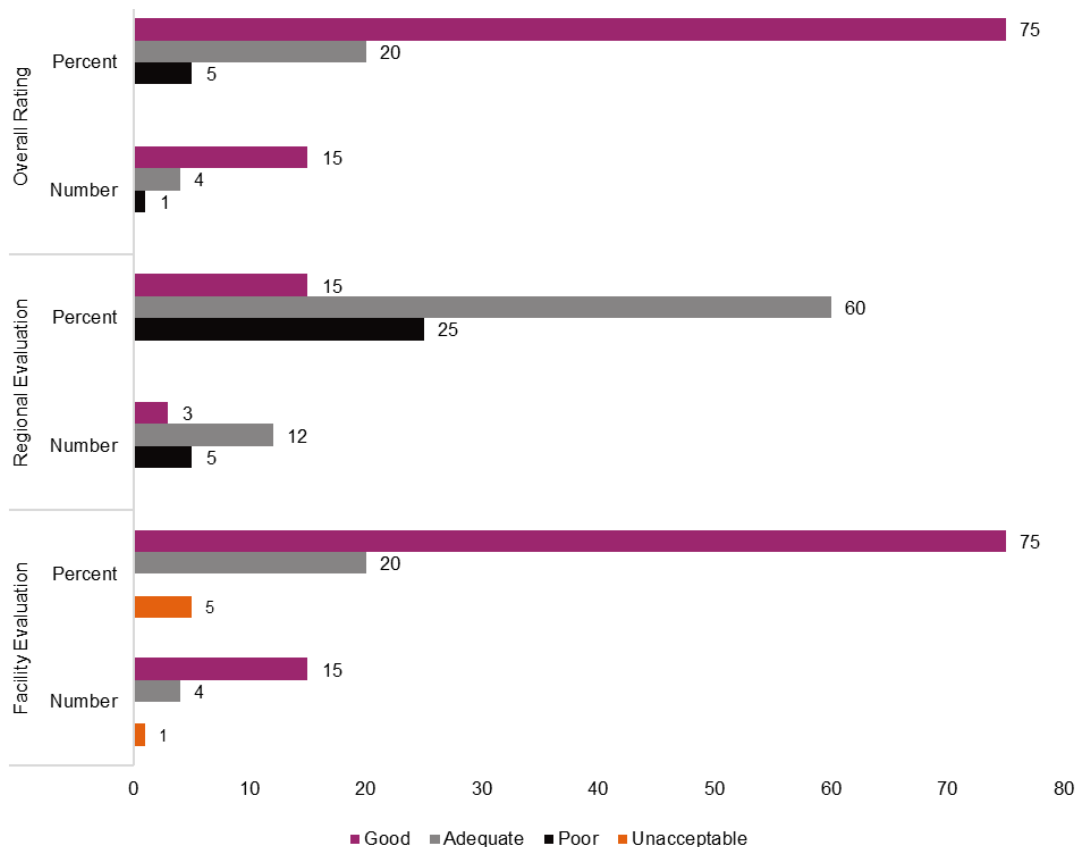


Figure 4-4 Wells - Number and Percentage of Ratings by Evaluation Categories

Figure 4-4 summarizes the facility ratings by number and percentage of ratings for each evaluation criterion, and the overall facility rating.

Table 4-9 shows the well that received an Unacceptable rating in the facility-specific category with a summary of the deficiencies identified during the inspection. The observed deficiencies in terms of regional-specific evaluations for Caguas, Fajardo, and Guaynabo Operational Areas for potable water systems (PWS) were inadequate maintenance parts inventory and inadequate staffing and training. The San Juan, Arecibo, Utuado, Yauco, Ponce, and Mayagüez Operational Areas were rated as Adequate with fewer deficiencies. The Aguadilla Operational Area was rated as Good. However, for the Aguadilla Operational Area, the following deficiencies were observed: the unavailability of O&M/vendor manuals, the unavailability of plans to implement major improvements, challenges in coordination between owner and contractors, and the unavailability of as-built drawings.

Table 4-9 Wells Rated as Poor in Facility-Specific Category

Facility	2025 Observations
Las Américas (Metro Region, Guaynabo)	The control panel is unlabeled, and remote monitoring (telemetry) is out of service. The facility is not visited daily, and the distribution and waste lines are not color-coded. There are severe leaks in the wellhead, and there is no online chlorine residual monitoring. Tanks of liquid chlorine are stored outside without roof coverage, and there is no safety shower at the facility. The illumination is inadequate. However, the overall appearance of the facility is satisfactory.

PRASA should look into mitigation initiatives to address some deficiencies identified during the inspections. However, for now, these wells are expected to continue serving their intended supplemental water supply function. Four main concerns were identified: improper color-coding of waste lines, repeated corrosion in several wells, absence of remote monitoring, and lack of EGU.

Most deficiencies can be addressed through PRASA's R&R program and may not require major capital improvements. Note that PRASA has an aggressive capital improvement plan as a result of the projected inflow of federal funds to cover (with appropriate contributions from PRASA's internal funds) its needs; hence, the deficiencies identified as Adequate, Poor, or Unacceptable are expected to be properly addressed in future years. In addition, future regulatory requirements may require significant capital improvements to include and achieve additional treatment capabilities at the well facilities or the closure of certain wells.

4.2.2.5 Water Pump Stations

PRASA owns and operates 1,143 WPSs⁶ and an additional 75 RWPSs⁷. The WPSs consist of two major categories: 1) above-ground pumps and 2) below-ground pumps inside vaults with heavy covers that cannot be readily removed by field inspectors, such as underground booster stations, which are not inspected. PRASA's WPSs vary in pumping capacity from less than 100 gpm to over 9,000 gpm. A total of 30 above-ground WPSs (3% of total WPSs) were inspected. Each assessment consisted of a site inspection and an interview with the designated personnel. The facilities were evaluated using facility-specific and regional-specific criteria to understand the facility's conditions better and obtain an overview of the Regions' Areas. The facility-specific criterion considers its operations, process

⁶ Source: PRASA GIS updated in June 2025.

⁷ Source: PRASA GIS updated in June 2025.

control, and equipment aspects. The regional-specific criterion considers maintenance aspects carried out on a regional or operational area basis, and the staffing and training aspects. In addition, staffing and training were included to evaluate the adequacy of PRASA's assigned monitoring and operations personnel. Refer to the FY2025 ACA for additional details on evaluating the WPSs inspected.

Table 4-10 summarizes the facility ratings for each of the evaluation criteria, as well as the overall facility rating. The average WPS's overall rating was Adequate, with a score of 2.4. The facility-specific criterion accounts for 75% of the weighted factor, as it is the key criterion for assessing the condition of the WPSs. There was no facility rated as Unacceptable under this category. One (3% of inspected WPSs) facility was rated as Poor under this category, San Martín from the San Juan Operational Area. Additionally, four WPSs rated as Adequate received an overall rating below 2.0; if left unattended, their condition could deteriorate, downgrading their rating to Poor or Unacceptable in the future. In addition, the overall Regional Evaluation of Operational Areas included ratings of Poor, Adequate, and Good across the areas evaluated.

Table 4-10 WPSs Number and Percentage of Ratings by Category

Rating Range	Facility Evaluation		Regional Evaluation		Overall Rating	
	Number	Percent	Number	Percent	Number	Percent
Unacceptable (0-0.4)	0	0	0	0	0	0
Poor (0.5-1.4)	1	3	9	30	1	3
Adequate (1.5-2.4)	8	27	18	60	11	37
Good (2.5-3.0)	21	70	3	10	18	60
Average Rating	2.6		1.8		2.4	

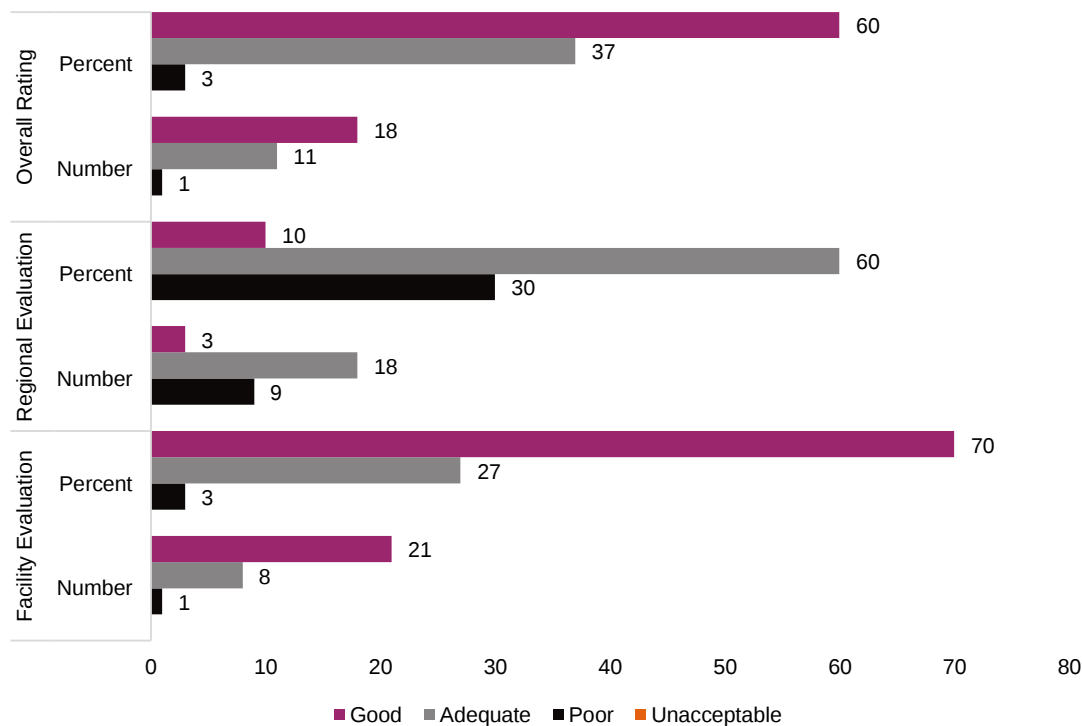


Figure 4-5 WPSs - Number and Percentage of Ratings by Evaluation Categories

Figure 4-5 summarizes the facility ratings by number and percentage of ratings for each evaluation criterion, and the overall facility rating.

Table 4-11 lists the deficiencies of the facilities rated as Poor in the facility-specific category.

Table 4-11 WPSs Rated as Unacceptable or Poor in Facility-Specific Category

Facility	2025 Observations
San Martín (Metro Region, San Juan)	The pump station's overall status is reported daily, and remote monitoring (telemetry) is functioning properly. However, the control panels are not adequately labeled, and the overall appearance of the facility is unsatisfactory. Additionally, there are severe leaks and moderate corrosion in the pipes and hatches. Overall, the facility is adequate.

The observed deficiencies in terms of the regional-specific evaluations for the Caguas, Fajardo, and Guaynabo Operational Areas for PWS, which were rated as Poor, were the following:

- Inadequate maintenance of parts inventory
- Inadequate staffing and training

In addition to the above common deficiencies observed, the Fajardo and Guaynabo Operational Areas indicated challenges in the parts procurement process. Furthermore, the Caguas Operational Area indicated the unavailability of O&M/vendor manuals, and the Guaynabo Operational Area indicated the unavailability of as-built drawings.

PRASA's Regions continue efforts under the IMP to install telemetry systems in all facilities to enable monitoring through Remote Operating Centers (ROCs). PRASA expects to address the identified deficiencies through the projected inflow of federal funds, supplemented by appropriate contributions from its internal resources to meet its needs. PRASA has included several projects to address WPSs in its CIP program.

4.2.2.6 Water Storage Tanks

PRASA owns and operates 1,574 WSTs⁸ that vary in storage capacity (size) from 100 to 10M gallons. A total of 30 WSTs were inspected in FY2025. Each assessment consisted of a site inspection and an interview with the designated personnel. The facilities were evaluated using facility-specific and regional-specific criteria to understand the facility's conditions better and obtain an overview of the Region's Areas. The facility-specific criterion considers a specific facility's operations, process control, and equipment. The regional-specific criterion considers maintenance aspects carried out on a regional or operational area basis, and the staffing and training aspects. Staffing and training were included to evaluate the adequacy of PRASA's assigned monitoring and operations personnel.

Out of the 30 WSTs inspected, 20 (67%) received an Adequate rating, and ten (33%) were rated as Good, under the overall rating. Note that there were no facilities rated Poor or Unacceptable, and the average overall rating was in the Good range (2.6). One of the WSTs rated Adequate (equivalent to 3% of the tanks inspected) received an overall rating below 2.0 and, if left unattended, its condition could deteriorate, downgrading its rating to Poor or Unacceptable in the future. In addition, the overall Regional Evaluation of Operational Areas was rated as Poor, Adequate, and Good. Table 4-12 summarizes the facility ratings by each of the two evaluation criteria and the overall facility rating. Emphasizing the facility-specific criterion, the WSTs rating distribution for this evaluation is as follows: six (20% of inspected WSTs) WSTs were rated as Adequate, and 24 (80% of inspected WSTs) were rated as Good.

Table 4-12 WSTs – Number and Percentage of Ratings by Category

Rating Range	Facility Evaluation		Regional Evaluation		Overall Rating	
	Number	Percent	Number	Percent	Number	Percent
Unacceptable (0-0.4)	0	0	0	0	0	0
Poor (0.5-1.4)	0	0	9	30	0	0
Adequate (1.5-2.4)	6	20	18	60	10	33
Good (2.5-3.0)	24	80	3	10	20	67
Average Rating	2.8		1.8		2.6	

⁸ Source: PRASA GIS updated in June 2025.

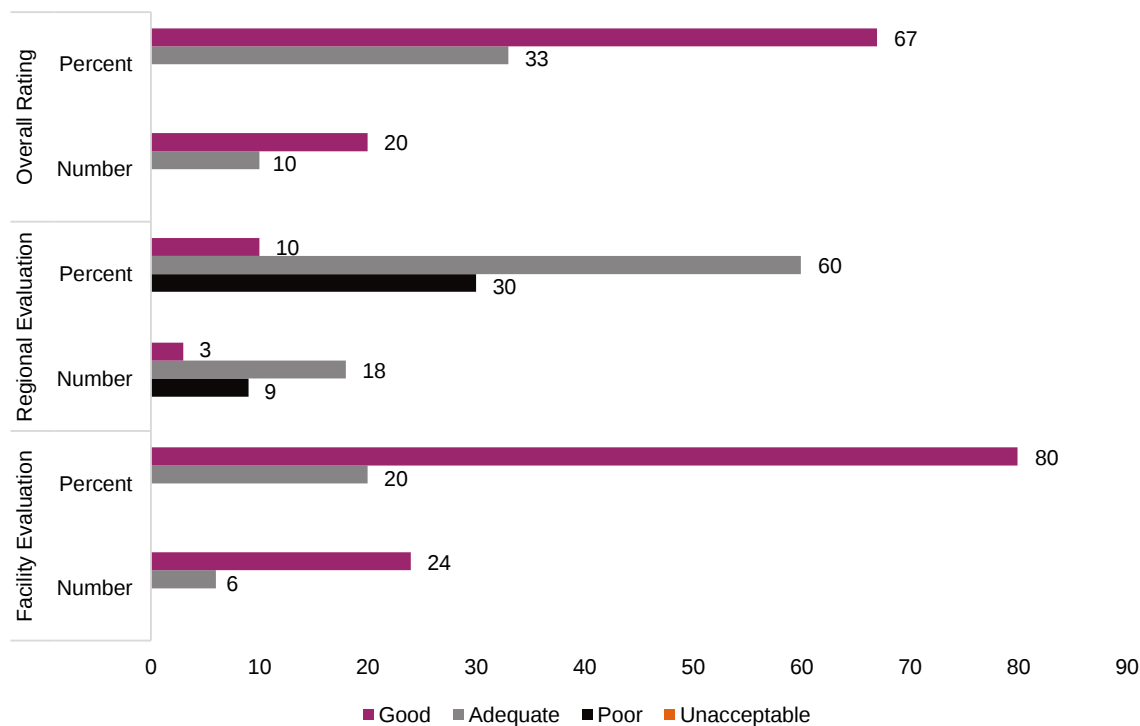


Figure 4-6 WSTs - Number and Percentage of Ratings by Evaluation Categories

Figure 4-6 summarizes the facility ratings by number and percentage of ratings for each evaluation criterion, and the overall facility rating.

The observed deficiencies in the Regional Evaluations are the same as described in the WPS section for PWS. PRASA has included several projects to address WSTs in its CIP, and it is expected to see improvements in the following years. In addition, remote monitoring continues to be a recommendation for the visualization of tanks' levels and as a preventative measure against water losses in the distribution system. PRASA continues this initiative by providing remote monitoring to those tanks identified as critical in the distribution system. Even though PRASA's Regions are at different stages of the WSTs optimization measures implementation, specifically visualization, all have established goals to achieve this, and will continue implementation until all facilities reach visualization.

4.2.2.7 Wastewater Pump Stations

PRASA owns and operates 840 WWPSs⁹, which vary in pumping capacity from less than 100 gpm to over 10,000 gpm, depending on the population density and its proximity to the receiving WWTP. A total of 20 WWPSs were inspected in FY2025. Each assessment consisted of a site visit and an interview with the designated personnel. The inspected facilities predominantly use wet pit-type submersible pumps. The overall results of the assessments of those stations are described below. Refer to the FY2025 ACA for additional details on the evaluation of the WWPSs inspected.

⁹ Source: PRASA GIS updated in June 2025.

The facilities were evaluated using facility-specific and regional-specific criteria to understand the facility's conditions better and obtain an overview of the Region's Areas. The facility-specific criterion considers a specific facility's operations, process control, and equipment. The regional-specific criterion considers maintenance aspects carried out on a regional or operational area basis, and the staffing and training aspects. Staffing and training were included to evaluate the adequacy of PRASA's assigned monitoring and operations personnel. The facility-specific (Operations/Process Control and Equipment) criterion was assigned a weighting factor of 75%, while the regional-specific (Maintenance/Training/Staffing) criterion was 25%.

Out of the 20 WWPSs inspected, nine (45%) received an Adequate overall rating, 11 (55%) received an overall rating of Good, and none were rated as Poor or Unacceptable. Table 4-13 summarizes the facility ratings by each evaluation criterion and the overall facility rating for the facilities inspected.

Table 4-13 WWPSs – Number and Percentage of Ratings by Category

Rating Range	Facility Evaluation		Regional Evaluation		Overall Rating	
	Number	Percent	Number	Percent	Number	Percent
Unacceptable (0-0.4)	0	0	0	0	0	0
Poor (0.5-1.4)	0	0	4	20	0	0
Adequate (1.5-2.4)	5	25	6	30	9	45
Good (2.5-3.0)	15	45	10	50	11	55
Average Rating	2.6		2.0		2.5	

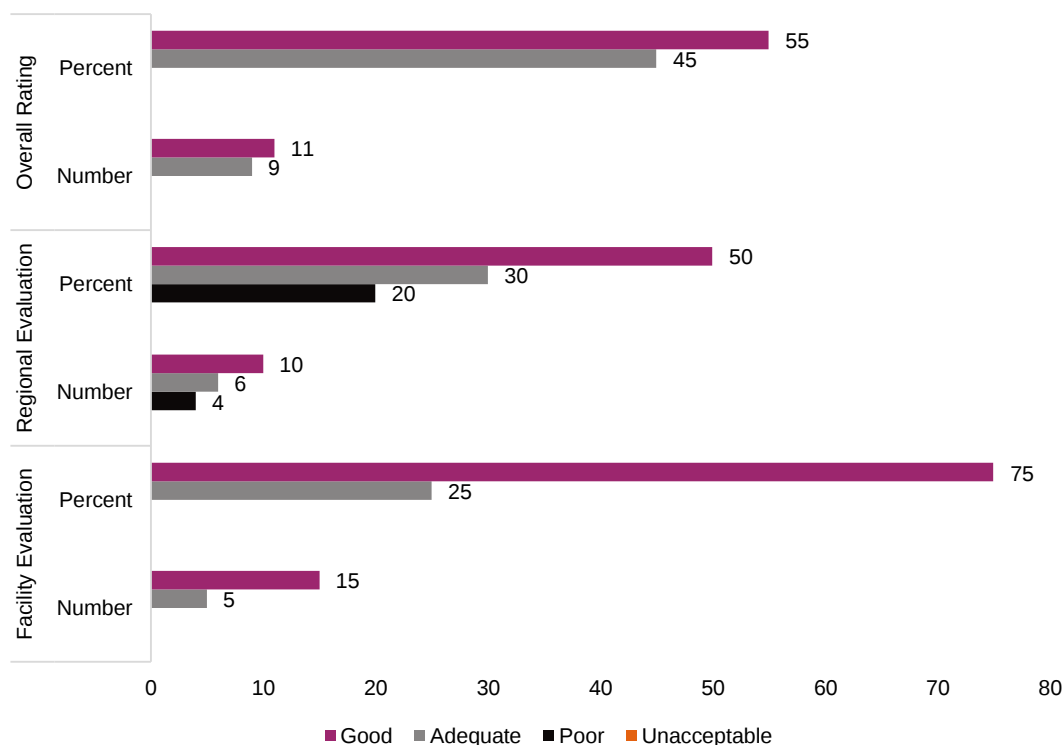


Figure 4-7 WWPSs - Number and Percentage of Ratings by Evaluation Categories

Figure 4-7 summarizes the facility ratings by number and percentage of ratings for each evaluation criterion, and the overall facility rating.

The deficiencies observed in terms of the Regional Evaluations for the Operational Areas of Fajardo and Yauco for the wastewater systems were classified as Poor. For Yauco, at the lower end of Poor (with a score of 0.8), and Fajardo at the upper end (with a score of 1.1), included the following deficiencies in common:

- Unavailability of a procedure to prioritize repairs
- Insufficient staff
- Inadequate training

Other deficiencies found for the Yauco Operational Area were:

- No maintenance tools available
- Insufficient maintenance parts inventory
- Unavailability of as-built drawings
- A written procedure for handling emergencies is not available

In addition, deficiencies found for the Fajardo Operational Area were:

- There is no maintenance software available for monitoring
- Problems with the acquisition of parts
- The facilities are not visited daily

The common deficiencies identified in the Regional Evaluations for Guaynabo, San Juan, and Arecibo Operational Areas for wastewater systems, rated as Adequate, were:

- Insufficient staff
- Inadequate training

In addition to the common deficiencies mentioned, the other Operational Areas evaluated, Caguas, Utuado, Ponce, Mayagüez, and Aguadilla, were rated as Good and also had some of the previously mentioned deficiencies. However, Caguas, Utuado, and Ponce did not have the O&M/vendor manuals available.

The deficiencies identified may not require significant capital upgrades but rather a modification to O&M practices or can be addressed through PRASA's R&R program. PRASA has included several projects to address WWPSs in its CIP, and it is expected to see improvement in the following years.

PRASA's Regions are at different stages of the WWPSs optimization measures implementation, specifically, visualization. All have established goals to achieve and will continue to be implemented until visualization at all the facilities is accomplished. As for the telemetry system, PRASA's priority is implementing it first at the WSTs and WPSSs, WWPSs, and then the WWTPs and WTPs.

4.3 Buried Infrastructure

Although buried infrastructure (i.e., water meters, water transmission and distribution pipes, buried valves, sewer trunks and collection pipes, and manholes) was not inspected, this section discusses indirect indicators of the condition of the buried infrastructure. PRASA continues to invest in developing and updating its GIS database to better control, record, and manage its buried assets. Also, PRASA slowly continues with its buried infrastructure R&R program, mainly managed and implemented by the Regions, and as their assigned budget allows. R&R of distribution (water) and collection (wastewater) pipes, which target pipe breaks and leak-prone areas, are identified by PRASA's Operational Areas and prioritized according to the severity of the problem. Production water meter replacements are programmed and managed through PRASA's NRW Reduction Program, and the Customer Service Department manages customer meter replacements.

4.3.1 Water Meters

PRASA owns over 1.4M water meters ranging in diameter from 5/8 to 12 inches. PRASA continues its meter replacement initiative under the Revenue Optimization Program. As reported by PRASA, about 854,975 small meters (1-inch in diameter or less) and over 5,971 large meters (greater than 1-inch in diameter) were replaced between FY2009 and FY2025. However, due to PRASA's fiscal situation in the past few years, the initiatives included in the Revenue Optimization Program have been slowed down, and meter replacements are proceeding conservatively. As a result, about 31,190 small and 103 large meters were replaced during FY2025. These replacements were mainly due to maintenance, theft, or special client requests.

Leveraging federal funding, PRASA is implementing a project to modernize its metering system, improve billings and collections, and reduce NRW. Additional information on the metering system and NRW activities and initiatives is included in Section 4.3.2 and Section 5.5.2.

4.3.2 Water Distribution System

Based on PRASA's GIS updated in June 2025, PRASA owns over 15,545 miles of water pipelines, including transmission and distribution pipes ranging from 2 to 72 inches in diameter. As in previous years, Arcadis did not inspect the water transmission and distribution system. However, it is reasonable to assume that a portion of the water distribution system will require structural repairs and rehabilitation to reduce leakage.

NRW is water that has been produced but is not billed to customers. However, not all NRW is due to water losses. NRW has three main components: unbilled authorized consumption, commercial (apparent) losses, and physical (real) losses. Combined, commercial and physical losses comprise the System's water losses. Unbilled authorized consumption comprises unbilled metered and unmetered consumption, including water used by PRASA (measured and estimated) for operational and internal purposes and firefighting. Examples include potable water service provided to PRASA's facilities, water used to wash and clean PRASA's tanks and sanitary pipelines, tanker trucks for communities with deficient water service, firefighter usage, etc.

Table 4-14 summarizes key water distribution system metrics since FY2021, including current levels of water production, water losses, and NRW, as reported by PRASA. PRASA's NRW levels have recently started to decrease in FY2022.

Table 4-14 Water Losses and NRW

Fiscal Year	Total Water Production (MGD) ¹	Water Losses	NRW
		(MGD)	(MGD)
FY2021	551	356	368
FY2022	519	328	339
FY2023	513	310	328
FY2024	513	322	338
FY2025	507	319	336
Difference FY2025-2024	-6	-3	-2
Cumulative Difference FY2021-2025	-44	-32	-32

¹ Includes a metering-error adjustment identified by PRASA in its water balance audits.

According to the FY2025 PRASA Fiscal Plan, PRASA aims to reduce water losses by successfully implementing the Water Recovery Office's (WROs) three main programs:

- **Master Meters:** This initiative includes the installation of water meters at critical facilities to measure water production accurately.
- **Pressure Management:** This initiative includes installing best practices across the transmission and distribution network.
- **Leaks Detection and Reduction:** This initiative will aid PRASA with identifying, prioritizing, and resolving major leaks detected in the system.

PRASA recognizes that reducing its NRW and water loss volume and, in turn, its water production will positively affect its operations, financial results (lower O&M expenses and higher revenues, for example), and sustainability practices. Therefore, reducing NRW continues as one of PRASA's top priorities and is highlighted in the 2025 PRASA Fiscal Plan.

In addition, PRASA's NRW office continues to focus on refining the validity and credibility of the data of the annual water audits and reducing NRW by, among other measures, continuing the Revenue Optimization Program, installing flow meters at PRASA facilities to measure more significant percentage of the authorized unbilled consumption and reducing the unmetered production by installing additional flow meters at WTPs to measure daily production to distribution flows adequately. PRASA aims to reach a metered reading of 98.2% of the water production by the end of FY2026. During FY2025, PRASA exceeded the expected goal of 96.0%.

4.3.2.1 Leak Monitoring and Control

Table 4-15 shows that leaks reported in FY2025 amounted to 67,489, and the average annual leaks per 100 miles of water piping for recent FYs. In FY2025, there was an increase of approximately 7% compared to FY2024.

PRASA's reported rate of leak occurrence continues to be extremely high compared to other utilities in the U.S. and Canada (average annual combined leaks and breaks per 100 miles are between 9.0 and 32.6, with a median of 18.0)¹⁰. Although this high rate is not surprising, given the existing infrastructure's age, size, complexity, and significant changes in elevations of the System, it still influences PRASA's NRW.

Table 4-15 Reported Leaks from FY2021 through FY2025

Fiscal Year	Total Annual Reported Leaks	Annual Leaks per 100 miles Using 15,545 miles of Water Pipeline
2021	56,831	375
2022	58,553	385
2023	61,102	401
2024	63,174	413
2025	67,489	434

Source: PRASA SAP (Commercial) Database.

Refer to the FY2025 ACA for additional details on statistics related to leaks and the backlog of repairs. Regarding the WSTs overflow issues, PRASA has been implementing continuous monitoring of WSTs across its Regions to help control and minimize overflow (water losses) occurrences as funds become available and repair prioritization allows. In addition, to help optimize the System's operation and reduce potential leaks through valves, PRASA has included its pressure regulator/sustaining valves in the IMP and has indicated that it is training its employees to carry out the necessary maintenance activities.

¹⁰ Source: 2024 AWWA Utility Benchmarking: Performance Management for Water and Wastewater.

4.3.3 Wastewater Collection System

PRASA’s GIS, updated in June 2025, shows that PRASA owns approximately 5,969 miles of wastewater pipelines. Although the wastewater collection system was not inspected, it is reasonable to assume that a significant portion of the system will require structural repairs and rehabilitation (replacement) to reduce inflow, infiltration, and overflow occurrences and address the impacts of damaging events, such as earthquakes and hurricanes.

4.3.3.1 Overflow Monitoring and Control

PRASA indicates that overflows reported in FY2025 were 24,831 (refer to Table 4-16). Note that data is unavailable for the frequency of overflows in (a) combined sewer systems compared to separate systems or (b) dry weather overflows (DWO) compared to wet weather overflows. DWOs are often caused by (a) insufficient cleaning and maintenance of the collection system, resulting in a buildup of roots or grease, restricting or blocking flow, or (b) pump station failures due to old or insufficiently maintained equipment, poor design, or lack of reliable backup power supply. Wet weather overflows indicate leaking sewers, stormwater connections to sanitary sewer systems, or undersized pipes or pump stations.

Table 4-16 also shows the average annual overflow occurrence per 100 miles of sewer. In FY2025, an average of 478 overflows per 100 miles, compared to 489 in FY2024 and 526 in FY2023, showing a continuous decrease over the last three FYs. Although Arcadis has not performed an independent analysis to pinpoint the causes of these fluctuations, the trends are noteworthy. From FY2021 to FY2024, reported overflows decreased by 15%. However, between FY2024 and FY2025, the reported overflows increased by 2%.

PRASA reported rate of overflow occurrence continues to be extremely high compared to other utilities in the U.S. and Canada, with combined operations (average annual overflows) per 100 miles between 0.5 and 6.8 overflows (with a median of 2.4)¹¹. However, this high rate is not surprising given the size and complexity of the System. Contributing factors to these high overflow rates could be aging infrastructure, damage from hurricanes, earthquakes, and inadequate customer use (i.e., illegal connections and discharges).

Table 4-16 Reported Overflows from FY2021 through FY2025

Fiscal Year	Reported Overflows	Annual Overflows per 100 miles Using 5,969 miles of Wastewater Pipeline
2021	28,769	467
2022	28,555	549
2023	27,888	526
2024	24,452	489
2025	24,831	416

Source: PRASA SAP (Commercial) Database.

Refer to the FY2025 ACA for additional details on statistics related to weekly overflows and the backlog of overflow repairs. PRASA continues to work towards improving its sewer overflow response time and metrics tracking across

¹¹ Source: 2024 AWWA Utility Benchmarking: Performance Management for Water and Wastewater.

its Regions. Also, PRASA continues with the Fats, Oils, and Grease (FOG) Program, which should continue to impact overflows positively. Studies on inflow and infiltration are also being conducted in Dorado, Río Grande, and Mayagüez. They will begin in Cidra, San Germán, and Las Piedras in the future.

4.4 Conclusions

Because of the size and complexity of the System, it is reasonable to state that the System will continue to require significant capital investments, continuous maintenance, and repairs. Also, it is likely that as the System ages and new compliance regulations are implemented, an additional O&M budget may be necessary to address maintenance, repairs, and compliance requirements. Nevertheless, the expected CIP investments are anticipated to mitigate the costs of replacing aging infrastructure.

Between March and June 2025, Arcadis conducted condition assessments at 180 facilities across PRASA's five regions. Of the inspected facilities, 72 (40%) were treatment (WTP and WWTP) facilities. The assessment included a visual inspection of the physical condition of the equipment and the facilities, process controls, and an evaluation of the regulatory compliance performance, O&M practices, staffing, and training. Tables 4-17 and 4-18 summarize the inspection's overall rating results. The data indicate that 37% of the facilities inspected in FY2025 are in Good condition, and 56% are in Adequate condition. However, 17% (16 of 95) of the facilities rated as Adequate are below 2.0. If unattended, the condition of these facilities could continue to deteriorate and fall to a Poor or Unacceptable rating in the future.

Seven percent of the facilities are in the Unacceptable to Poor range. The major concern is the facilities' physical condition. However, PRASA expects to address the identified deficiencies through the projected inflow of federal funds, supplemented by appropriate contributions from its internal resources to meet its needs. In addition to the physical condition, the Staffing and Training criterion impacts the overall condition of the facilities. This criterion was mostly affected by the ongoing personnel turnover and the need for certified operators and other support staff for the treatment facilities.

Table 4-17 FY2025 vs. FY2024 Dams Condition Inspection Results Summary

Asset Category	Unacceptable		Poor		Adequate		Good		Total	
	FY2025	FY2024	FY2025	FY2024	FY2025	FY2024	FY2025	FY2024	FY2025	FY2024
Dams	0	0	3	4	5	4	0	0	8	8

Table 4-18 FY2025 vs. FY2024 Asset Condition Inspection Results Summary

Asset Category	Unacceptable		Poor		Adequate		Good		Total	
	FY2025	FY2024	FY2025	FY2024	FY2025	FY2024	FY2025	FY2024	FY2025	FY2024
Water Treatment Plants	0	0	0	0	45	43	3	11	48	54
Wastewater Treatment Plants	0	0	8	4	16	21	0	1	24	26

Asset Category	Unacceptable		Poor		Adequate		Good		Total	
	FY2025	FY2024	FY2025	FY2024	FY2025	FY2024	FY2025	FY2024	FY2025	FY2024
Wells	0	0	1	2	4	13	15	5	20	20
Water Pump Stations	0	0	1	4	11	13	18	13	30	30
Water Storage Tanks	0	0	0	1	10	14	20	15	30	30
Wastewater Pump Stations	0	0	0	4	9	12	11	4	20	20
Total	0	0	13	19	100	120	67	49	180	188
Percent of Total	0%	0%	7%	10%	56%	64%	37%	26%	-	-

Comparing the assessment results by asset category with those of the FY2024 condition assessment for treatment plants (WTPs and WWTPs), the FY2025 assessment results reveal that WTPs maintained a steady overall score, and WWTPs had a slight decrease in the overall score of 0.1. Furthermore, there were positive changes observed in the overall rating for Dams and the ancillary facilities Wells, WPSS, WSTs, and WWPSs.

5 O&M Practices and Strategic Plan

5.1 Introduction

Arcadis assessed the adequacy of PRASA's O&M practices, benchmarked O&M budgets, and obtained information from PRASA departments on implementing key operational and strategic initiatives. Arcadis used the information and facility observations obtained through the asset condition assessment efforts presented in Section 4 to develop this section. A summary of the O&M highlights, O&M costs (benchmarked against other industry utilities), and PRASA's Strategic Plan, programs, and operational initiatives are included in this section.

5.2 Facility Operation & Maintenance

Noncompliance with treatment parameters occurred at several facilities (WTPs and WWTPs) due to factors such as missing or outdated versions of O&M and equipment manuals, critical components being out of service, inadequately labeled or color-coded pipes, infrequent jar tests, and poor condition of security fences, access roads, and lighting. Additional issues included insufficient security and NPW systems, challenges with ground upkeep, lack of EGUs to maintain operations, absence of potable water flow meters, inadequate overall appearance, insufficient safety measures, inconsistent process control of residual chlorine levels, and poor equipment maintenance.

PRASA should consider operational procedure improvements like standardization of processes and providing more tools and training to operators on process controls and actions to facilitate and improve plant operations and performance, and optimize O&M expenses. Also, including new process control equipment and system automation would benefit PRASA, given that operators continue to depend on manual operation for several processes. There is also room for improvement concerning prioritization, scheduling, and execution of corrective and preventive maintenance activities for optimizing and strengthening the system.

Despite all the challenges faced by PRASA in recent years, most of the facilities have been brought to operational status and continue to serve their intended purpose of providing potable water supply and treating the wastewater. However, it becomes imperative that projects and operational actions necessary to address the damages and improve conditions are implemented to guarantee safe drinking water production and wastewater treatment in compliance with applicable regulations. PRASA anticipates adequately addressing the identified deficiencies using projected inflows of federal funding, with appropriate supplemental contributions from internal PRASA funds.

5.3 Operation & Maintenance Costs

PRASA continues to improve efficiency by strengthening management controls, reducing O&M costs, and implementing targeted operational programs and initiatives.

PRASA's FY2025 O&M expenses preliminary projection for the water and wastewater systems (combined) were approximately \$832.0M (as of June 2025), of which \$758.3M (91%) are directly related to the System's O&M. The remaining \$73.6M are related to commercial activities and provision of customer service, including but not limited to staffing and operation of customer service offices islandwide; meter reading; connection and disconnection services; invoice preparation, printing, and distribution; and customer service call centers, among others. PRASA estimates that during FY2025, approximately 73% of its System's O&M budget (\$553M) was allocated to the water system and

the remaining 27% (\$204M) to the wastewater system. Estimated costs per million gallons (MG), per customer account, and per 100 miles of pipe for combined utilities' operations are summarized in Tables 5-1 and 5-2. A comparison to benchmark values is also provided.

Table 5-1 PRASA FY2025 O&M Water System Budget Benchmarks

Performance Indicator	FY2025 PRASA	2024 AWWA Benchmark Median ¹
Cost per Account ²	\$436	\$486
Cost per MG Processed ³	\$3,058	\$2,787
Cost per 100 miles of pipe ⁴	\$3.6M	\$3.2M
Total O&M System FY2025 Results	\$553M	-

¹ Source: 2024 AWWA Utility Benchmarking: Performance Management for Water and Wastewater. Values are rounded.

² Based on the total accounts at the end of FY2025 of 1,269,637 water accounts.

³ Based on FY2025, total water production and distribution of approximately 496 MGD of potable water.

⁴ Based on 15,545 miles of water pipeline obtained from PRASA's GIS Database.

Table 5-2 PRASA FY2025 O&M Wastewater System Budget Benchmarks

Performance Indicator	FY2025 PRASA	2024 AWWA Benchmark Median ¹
Cost per Account ²	\$260	\$415
Cost per MG Treated ³	\$2,418	\$2,785
Cost per 100 miles of pipe ⁴	\$3.4M	\$4.0M
Total O&M System FY2025 Results	\$204M	-

¹ Source: 2024 AWWA Utility Benchmarking: Performance Management for Water and Wastewater. Values are rounded.

² Based on the total accounts at the end of FY2025 of 786,100 wastewater accounts.

³ Based on FY2025, the total treatment of an estimated 232 MGD of wastewater.

⁴ Based on 5,969 miles of wastewater pipeline obtained from PRASA's GIS Database.

5.3.1 Chemical Expenses

In FY2025, chemical-related expenses constituted one of PRASA's largest operating expenditures, totaling nearly \$78M. To address this, PRASA has implemented non-capital-intensive initiatives, such as enhanced procurement strategies and improved chemical handling practices, aimed at reducing overall chemical costs.

Despite these efforts, rising costs for chemical production and increasingly stringent water quality compliance requirements have largely offset any potential savings. PRASA recognizes that the recent surge in chemical costs is primarily driven by external market factors, such as supply and demand dynamics, which are beyond its direct control.

In response to these challenges, PRASA remains committed to exploring and evaluating alternative solutions for chemical usage across its system, with the goal of identifying further opportunities for cost optimization while ensuring continued compliance with water quality standards. PRASA hired a technical consultant to evaluate the

chemical dosing process and identify opportunities for improvement. The potential benefits of this initiative cannot be determined at this time.

5.4 Department Updates and Regional Operation & Maintenance Highlights

Arcadis conducted meetings with key PRASA department directors and other personnel to obtain an update on the various initiatives and activities during FY2025, except for the Compliance Department, as Arcadis was unable to schedule a meeting with the Department Director, notwithstanding multiple tries. A summary of the information provided by PRASA during the discussions is detailed in the following sub-sections.

5.4.1 Department Updates

5.4.1.1 Corporate Security and Emergency Management Directorate

The Corporate Security and Emergency Management Directorate continues to monitor KPIs internally to measure the effectiveness of its operations. These KPIs include metrics for security and facility inspections, emergency preparedness and drills, and operational responses and service continuity. Regular review and tracking of these indicators guide the Directorate's efforts to maintain safety, readiness, and compliance across PRASA's facilities.

Ongoing initiatives in FY2025 demonstrate the Directorate's focus on expanding and optimizing security and emergency management programs. The Integrated System for Security (ISS) continues to be rolled out across additional facilities, with additional installations to proceed following completion of procurement processes and allocation of funding. Pressure meters have been installed at the La Plata Dam, and operational protocol alerts regional staff when significant changes in hydraulic pressure are detected. The installation of chlorine gas alarms at several facilities is progressing. Also, the transition from gas chlorine to liquid chlorine is being prioritized to enhance safety and incident prevention.

A contract is in place for the distribution of water cisterns during service interruptions, with all necessary equipment currently stored and ready for deployment. A private security provider remains contracted to deliver ISS services, and a conceptual security design employing loudspeakers and cameras has been developed to deter unauthorized access to PRASA facilities. In response to ongoing diesel theft incidents at facilities, further improvements to facility security are under consideration. Evaluation of mobile security systems for facilities lacking fixed ISS coverage was completed, resulting in proposals for equipment implementation. These mobile systems are deployed during emergency events such as hurricanes.

Although updating security camera plans was not a focus this year, Directorate staff assisted the Infrastructure Department by providing input and support to enhance capital project outcomes. The Early Warning System, developed in partnership with PREPA, continues to be implemented in PRASA's reservoirs, with Carraízo, La Plata, Cidra, and Las Curías Dams now equipped with fiber optics, cameras, piezometers, accelerometers, and other visualization equipment. Establishing operational thresholds for each facility remains a focus to ensure timely emergency notifications.

Regular updates to emergency plans and risk analyses for water systems reinforce emergency preparedness. A third-party contract was awarded to improve compliance in marking PRASA infrastructure for excavation notices. The digitalization of entry and exit records for visitors and vehicles at PRASA facilities is ongoing, as are efforts to

upgrade security systems in the central building. While internal generator GPS installations are delayed, rented generators are equipped with the required trackers. Employees received training and participated in drills to prepare for active shooter incidents, and proposed improvements to the COE (*Centro de Operaciones de Emergencias*, by its Spanish acronym) in the central building, including dormitories, showers, and laundry facilities for executive staff, remain pending due to funding constraints.

The America's Water Infrastructure Act (AWIA) 2025 review of the 2020 Risk and Resilience Analysis and ERPs was completed for PRASA's five large drinking water systems. PRASA will update Resilience Analysis and ERP for medium and small drinking water systems to ensure AWIA compliance in 2025–2026. Instead of installing GPS trackers on tanker trucks, real-time monitoring of distribution routes will be accomplished using employee clock-in via mobile devices, which record location data for compliance with public service commission requirements. The Power BI database remains in use, supporting further improvements and automation of research reports, including incident tracking, reservoir data, and customer impact. Annual drills such as Caribe Wave (tsunami) and ShakeOut (earthquake) were successfully conducted, with additional testing of alarm systems planned. Emergency evacuation plans, including maps and facility schematics, continue to be updated and reviewed with supervisors each year.

New initiatives in FY2025 include annual hurricane drills in collaboration with the Veterans Hospital, digitalization of “Conduce” documents for tanker truck hauling and filling, and annual reviews of the Operational Emergency Plan and gas chlorine evacuation drills. Early preparation for the next hurricane season has also begun.

The impacts on the Directorate in FY2025 reflect ongoing resource constraints, particularly in expanding technological infrastructure for ISS across the island, despite progress made with operator contracting. The complexity of organizing drills and updating emergency plans remains a challenge, but desired outcomes have been achieved through diligent planning and collaboration. Limitations in water hauling services during emergencies have been mitigated by improved equipment availability and municipal collaboration. The presence of firearms among employees at PRASA facilities poses an additional safety risk. As a result, management is evaluating initiatives to strengthen the detection and prevention of firearm-related incidents.

5.4.1.2 Customer Service

PRASA's Customer Service Department continues to focus on measuring and implementing metrics to improve invoicing, collections, billing adjustments, customer service complaints, service interruptions, service quality, actual meter readings, and waiting time in commercial offices and call centers.

PRASA is currently operating 12 commercial offices, including the Vieques and five ORANF offices (*Oficina de Recuperación de Agua No Facturada*, by its Spanish acronym) for a total of 17. The visits can be scheduled by appointment or walk-in. PRASA has a mobile phone application in which customers can report service interruptions and/or pay their bills. A new telephone switchboard was implemented in PRASA this year. The Customer Service and Systems and Information Technology (IT) Departments are still evaluating all the functions available to ensure compatibility with the call centers. Once this evaluation is done, PRASA has the option to release a new Request for Proposal (RFP) with or without including the telephone switchboard. Currently, PRASA has two private call centers contracted to assist with customer calls, whose contracts are in place until June 2026. In November 2025, PRASA will decide which route to take.

The Customer Service Department continues to measure KPIs set for measuring actual consumption at each water meter instead of estimating the quantity. In addition, PRASA plans to replace all the water meters in Puerto Rico with ultrasonic technology. PRASA has signed contracts with two proponents and performed two pilots, which were evaluated. The official award notification was announced in December 2024. Full deployment shall commence

during the next FY. This initiative will enable more accurate water consumption readings and reduce the number of estimated consumption invoices, as more than 85% of the current meters have exceeded the 10-year lifespan. As the department awaits the implementation of the AMI project, it continues to replace meters that have zero consumption or have reported claims.

As the department shifts its efforts into new projects, such as the AMI system, which will not require manual meter readings, the positions within the department may be restructured as the initiative is being implemented. The department is awaiting the final approval for the SOP Numbers 601 *Adjustment Procedure*, 603 *Connection Request, Reduction of Service Connection Diameter, Extraordinary Works, and Damages Caused by Third Parties*, and 608 *Payment Plans*. Also, other SOPs within the department will need to be updated to include the impact of AMI on Customer Service processes.

During the past several years, PRASA has worked with government accounts to reconcile outstanding balances and accelerate the collection of payments. As a result, government accounts (water consumption) are being read in separate routes and bimonthly throughout all the Regions. Additionally, the department has identified the top 20 governmental agencies with outstanding debts, and meetings are being conducted to ensure payment of these debts. Also, the Top 50 commercial clients are being read and monitored to ensure payment.

In efforts to collect more funds, in collaboration with the Legal and Finance Departments, Customer Service is identifying overdue debt accounts, since debts that remain unaddressed for more than five years become uncollectible. Interviews have been conducted with collection agencies, and two of them are being considered for a contract to manage this initiative. A plan must be developed to determine how many accounts need to be reviewed. The plan will need to be presented to the FOMB during the first quarter of 2026, before contracting the collection agencies.

Other initiatives Customer Service is implementing in FY2026 are:

- “Light” brigades: They are working with HR to classify this brigade from the operational areas to Customer Service to aid in the replacement of larger meters and other service orders.
- Continue to create new routes with commercial clients to increase Meter Reading KPI, therefore eliminating estimation.
- Using GIS, identify clients that are classified in the wrong category, such as only potable water users in areas with a sanitary sewer system.
- Implement ongoing surveys and feedback mechanisms to monitor customer satisfaction and identify areas for service improvement.
- Develop and enforce standardized protocols for all customer service interactions.
- Enhance and expand the range of services available through PRASA's chatbot, enabling customers to complete more transactions and receive immediate assistance on a 24/7 basis.
- Evaluate and streamline payment channels (online, in-person, kiosks, etc.) to improve convenience, reduce transaction costs, and increase adoption of digital payments.
- Launch a formal recognition and incentive program to acknowledge outstanding performance among customer service employees, fostering motivation, retention, and a culture of excellence.

5.4.1.3 Purchasing and Logistics

The main advances, challenges, and ongoing projects of PRASA's Purchasing and Logistics Department are presented below, all related to the management of purchases, logistics, and operational resources within the organization.

In terms of KPIs, weekly monitoring is currently conducted for the average days required to approve order requests (SOLPLE, *Solicitud de Pedido by its Spanish acronym*) and for the complete purchasing process. However, other KPIs—such as the average days from SOPLE to purchase order (PO) generation, PO approval time, tracking of emergency orders, and the registration of biddings and reserves—are not yet implemented but have been identified as priority areas to strengthen process control and transparency.

Regarding purchasing processes, an after-hours approval system for emergency purchases has been implemented, with nine staff members rotating weekly alongside the Purchasing Manager to ensure operational continuity and prompt attention to critical situations outside regular hours. Improvements have been completed in reserve management using SAP Fiori, and four contracts—two with Usalco and two with Accutech—have been awarded following a bidding and evaluation process based on forecasts, in addition to maintaining four active contracts related to the chlorination system. The IT Department regularly updates SAP R/3 to optimize efficiency and reporting, while logistics maintains the automatic cancellation process of reserves after eight days, releasing unused funds and improving financial management.

During FY2025, the department has faced the challenge of high costs for bisulfite and permanganate due to increased federal rates. To mitigate this impact, joint efforts are underway with the Legal Department to modify contracts and include specific clauses, as well as to gradually purchase these supplies in order to optimize inventory management and control expenses. The acquisition of alumina is also carried out on demand according to specific operational requirements. Additionally, the review and optimization of SOPs for *Emergency Purchases* (SOP PR-CYL-399) and *Purchases Without Bidding* (SOP PR-CYL-400) remain pending, in accordance with Act 73 and in coordination with the Vice Presidency of Administration. The analysis of bidding regulations and the future implementation of the bidding registration in SAP are also in progress.

In logistics, between 2021 and 2025, significant Warehouse Management (WM) and modernization projects have been completed in the Regions of Aguadilla, Trujillo Alto, Ponce, Arecibo, Humacao, Guayama, and Bayamón, and more recently in Coamo, Yauco, San Germán, Mayagüez, and Fajardo. The cylinder tracking project was executed in the Puerto Nuevo WM, and the Fiori reserve system was implemented, enabling users to view material costs and descriptions, receive goods, confirm transport orders, and create manual orders. Collaboration with the Finance Department enabled inventory completion in the Aguadilla, Utuado, Carolina, and Coamo WMs. Infrastructure improvements have been finalized, such as the repair of sliding doors in the Ponce WM, the roof replacement in the Carolina WM, the adaptation of the yard in the Yauco WM, and the acquisition of forklifts for various facilities. The review form AAA-35, *Request to Create, Modify, or Delete Material Codes*, was completed and became effective on April 8, 2025. This form standardizes and optimizes control over material code management, facilitating traceability, information updates in systems, and alignment with best inventory practices.

Additionally, SOPs have been key instruments for continuous improvement, standardization, and operational control. The development and implementation of these SOPs have occurred in several phases: beginning with the identification of critical processes and creation of regulatory documents, followed by staff training, and finally, ongoing procedure review and updates. Currently, the status of each SOP is as follows: SOP PR-CYL-311 on *Additions, Removals, and/or Changes in the Material Master* has been active since April 8, 2025, for inventory movement control and traceability; SOP PR-CYL-312, regulating *Dispatch of New and Used Equipment or*

Instruments in SAP PM, has also been active since that date, standardizing asset management and registration. SOP PR-CYL-319, establishing the *Cycle Counting in the Authority's Warehouse*, is in the training phase, preparing logistics teams for efficient and systematic inventory verification. SOP PR-CYL-329, focused on the *Disposal of Small Tools and Safety Boots*, is under development, adapting to best practices and asset management needs. Finally, SOP PR-CYL-450, regulating the *Receipt, Inspection, and Confirmation of Materials*, is under review by the Management Systems Office, aiming to strengthen quality controls and provide conformity of received materials.

Currently, the organization of the Toa Alta and Caguas WMs is in progress, with an estimated duration of three months, and Toa Alta WM is expected to be completed within the current FY. Six WMs are pending intervention: Caguas, Carolina, Guaynabo, Cayey, Vieques, and Utuado, of which two (Caguas and Carolina WMs) have budgets to start in FY2026, and funding is being managed for the others, aiming for full coverage across the island. The security camera installation project is underway, coordinated with Corporate Security and Emergency Management Directorate, and the necessary funds are available to complete it in 2026. Regarding technological improvements, SAP updates are being made to allow the inclusion of images in material requests, which will improve quotation accuracy; however, implementation is subject to budget availability and is expected to begin after December 31, 2025. Additionally, the acquisition of personal protective equipment, such as safety boots and new forklifts, is underway to reinforce warehouse safety and operational efficiency, as well as the coordination of bidding for surplus and recyclable materials.

Among new initiatives and programs, the development of a new material catalog stands out, scheduled for FY2026, which will enable more efficient and modern resource management. System improvements are being implemented in three phases, including electronic notifications, alerts for orders nearing expiration, and notifications of expired orders, all integrated into the SAP platform. The penalty system is being reviewed and optimized to provide fair and effective application, and on-site cylinder verifications for dismantling are being scheduled according to established procedures.

Finally, in terms of HR, there are several vacancies in key areas, including a warehouse guard in Guaynabo, a warehouse guard in Caguas, a warehouse guard in Puerto Nuevo, two warehouse guards in Trujillo Alto, a service supervisor in Puerto Nuevo, a service supervisor in Trujillo Alto, two drivers in Puerto Nuevo, two TSO in Puerto Nuevo, a general assistant in Puerto Nuevo, a shift officer, a contracted service officer, two materials service officers, a purchasing analyst in the East Region, four purchasing analysts in the Metro/Headquarters Region, and a purchasing supervisor in Metro/Headquarters. Additionally, there are positions in the West and North Regions pending coverage due to retirements or internal relocations. The existence of these 26 vacancies is mainly attributed to employees resigning in search of better salary conditions in the labor market. This situation demands the strengthening of recruitment and talent retention strategies to ensure operational stability and the achievement of departmental objectives.

5.4.1.4 Human Resources

At the end of FY2025, PRASA had a total staff headcount of 4,289. Staff decreased by 4.8% from FY2024 to FY2025; therefore, staffing limitations remain one of the greatest challenges to achieving efficiency. As of November 20, 2025, there were 1,600 vacant positions, not including interim roles. PRASA prioritizes internal candidates before recruiting external personnel. Approximately 126 employees continue to benefit from the Voluntary Pre-Retirement Program (Act 211-2015).

Key vacancies include licensed operators, operator assistants, substitute operators, maintenance staff, TSOs, microbiologists, laboratory technicians, light equipment personnel, potable water technicians, supervisors,

maintenance supervisors, system managers, and purification mechanics. Technical service operators, electromechanics, sludge dewatering operators, sanitary sewer technicians, housekeeping staff, TAs, managers, supervisors, administrative assistants, and preventive maintenance coordinators are also among the positions facing persistent shortages. Additional gaps exist in technical management, maintenance teams, compliance specialists, pipefitters, EITs, and various support roles.

PRASA's HR Department is currently focusing on the following main objectives:

1. Achieving PRASA's headcount goal of 4,700 FTEs by FY2029.
2. Understanding and implementing the requirements included in the series of acts that have been passed in recent years related to labor relations.
3. Adjusting employee salary compensation to align with the labor market, through a Compensation and Classification Study currently underway.
4. The recruitment process remains ongoing due to persistent challenges in employee retention. New management positions were posted during FY2025. The most difficult roles to fill islandwide are electromechanics, operators, warehouse personnel, and fleet services coordinators. Recruitment for warehouse positions is particularly challenging due to the required experience and education, while salary dissatisfaction compared to current market rates also affects recruitment efforts.
5. To promote employee retention, a continuous education program was developed in collaboration with the Project Management Office (PMO); in-house training modules and staff qualifications are regularly updated. A Compensation and Classification Study is currently under review, with the necessary improvements being incorporated. PRASA continues to apply the pay scales approved in FY2023, except for appointed employees, and improvements in recruitment and retention are expected following these changes. The recruitment technology "Smart Tool" was determined not to be viable due to the excessive effort required to update the information.

The Employee Orientation and Service Program (*Programa de Orientación Social al Empleado (POSE)*, by its Spanish acronym) provides active area visits, employee orientation, and continuous support and guidance, particularly during emergencies. Active personnel have access to services offered by social workers and psychologists as needed. Additionally, an initiative to digitalize POSE services is underway, which includes text message appointment confirmations, a form to coordinate visits, and enhanced case information gathering.

Ongoing initiatives and programs by the HR Department include:

- Receiving resumes via email and, after careful review, extending opportunities to applicants who meet the requirements for the position. Employment fairs at Regions and universities are under consideration to attract candidates for the most challenging positions to fill.
- Continued use of the My Portal App, which allows employees to view their balances, W-2 forms, and other information. Additionally, SAP integration with My Portal App has also been completed.
- Remote work is not authorized except in justified cases. Written authorization signed by both the HR Director and the President is required for remote work on a limited basis.
- Two main technological applications were developed and implemented under the SAP Fiori system in collaboration with the IT Department. HR CaseLink centralizes information and cases by discipline across all regions, while HR Legal Case replaces the previous "HR: Al día" tool for managing employee transactions. These implementations have improved interregional communication, automated HR processes, and streamlined HR operations. For more details, refer to Section 5.4.1.5.

New initiatives by the HR Department include:

- An ongoing initiative to enable the visualization of interim position replacements in HR CaseLink, in collaboration with the Vice President of Administration, the Vice President of Strategic and Corporate Planning, the PMO, and the IT Department.
- Development of new training courses for the schools of supervisors and operators to help increase their license category.
- Consideration of additional training courses on topics including cannabis license use, workplace harassment, and PRASA's dress code procedures.

5.4.1.5 Systems and Information Technology

The IT Department continues to drive digital transformation and operational improvements across PRASA by implementing strategic technology initiatives and supporting core business functions. During FY2025, the department prioritized a portfolio of key projects and programs, emphasizing service enhancements, modernization, and the adoption of new digital solutions despite notable challenges related to funding, integration, and workforce retention.

The following are the major accomplishments and ongoing initiatives of the IT Department:

1. **Manage Engine Service Desk:** The service desk platform is now fully operational, supporting IT, WRO, and Printing. The department is evaluating further enhancements to improve ticket management and user experience.
2. **Kronos Upgrades:** Progress continues in collaboration with the PMO and Finance Department, with approximately 40% of deliverables achieved. Preparations for cloud-based data migration are ongoing, and the eventual decommissioning of legacy time-tracking systems is planned for FY2026.
3. **Network Infrastructure Modernization:** The replacement of access switches and routers remains pending due to a \$2M funding shortfall. This upgrade is critical for sustaining network reliability across all PRASA facilities.
4. **Website Management:** The PRASA website (acueductos.pr.gov) has remained stable and resilient since recovering from several cyberattack incidents. Plans are underway to further improve performance, security, and user accessibility in the coming year.
5. **"Mi Acueductos" App – Phase 2:** The second phase of the client application is complete, enabling customers to manage accounts and make express payments. Ongoing enhancements are focused on the client portal's usability and functionality.
6. **GIS and SAP Platform Integration:** The integration project was successfully completed, providing unified access to both horizontal and vertical infrastructure datasets. However, the planned merger of Supervisory Control and Data Acquisition (SCADA) and GIS platforms has been delayed due to budget constraints.
7. **Call Center Modernization:** PRASA modernized its call centers by acquiring CISCO Call Center Manager and Contact Center Version 15, reducing reliance on external contractors and increasing capacity and efficiency.
8. **AMI-SAP-Qorder Integration:** The integration of automated meter infrastructure with SAP and Qorder is in progress, aiming to streamline billing data collection and work order management. Supporting procedures, information systems, and training workshops are in development. This project is delayed, pending an extension to the SAP contract.
9. **Client Data Validation:** The project to verify and update client contact information in SAP (email and telephone) has experienced delays and will continue into the next FY.

10. **HR System Enhancements:** Success Factor, a Software as a Service (SaaS) solution for employee evaluations, has been implemented. Integration of two additional data files with SAP R3 (enterprise resource planning system) is in progress. CaseLink (HR management software) will manage recruitment, salary adjustments, reporting, and Legal Cases (Legal management software) will manage legal documentation, and employee event calendars.

The following are new initiatives and programs reported by the IT Department:

- **Customer Portal Feature Expansion:** A new portal feature is under development to streamline document management, service orders, automated payment plans, and reporting, aiming to improve both efficiency and user experience.
- **Digitalization of Form AAA-27 “Control de Cambios de Equipos del Programa Integrado de Mantenimiento by its Spanish acronym”:** The department is developing a digital workflow for equipment change control, including evidence submission, SAP equipment linking, and approval processes.
- **SAP Platform Migration:** PRASA is preparing to acquire updated SAP platform hardware as part of its Technology Infrastructure Renewal Plan.
- **Employee Assistance Program Case Management:** Work is underway to implement a secure, online case management platform that meets legal and cybersecurity standards.
- **SAP Fiori App Implementation:** The SAP Fiori app will centralize recruitment and interim position management, with full rollout planned by FY2027.

Challenges and Impacts

- **Funding Constraints:** Limited funding has delayed several important infrastructure projects, particularly access switch and router replacements and system integrations.
- **Data Integration and Migration:** Ongoing complexities arise from the need to integrate new technologies and migrate data between legacy and modern systems.
- **Change Management and User Adoption:** The adoption of new technologies continues to require significant change management efforts and ongoing user training.
- **Employee Recruitment and Retention:** High turnover and difficulty in recruiting skilled personnel have affected project timelines. Planned adjustments to the Compensation Plan are expected to improve retention and strengthen PRASA's competitive position in the labor market.

5.4.1.6 Communications

PRASA's Communications Department continues to focus on improving the utilization of PRASA's website and social media platforms such as Instagram, Twitter, and Facebook. Currently, PRASA is evaluating the alternatives to improve the use of YouTube and LinkedIn due to these platforms' focus on different audiences. The quick availability of information and images from social media also allows PRASA to respond faster and to interact with customers. PRASA continues using social media as an educational platform by constantly sharing information on treatment processes, its infrastructure, project updates, and initiatives. Social media platforms are also being used to share information on repair status (including pictures of crews working), service interruption, construction projects and improvements, special events, personnel recognitions, official campaigns, etc., to keep the public informed of ongoing matters and resolution of operational situations. Press conferences and other events are also shared on social media and the website. Communication material can be produced or revised by the Central Communication

Department for publication by the Regions. Regional Communication Directors are responsible for developing the content for local needs, while Headquarters develops content for the Metro Region in addition to PRASA's general communications.

The Communications Department, in coordination with the IT Department, continues to update and improve PRASA's website, which includes an investor relations section, Consent Decree information, press releases, the virtual office, information related to seasonal events (e.g., water service interruptions, hurricane season, water conservation, etc.), water reservoir levels, and educational material, among others. There is an interactive map with information on the Infrastructure Department CIP projects. There are initiatives to increase social media publications and community outreach.

Various key positions related to the management of the department, their educational program, and the webmaster position are pending to be filled in FY2025.

The Communications Department's ongoing initiatives include the following:

- The internal newsletter *Aljibe*, formerly known as *Boletín Digital*, was modified to provide information about PRASA's trajectory during its first 80 years of creation. It was distributed in digital and printed form to the regional offices. The goal is to have it issued monthly.
- The media tour for infrastructure projects has continued to be used. This tour collaborates with the regional communications directors and the Infrastructure Department to promote CIP projects through social media, radio, TV, and the press.
- Educational events are in person unless the school or center asks for an online course. PRASA's participation in public events is ongoing.
- The Water Conservation Program continues to be used, and educational campaigns (e.g., educational brochures) related to grease traps and clean pipelines are ongoing and available at PRASA's website.
- A recognition program continues to promote different departments throughout PRASA. The Department, in collaboration with the HR Department, distributes internal communications related to employee retirements and recognitions.
- Assist all departments with campaigns in addition to campaigns for droughts, hurricane season, implementation of the Lead and Copper Rule (LCR) service line inventory, etc.
- Collaboration with nonprofit organizations continued to be an important initiative. PRASA participated in various events during FY2025, including an activity with *Comedores de la Kennedy* in the Metro Region. Other activities were conducted with the nonprofit organizations *Hogar Cariño* and *Portal de Amor* (a child home). These activities were conducted in collaboration with PRASA's Regions.
- The Communications Department entered into an agreement with an external communications agency to further assist in the development of initiatives and activities.
- Participate in *Feria Fortaleza para Puerto Rico* when Fortaleza selects the host municipality. During this activity, PRASA provides a water truck to distribute potable water and perform public outreach activities, including educational sessions for the attendees. This initiative is being transformed into *Cumpliendo Contigo*, which was conducted in FY2025 and focuses on communicating the status of PRASA's projects.
- Agreements were established for summer internships with students from the Polytechnic University of Puerto Rico.

- The Annual Tap Water Taste Challenge at Plaza Las Américas Mall was held in FY2025, and recognition was given to the contestants. There were two awards, the People's Choice and the Judges' Award. A tapping challenge and recognition were also conducted during the FY.
- There is a drawing contest where family members of PRASA's employees can participate.
- The Communications Department has assisted in providing outreach guidance for the Lead Service Line Inventory and Lead Replacement Program, and support to the Presidency in press releases and media coverage.
- PRASA participated in the AWWA Annual Conference and Exposition that was conducted in June 2025 in Colorado, U.S. This activity allowed PRASA to interact with water professionals, attend presentations, and get insights into sector initiatives and activities.
- PRASA's Communications Department is actively engaged in communications during service interruptions.

Additional initiatives that were in the planning phase during FY2025 or will continue to be developed include the following:

- Rebranding of PRASA, including its logo, visual arts, and creation of a new image. This includes the execution of the brand book that will be used in media communications (digital/social media, printed material, etc.).
- Implement the use of a digital form to document the Communications Department metrics. Also, it is planned to have a service desk available.
- Continue recognizing PRASA's brigades and efforts on projects. It is a goal to continue communicating PRASA's infrastructure projects and improvements.
- Continue inventorying the Department's promotional and educational material and resources. For this initiative, support is to be obtained from the IT Department.
- Increase the publication of educational material on social media.
- Increase the use of the YouTube channel for further outreach and communications, and continue using LinkedIn, for which an improvement strategy is underway.
- Continue conducting media tours and uploads to social media, in addition to other communication media, of videos showing activities such as the launching of new projects and updates. Execute a whole media plan using different media (press, TV, radio, etc.).
- Continue providing updates on social media, such as service interruptions and updates, and improve messaging during emergencies, such as water outages.
- Provide media communications training to regional directors and department directors who will interact with internal employees and potentially with the media.
- Conducting service fairs for community outreach and the use of water trucks during PRASA's activities. Use of additional water trucks, possibly two, during community outreach service fairs.
- Create educational campaigns, also known as content buckets, to provide information to the community about PRASA's programs and initiatives.
- It is planned to adopt a school and to provide items for the return of students to the academic semester. Conduct public relations activities at schools to provide continuity to PRASA's efforts.
- Assist Customer Service and Infrastructure Departments with campaigns for the New Meter Replacement Project, as needed.

- Further evaluate the need for positions in the Department, such as a webmaster, a Technical Advisor in communications, and a Public Relations Officer for the Regions (North, South, and West).

5.4.1.7 Compliance

No update is available for the Compliance Department, pending a meeting with the Department Director or designated representative.

5.4.1.8 Legal

The Legal Department, responsible for providing important support and guidance within PRASA, oversees a wide array of legal matters and initiatives within the organization. The department receives an average of four lawsuits per month, most of which are related to falls involving water meters with missing lids. Notably, approximately 90% of these claims are covered by insurance and public liability policies. Investigations are carried out externally by contracted law firms and are conducted jointly with the Insurance and Customer Service Departments. Litigations are continuously attended throughout the year, with 32 hearings held weekly, all of which are performed virtually. If the client needs access to a computer, assistance is offered at PRASA's Administrative Hearings Office, and the Customer Service Department reviews the investigations.

Legal support also includes assistance to the Compliance Department, particularly in modifications to the 2015 USEPA Consent Decree and in the ongoing monitoring of the 2006 PRDOH Drinking Water Settlement Agreement, which is directly linked to the Infrastructure Department's prioritization program. Various legal tasks such as document review, handling of RFPs, bidding challenges, and drafting communications are actively ongoing across departments. Additionally, efforts are directed toward the allocation and management of funds, compliance clauses, and interinstitutional agreements.

Regarding staffing, there are existing needs and vacancies, although short-term recruitment plans are currently on hold. The department aims to document its needs thoroughly, considering potential changes in administration and variable turnover rates for vacant positions. Legal services are facilitated through eight external contracts with multiple law firms, an economic expert, and various entities providing legal advice to the Legal Guidance Office of PRASA.

On the legislative front, the department is involved with laws such as Law 207-2024, which amends Law 33 (June 27, 1985) to restructure the terms under which PRASA addresses customer bill disputes regarding water and sewer services. The Legal Department also oversees the Office of Document Control, which manages the SOPs for all of PRASA and is currently approving procedures reviewed and updated by different departments.

The department is currently facing several challenges. Recent changes to the contracting process, including new approval requirements, have increased the time needed to process contracts. Additionally, the department is understaffed, making it difficult to handle the volume of requests from other departments that rely on Legal's review. As a result, there are not enough personnel to address requests according to their priority.

5.4.1.9 Infrastructure

PRASA's Infrastructure Department continues to oversee and manage PRASA's CIP. The Infrastructure Department also manages the asset damage assessments and estimates for claims negotiations with PRASA's insurance company and FEMA. Currently, the Executive Director for Infrastructure, in coordination with PRASA's EMT, has contracted four PMCs to assist with the CIP implementation. Refer to Section 6 for additional details.

5.4.1.10 Strategic and Corporate Planning

The Strategic and Corporate Planning Department at PRASA oversees and manages the PMO, IT Department, Training and Continuing Education Program, Customer Service Department, and the WRO. The Department's current priorities include supporting the WRO and the NRW reduction efforts, strengthening the PMO, and driving the implementation and renewal of PRASA's Strategic Plan.

5.4.1.10.1 Strategic Plan

PRASA's latest Strategic Plan is for the FY2021-2025 period. As of FY2025, a draft of the new Strategic Plan for FY2026-2031 is in the final approval stage and will outline a renewed vision and strategy for the next cycle. The new PMO leader will oversee the management and execution of this plan. In parallel, PRASA is redesigning its KPI tracking methodology in Power BI to align with updated strategic goals. KPI results for FY2025 were unavailable, so a year-to-year comparison could not be included in this report.

5.4.1.10.2 Project Management Office

The PMO is responsible for ensuring the successful delivery of measures outlined in the 2025 PRASA Fiscal Plan and key internal strategic and operational projects, including metering optimization and physical water loss reduction. In FY2024, the PMO's organizational structure and processes were established, and an external contractor was engaged to assist with office development. This contract was extended through FY2025, providing time for PRASA to recruit and establish a fully internal PMO team. In early FY2025, the PMO and HR Department focused on reclassifying roles and finalizing the internal structure, with the goal of transitioning to a fully internal PMO by FY2026.

5.4.1.10.3 Water Recovery Office

The WRO leads NRW reduction and operational optimization initiatives across PRASA. Its goals include supporting operational efficiency, optimizing revenue, targeting cost reductions, prioritizing investment, and standardizing practices across all regions. NRW reduction remains a top priority and is integrated across all departmental activities. In the first quarter of FY2025, the WRO and HR worked together to reclassify roles and set up internal structures, aiming for the WRO's project management to be fully managed in-house by FY2026, with only fieldwork outsourced. For further details, see Section 5.5.2.

5.4.1.10.4 Customer Service Department

Throughout FY2025, the Customer Service Department focused on four strategic pillars to optimize revenue:

1. **Billing Accuracy:** Completed a pilot and initial deployment of the AMI project, placing the first meter purchase order in FY2025, despite a procurement appeal from a non-selected competitor.
2. **Collections:** Increased efforts to collect overdue accounts through contracted collection agencies.
3. **Client Experience:** Upgraded customer applications, expanded call center use for reporting and payments, and piloted a chatbot for improved service.
4. **Organizational Transformation:** Ongoing departmental reorganization and continued AMI project expansion. Currently, the first meter's purchase order was placed, and the procurement process for the meter installation was completed.

More information is available in Section 5.4.1.2.

5.4.1.10.5 Training and Continuing Education Department

The Training and Continuing Education Department remains focused on workforce development and capability building. In early FY2025, the Training and HR departments collaborated to reclassify roles and ensure the department is staffed with the required personnel to deliver operator training (WTP and WWTP), onboarding programs for new hires, and support for university and vocational school job fairs, promoting potential hires. More information is available in Section 3.2.5.

5.4.2 Regional Updates: Initiatives and Challenges

Meetings with five regional directors and the region's key staff were conducted to assess the progress of each region based on the established KPIs, impacts of the fiscal situation, the ongoing challenges, programs, and initiatives developed in FY2025, overall operational activities updates, and future improvement initiatives. The most common challenges among all Regions are listed below:

- The lack of personnel for O&M activities is mainly due to the workforce deficit caused partly by the population migration to the U.S. and the Voluntary Pre-Retirement Program. Efforts are focused on filling these vacancies. One of the greatest challenges that regional O&M groups experience is finding and keeping operators and electromechanics, among other vacancies.
- Although PRASA has installed remote access for many assets in the System, various telemetry systems are still pending to be installed to achieve full remote visualization of the water facilities. In addition, efforts have been focused on monitoring the WSTs remotely. Wastewater systems, in general, have limited remote visualization.
- Competing priorities, along with constraints in available funding and resources, present ongoing challenges to effectively address operational and R&R needs due to aging infrastructure.
- A shortfall in qualified employees has caused an increase in overtime costs and the contracting of external private staff; this represents a direct impact on the System's operations.

PRASA's efforts to maintain and/or reach compliance with DBP parameters (THMs, HAA5, TOC) are currently focused on operational adjustments. As a result of the implementation of SOPs and the Optimization Program, the interviewed Regions reported improvements in compliance with the DBPs requirements while recognizing that additional measures and capital investments may be needed. Also, the Regions continued their efforts to control costs and improve the System's optimization to the extent possible. Other programs implemented during previous FYs are proceeding slowly due to the current lack of personnel and funding, competing priorities, including reduction of sanitary sewer overflows (SSOs) and combined sewer overflows (CSWOs), NRW reduction, and Energy Consumption Reduction, among others. However, as described in more detail in Section 2, PRASA's fiscal situation looks promising and continues to improve. In addition, PRASA is receiving an inflow of federal funds to cover (with appropriate contributions from PRASA's internal funds) its CIP needs, allowing for a more robust infrastructure and an efficient and resilient System.

Other challenges specific to each operational region are important to note and summarized below.

- **West Region:** Water losses remain a concern in the region, despite repairs to transfer-related leaks. Measurement has improved through new control valves, pressure zone identification, and enhanced monitoring of pressure regulators. High-priority initiatives implemented across the region include identification of WPS procedures, enhanced telemetry communication, regulation of excessive pressure zones, and improved customer service. The percentage of telemetry installations remained unchanged, with efforts focused on

achieving 50% coverage, prioritizing areas with recurrent overflows. The closure of two WSTs impacts progress, the reactivation of El Lobo WPS, and the required relocation of the Añasco WTP flow meter for accurate production data. The transition from 4G to 5G technologies is affecting SCADA visualization and YDOC devices, resulting in some systems being out of operation. Energy consumption evaluations are underway to reduce usage through equipment optimization. Water quality parameters are monitored at several facilities, with reports issued when non-compliance is observed. Budget constraints persist due to rising maintenance costs, equipment needs, and staffing shortages. Infrastructure improvements, including leak repairs and pipe renovations, are under consideration. The region aims to ensure facility compliance, strengthen WPS operations, improve budget management, and advance CIP projects' progress.

- **Metro Region:** Water transfers are particularly significant for the region. As a result, an initiative to enhance measurement through the installation of flow meters is underway, with 23 installations completed to date. Measurement of potential water losses will also be achieved through drainage measurement, pressure management, monitoring overflow in WSTs, and the prevention and control of water leaks, especially in San Juan. Pressure management measures include sectorization, detection of high-pressure zones, and valve identification. Efforts to optimize operations and support NRW initiatives include the inspection and repair of WSTs and pumping packings. ROC technology remains operational for visualization of WTPs and the water network, although no operational changes can be made through the system. Additional forms will be completed using Mobile Data Terminals (MDT); prior to this, personnel will be trained, and mobile devices need to be purchased. Several WWTPs reported exceedances in residual chlorine, and sporadic exceedances in other water quality parameters were observed at different facilities. Overflows occurred across the region, particularly at Villas del Mar, Miñi Miñi, and Candelarias Arenas WPSs, and are promptly addressed at WWTPs upon notification. Operational adjustments, including oscillation and thorough cleaning of distribution tanks, system drainage, and continuous monitoring of water quality parameters, are performed at all facilities. Invasive plants continue to be removed from the Carraízo Lake Basin, and sodium permanganate is applied at the intake to improve water quality and reduce hydrogen sulfide levels.
- **North Region:** Unreliable electrical infrastructure continues to challenge the region, particularly in Quebradillas, Vega Baja, Lares, Hatillo, Camuy, Barceloneta, Corozal, and Vega Alta. Excessive use of generators has resulted in equipment failures, prompting the evaluation of alternative power sources to enhance energy resilience. Initiatives to reduce energy consumption, such as equipment replacement and usage optimization, are also being pursued. The NRW target was not achieved; therefore, efforts to identify and control pressure zones, manage water extraction, implement nighttime equipment shutdowns, sectorization, and designate stand-by wells will continue. New flow meters are being installed, especially for water transfer measurement. Deficiencies in SCADA visualization caused by the transition to 5G technology are delaying progress on this initiative. Further actions will enable the visualization of the suction pressure, discharge levels, and fuel levels on mobile devices. Despite full automation at WTPs, operator presence remains necessary. Sporadic exceedances were reported at the Manatí East System, yet overall compliance was maintained. Optimal operation at several facilities is being achieved through infrastructure improvements, technology upgrades, and equipment acquisition, with periodic meetings held to review progress.
- **South Region:** Road resurfacing is a critical concern for the region, leading to the development of an aggressive plan that prioritizes areas based on road age and the number of incidents. The resurfacing contract amount has increased significantly over the past year, and the budget now stands at \$2.8M. Ongoing initiatives have been established to achieve the NRW goal, including the identification and adjustment of pressure zones, enhancing water production measurement, and the installation and maintenance of accessories and equipment. To further support water loss reduction, pressure control courses will be resumed to improve field activities.

The installation of telemetry panels at Collado I WPS enhanced operations, while visualization capabilities were enabled at Sabanetas, Collado II, Cerca del Cielo, and Villa Paraíso WPSs. The smart panels equipped with the CL-17 analyzer, which continuously monitors chlorine levels in water, remain in use. Although flow meters are installed at all WTPs, SCADA visualization is not available for all facilities. Tank overflows are visualized and monitored through SCADA prior to measurement and reporting, yet YODC devices in five WSTs remain out of service. Non-compliance with water quality parameters was reported at several facilities, including DBPs at Coto Laurel WTP and LT2 limits at Real Anón and Rucio WTPs. Fire hydrant flushing is performed as needed when turbidity and chlorine parameters are exceeded, with portable meters used to ensure water loss measurement. The Salinas Aquifer Restoration is no longer classified as an emergency unless water levels reach a critical threshold. Efforts to reduce energy consumption include the installation of timers for nighttime well shutdowns, limiting equipment operation to periods of need, and installing Light Emitting Diode (LED) lights. Optimization and rehabilitation projects are underway across the region, with periodic meetings held to review progress.

- **East Region:** The NRW target of less than 76.12 MGD was achieved through pressure adjustments, correction of hidden leaks, sectorization, improved measurement of water production and transfers, and optimization of equipment and facilities. Telemetry installation is ongoing; the transition from 4G to 5G technologies continues to affect SCADA visualization, resulting in some systems being out of operation. The energy consumption reduction goal was met by eliminating select WPS, installing new equipment, and managing blower run times. Non-compliance was reported at the Río Blanco System, and intermittent elevated enterococci concentrations occurred at the Cayey, Caguas, and Culebra WWTPs. Nutrient levels continue to be monitored across facilities, and Caguas WWTP received USEPA approval during this FY. Efforts to rehabilitate equipment are underway at Humacao, Fajardo, and Caguas WWTPs, with regular meetings to discuss operational optimization. Pipeline corrosion and aging infrastructure are being addressed through emergency projects at Cayey Urbano, Ceiba Sur, Comerío, Caguas Norte, San Lorenzo (Cerro Gordo), Luquillo (Sabana), and El Yunque WTPs.

In all five Regions, the presence of an operator on-site is required at each WTP. When manual operation is necessary, the operator must perform various tests and analyses. Additionally, the automation program for WTPs (8-4-8-4 operation cycle) is not being implemented, nor are there any plans to implement it.

Refer to Appendix A for a summary of various initiatives and projects being implemented or planned across all five regions during FY2025, as well as initiatives scheduled for implementation during FY2026, subject to funding availability. Additionally, refer to Appendices B through M for information on the list of CIP projects, drinking water pipe ruptures, and the main pipeline rehabilitation projects in the five Regions.

The following two tables (Table 5-3 and Table 5-4) depict a summary of the FY2025 status in terms of telemetry and visualization by PRASA's Regions. The information is presented by the percentage of facilities that currently have the appropriate and working technology to remotely visualize, record, and transmit the readings of the instrumentation.

Table 5-3 Summary of Telemetry Percentage by Facility

Facility	Islandwide ¹	West Region ²	Metro Region ³	North Region ¹	South Region ¹	East Region ¹
Intakes	38	76	100	6	0	54
WTPs	99	100	100	100	90	80

Facility	Islandwide ¹	West Region ²	Metro Region ³	North Region ¹	South Region ¹	East Region ¹
WWTPs	2	0	0	0	9	8
Wells	50	98	0	45	9	10
WSTs	99	100	92	98	94	63
WPSs	41	100	98	33	5	9
WWPSs	11	10	3	0	11	3
Flow meters	90	100	70	100	100	100

¹ Data obtained from PRASA was updated in September 2025.

² Data obtained from PRASA was updated in October 2025.

³ Data obtained from PRASA was updated in November 2025.

Table 5-4 Summary of Visualization Percentage by Facility

Facility	Islandwide ¹	West Region ²	Metro Region ³	North Region ¹	South Region ¹	East Region ¹
Intakes	38	76	100	3	0	54
WTPs	98	100	100	100	80	80
WWTPs	2	0	0	0	9	8
Wells	43	80	0	32	9	10
WSTs	94	91	83	91	94	63
WPSs	41	89	95	29	5	9
WWPSs	11	10	3	0	10	3
Flow meters	70	90	18	67	100	100

¹ Data obtained from PRASA was updated in September 2025.

² Data obtained from PRASA was updated in October 2025.

³ Data obtained from PRASA was updated in November 2025.

5.5 Ongoing Programs and Initiatives

The following sections are additional programs and initiatives that PRASA continued to work on in FY2025 and will continue to be implemented in future FYs. Below is a brief description and status of these programs and initiatives.

5.5.1 Integrated Maintenance Program and Asset Management

The IMP continues to be a focal point for PRASA as it internally monitors KPIs related to repairs, efficiency, and costs. Although the Presidency does not formally request these metrics, they are tracked monthly, and improvements have been observed compared to last year. Repair times are under close observation, given ongoing staffing challenges and the need to subcontract external personnel. Monitoring activities also include compliance with the Preventive Maintenance Plan, evaluation of aging corrective actions, and assessment of pump station redundancy, with findings shared in departmental meetings and with leadership.

The IMP has several ongoing initiatives and programs aimed at improving WTPs and enhancing overall operational efficiency. In FY2025, 99% of WTPs have flow meters installed, with SCADA visibility in 98% of facilities (refer to Table 5-4). Recent improvements to SAP PM for maintenance processes have been completed, with additional efficiency enhancements under consideration. The department has updated and approved several procedures for the IMP; eight have been implemented, while others remain pending staff training and rollout. A predictive maintenance program for WTPs and WWTPs is active in all Regions, utilizing technologies such as ultrasound and vibration analysis. While PRASA personnel have been trained, the program continues to rely on contracted services due to resource limitations.

PRASA has completed assessments at 895 critical facilities for the Corrosion Control Program, with improvements prioritized for alignment with Capital Improvement Projects. Integration of twenty corrosion control design specifications into project planning has been achieved, and 436 operations and maintenance employees have received specialized training. A multidisciplinary committee, including IMP, Operations, Compliance, Safety, and Finance, oversees program implementation to ensure best practices are adopted across the organization.

Remote visualization of WSTs has reached 94% coverage (refer to Table 5-4), supported by the installation of 154 telemetry panels at pump stations. Further expansion will depend on funding and operational needs. Remote monitoring of wells stands at 43% completion (refer to Table 5-4), with additional installations planned for the remainder of the FY. The installation of EGUs has also progressed, with Phase III reaching 73% completion and Phase IV ongoing, pending budget availability.

As part of PRASA's digital transformation, new SAP R/3 and SAP IS-U functionalities for managing point and linear assets were implemented in late 2024. A single asset ID number was established in SAP Enterprise Asset Management, facilitating structured asset organization, improved traceability, and consistency across SAP and GIS platforms. Data synchronization between SAP and GIS improves accuracy and enables more effective planning and maintenance tracking for both IMP and Finance.

The department is actively pursuing new initiatives and programs to enhance operations. These include the digitalization of Form AAA-27 for equipment change management, the ongoing development of a formal technical training program, and a predictive technology pilot at Carraízo Dam to assess cost-effectiveness and accuracy of advanced monitoring solutions. Collaborations with GIS and IT Departments continue to support SAP-GIS integration, GIS layer development for linear assets, and unified asset identification. For more details, refer to Section 5.4.1.5.

The IMP continues to face significant impacts from staffing shortages across technical and management roles, which often necessitate the engagement of external personnel. Fleet management remains a challenge, with ongoing needs for new vehicles and repairs to support daily preventive maintenance activities. Persistent budget constraints and equipment deterioration further affect the department's ability to execute and expand its programs.

Addressing these operational, resource, and staffing challenges is essential for the reliability and efficiency of PRASA's maintenance operations and service delivery.

5.5.1.1 Asset Management

PRASA's Asset Management Program (AMP) is a cornerstone of its strategy to achieve system reliability, cost efficiency, and regulatory compliance. The AMP employs a systematic, data-driven approach to managing physical assets throughout their lifecycle, covering planning, acquisition, operation, maintenance, renewal, and disposal. The key objective is to balance costs, risks, and performance to maximize value and support organizational goals.

Over the past year, PRASA completed a comprehensive gap analysis of its existing Asset Management policies and practices, benchmarking them against industry standards. This analysis identified strengths and areas for improvement, leading to the development of a prioritized Asset Management Roadmap. Executive management actively oversees the implementation of these initiatives, which are tailored to PRASA's organizational maturity and available resources.

The AMP is evolving based on feedback from pilot projects and continuous process improvements. Lessons learned from pilot runs are being used to refine program design and enhance cross-departmental process ownership. The program's governance structure, led by an Asset Management Governance Board, oversees monitoring, compliance, and alignment with strategic objectives.

The following are key components of the PRASA's AMP:

1. **Condition-Based Capital Planning:** PRASA is advancing systematic planning for capital asset replacement based on asset condition, expected useful life, and anticipated performance decline. This approach includes assessment of annual capital investment needs to maintain assets in a state of good repair and compliance with water industry standards. These assessments inform long-term capital investment planning, ensuring infrastructure reliability and service continuity even as federal funding landscapes change.
2. **Vertical and Linear Asset Management:** The vertical Asset Management process is being deployed across additional facilities and regions, prioritizing aging and critical assets. A pilot analysis for linear assets (such as pipelines) is underway, with GIS mapping updates supporting more robust asset tracking and decision-making. Linear assets are monitored with distinct methodologies due to their operational characteristics.
3. **Integration with Other Programs:** Asset Management is closely linked to PRASA's Capital Improvement Plan and other operational initiatives such as emergency generator acquisition, pressure management, and fleet and equipment purchases. Each of these programs now includes requirements for detailed asset inventories and maintenance plans, further embedding Asset Management principles across the organization.
4. **Continuous Improvement & Training:** The Asset Management Governance Board conducts focused workshops to identify process gaps and develop optimal workflows, with emphasis on operational activities, system improvements, people, and change management. A Strategic Asset Management Plan (SAMP) has been developed as a framework, and asset-level management plans are being defined for both vertical and linear assets.
5. **Monitoring & Reporting:** PRASA enhanced its SAP enterprise system to leverage asset data and history, supporting real-time tracking and informed decision-making. Governance structures and recurring workshops ensure continuous improvement and organizational engagement. Progress against the Asset Management Roadmap is monitored through defined deliverables and deadlines (e.g., vertical asset deployment by December 2025, linear asset pilot completion by March 2026).

6. **Governance and Future Focus:** The Asset Management Governance Board oversees the completion of key action items and ensures compliance with the broader Action Plan for Asset Management. The Board's multidisciplinary approach supports collaboration among operational, finance, and compliance teams. Moving forward, PRASA plans to continue to refine asset data, integrate Asset Management with CIP and other business processes, and invest in training and technology to support a culture of proactive, data-driven asset stewardship.

5.5.2 Non-Revenue Water Reduction Program

Reducing NRW continues to be a high-priority initiative for PRASA, as it will have both revenue enhancement and expense reduction impacts on finances. Therefore, PRASA has invested in different departments within PRASA to implement this initiative. The two main programs are Metering Optimization and the WRO.

The 2025 PRASA Fiscal Plan reported the following improvements in the system in the last five years with regard to the NRW program:

- Annual production of water decreased by 28.5 MGD or 5%
- NRW decreased by 28.5 MGD or 5%
- Water losses were reduced by 19 MGD or 6%
- Physical losses decreased by 35 MGD or 12%

5.5.2.1 Metering Optimization

To reduce commercial water losses and improve customer experience, PRASA has outlined three initiatives under the Customer Service Department. The initiatives include Efficiency and Customer Service Optimization, Commercial Water Loss Reduction, and AMI.

PRASA issued an RFP to obtain new water meter technology and an islandwide AMI system. The AMI system will allow PRASA to read customer meters remotely, increasing meter resiliency and accuracy. In addition, with an AMI system, PRASA will be able to obtain real-time customer consumption data, which benefits both PRASA and the customer, allowing for visibility of service area status.

PRASA entered into a contract with two proponents who participated in the pilot phase of the AMI project. PRASA evaluated the results of the pilots and awarded the contract to a proponent; this led to a Master Contract to provide water meters and AMI Technology islandwide. Concurrently with the pilot phase, PRASA issued an RFP for the installation of both the water meters and AMI infrastructure islandwide. It is expected that by June 2026, the installation contract(s) will be in place. The Full Deployment Installation will commence in July 2026. Having accurate meter readings will allow for more precise identification of unauthorized water consumption users, and the remote readings will improve customer service efficiency.

5.5.2.2 Water Recovery Office

The WRO focuses on recovering physical losses throughout the water distribution system. In pursuing the vision of achieving long-term sustainability, PRASA included the reduction of NRW as one of the three key focus areas of the 2025 PRASA Fiscal Plan and has established three main programs for reducing physical losses to achieve a reduction of 52.02 MGD by FY2039. These programs are:

- Master Meters: Accurately measure water production by installing water meters at critical facilities.

- **Pressure Management:** Incorporating pressure management best practices across the transmission and distribution network.
- **Leak Detection and Reduction:** Improving identification, prioritization, and resolution of major leaks across PRASA assets.

To track water loss, the WRO conducts annual water audits. The WRO is responsible for implementing controls and developing action items to address NRW and meet the established goals. The WRO is also looking at new technologies to identify leaks. The WRO further established the NRW team ("TeamORA"), which includes the WRO staff and integrated operation personnel, to address the NRW initiatives more efficiently and effectively in each region. PRASA's WRO includes two contracts, one for oversight and project management and another for office and field personnel. The WRO also includes GIS personnel who support other departments within PRASA.

5.5.2.2.1 Master Meters

To accurately measure water production at PRASA's facilities, water meters at the WTPs and wells must be validated, calibrated, or replaced. During FY2025, the WRO visited facilities to validate the conditions of the master meters. The process for validating a meter is to visit the facility, verify if the meter complies with the run-length upstream/downstream specified by the manufacturer, verify the hydraulics of the pipeline to ensure the meter is reading accurately, and validate the local display with SCADA. In addition, the WRO will purchase new meters that comply with the field conditions if the existing meter is not operational. The goal is to reduce the percentage of estimated water production to 4% or less by the end of FY2026. By FY2027, 100% of the water produced is expected to be measured.

To present visibility of the water produced, the WRO created a dashboard that monitors, with up to two days' delay, the islandwide water production. This tool has helped create consciousness at both different levels of the organization to help reduce the amount of water produced.

5.5.2.2.2 Pressure Management

Typically, lowering the water pressure of the system will reduce the amount of water loss by preventing water leaks. As part of the pressure management initiative, WRO has identified 45 NRW Pressure Zones on which to focus its pressure monitoring efforts and adjust pressure zones. Once these areas function at optimal pressure, new areas will be identified and included in the pressure management initiative. WRO expects to visit over 80 pressure zones each year and recover NRW at a rate of approximately 2 MGD per year up to FY2038.

Another pressure management initiative is the implementation of a Visualization and Hydraulic Control Center (VHCC) used to monitor flow, pressure, and tank levels throughout PRASA's water system. Once implemented, ORA will combine PRASA's GIS and SCADA information to reduce pressure in certain areas of interest. During FY2025, WRO commenced with a pilot in Patillas Urbano and hopes to have all evaluations of the system ready for the end of FY2026.

5.5.2.2.3 Leak Detection and Reduction

The Leak Detection and Reduction Program, which will be performed in parallel with the Pressure Management Program, covers the whole island and has a two-person crew assigned to each region. Currently, the WRO team has been actively locating leaks. The Regional Department Director also notifies the WRO team when areas with water deficiencies are identified. Several leaks have been located, reported, and repaired using this approach. The WRO continues to obtain additional funds to expand its field resources.

The WRO has a goal to recover 13.1 MGD for FY2026, while covering 988 miles of pipeline using sound loggers and sensors.

5.5.3 Project Management Office

On July 1st, 2023, PRASA established its PMO with the goal of enhancing the management and execution of strategic and corporate projects across the entire organization. The PMO was designed with a customized organizational structure to address PRASA's unique project portfolio and operational needs. As of October 2024, the PMO oversees a robust portfolio of 41 active projects, grouped into seven programs and spanning all PRASA departments. This portfolio is dynamic, with three completed projects replaced by three new initiatives to ensure continued alignment with PRASA's Fiscal and Strategic Plans.

Throughout FY2024, the PMO delivered significant value through several key initiatives. It established a PMO Governance Board, involving PRASA's Executive President and Vice Presidents, to provide regular oversight and strategic direction via monthly meetings. The PMO also developed a comprehensive project management framework, introducing standardized methodologies, tools, and processes to improve project delivery and consistency organization-wide. To further enhance transparency and decision-making, a Project Portfolio Dashboard was implemented, enabling the governance board and project teams to monitor progress, KPIs, and the overall health of the portfolio in real-time. Current portfolio highlights include projects related to AMI, onboarding, operator training, water balance and transfer, metering (including well water metering), workforce management, headquarters building improvements, employee assistance, energy savings, digitalization, call center system enhancements, callback systems, and timekeeping solutions, reflecting the PMO's broad impact and strategic focus across PRASA.

Recognizing the importance of organizational change, the PMO deployed both a Cultural Change Management Plan and a Communication Plan, fostering a culture of continuous improvement, effective risk management, and broad awareness of PMO benefits. The introduction of PMO methodology workshops, as well as the PM Toolkit exhibition, helped to build project management skills and awareness among staff, with 57 participants attending sessions by October 2024 and further sessions planned for leadership in 2025. The launch of the Project Management Network in December 2024 further strengthened collaboration and knowledge sharing among project managers and teams.

To promote efficiency and digital transformation, the PMO implemented Microsoft Teams as a collaborative environment for project documentation and communications. It adopted Microsoft Project for the Web for portfolio and project tracking. Pilot projects, such as the New Real-Time Hydraulic Model to reduce plant water production levels and the Job Classification and Compensation Plan, served to validate and refine the PMO's methodologies, with PMO team members acting as project managers, coaches, and facilitators. The PMO also worked closely with the IT department to implement project portfolio management practices, ensuring departmental projects are strategically prioritized and aligned.

Looking ahead to FY2026, the PMO aims to expand its services by continuing to support the existing project portfolio, further developing leadership capabilities among PRASA managers, and rolling out an organizational and cultural change management framework. This framework will integrate best practices for stakeholder communication and risk management, ensuring a holistic approach to change and project delivery. Additionally, the PMO plans to issue an RFP to engage external consultants to support its continued growth and maturity. Ongoing governance board meetings and the implementation of a management school for supervisors and managers will help maintain strong alignment, accountability, and a shared understanding of operational goals.

5.5.4 Energy Management Program

PRASA's energy cost is the second largest expense and depends on the fluctuations in electricity rates established by the PREB based on oil prices. Therefore, PRASA continues implementing initiatives to reduce energy consumption, as summarized below:

- **Regional Measures:** PRASA continues to implement non-capital energy conservation measures in the System at a regional level. Since FY2013, PRASA has reduced its electricity consumption from over 740M kWh to 650M kWh through facility consolidations, minor repairs, operational optimization, and miscellaneous improvements.
- **PPAs:** PRASA manages ten facilities under PPAs for lower energy unit costs per kWh than what PRASA pays to PREPA/LUMA. The PPAs allow these facilities to use photovoltaic energy, producing approximately 11.3M kWh per year at a \$0.15 per kWh blended rate. Annual savings for these facilities vary based on PREPA rates. The ten facilities operating PPAs and their average annual solar energy production are shown in Table 5-5. PRASA is now focusing on projects or alternatives to reduce the unit per kWh through additional renewable/alternate energy projects.

Table 5-5 PRASA's Current PPAs Average Annual Solar Energy Production

Facility	Average Annual Solar Energy (M kWh)
El Yunque WTP	3.43
Arecibo RWTP	1.71
Canóvanas WTP	1.71
Cayey WWTP	0.86
Humacao RWWTP	0.86
Aguada WWTP	0.86
Guaynabo - Los Filtros WTP	0.86
Culebra WWTP	0.49
Vieques WWTP	0.33
Arcadia WPS	0.19
Total	11.30

PRASA continues to find ways to implement renewable energy in existing facilities. Various renewal energy projects are in the planning and design phases, and Table 5-6 provides additional details for the projects for which PRASA has already identified funds.

Table 5-6 PRASA Renewable Energy Projects

Facility	Type of Renewable Energy	Capacity	Estimated Savings	Status
Santa Isabel WWTP	Solar Panels and wind turbines with Battery Backup	2.7 MW DC 1 MW Wind Turbines	80-95%	Design
Maunabo WWTP and WWPS	Solar Panels with Battery Backup	280 KW AC	80-95%	Design

Facility	Type of Renewable Energy	Capacity	Estimated Savings	Status
Superacueduct Raw Water Intake MicroGrid	Natural Gas and Solar Panels with Battery Backup	9 MW Natural Gas 10 MW Solar Panels	-	Design
Superacueduct WTP	Solar Panels with Battery Backup	2 MW DC	80-95%	Planning

5.5.5 Master Plan Update

PRASA develops its Water and Wastewater Master Plan (Master Plan) every 10 years to align with the U.S. Census population information. The latest Master Plan was completed in 2024 for population projection adjustments and to create the roadmap for the next years for a safer, resilient, efficient, and financially viable System.

The Master Plan incorporated the 2015 USEPA Consent Decree and PRDOH agreements amendments, climate change adaptation strategies, and energy management strategies. The 2024 Master Plan update also prioritized the projects included in the CIP horizon. However, the updated methodology for prioritizing all projects was not completed in the 2024 Master Plan. Additionally, a tool was created to facilitate future Master Plan updates based on changes in the operational areas.

Building on these foundations, the 2024 Master Plan introduces key enhancements and recommendations:

7. **Regulatory Compliance:** Integration of amendments from the 2015 USEPA Consent Decree and PRDOH agreements ensure alignment with regulatory standards.
8. **Climate Change Adaption:** Adoption of robust climate change adaptation strategies to mitigate risks and enhance system resilience.
9. **Energy Management:** Inclusion of energy management strategies to improve operational efficiency and reliability.
10. **Capital Improvement Prioritization:** Projects prioritized within the CIP to address critical infrastructure needs.
11. **Continuous Improvement Tools:** Introduction of new tools to facilitate future Master Plan updates, allowing PRASA to adapt proactively.

These initiatives collectively aim to safeguard water quality, ensure reliable service delivery, and support sustainable growth for Puerto Rico's communities. The Master Plan's recommendations are based on feasibility studies and are designed to provide both immediate and long-term benefits, enhancing PRASA's ability to respond to regulatory, environmental, and financial challenges.

5.6 Conclusions

During FY2025, PRASA remained focused on its O&M endeavors on re-establishing the System after the aftermath of hurricanes, the 2020 Earthquakes, staff shortages, and the constant challenges of competing priorities for funding. As described in Section 2, PRASA's fiscal situation looks promising and continues to improve due to the implementation of various financial initiatives and the inflow of federal funds. This positive trajectory positions

PRASA to move forward with its CIP, aiming to tackle critical system requirements and address pertinent O&M issues.

Despite certain O&M-related observations made during facility inspections, PRASA O&M practices are adequate. Common challenges identified through the Regions and Departments continue to be funding and personnel availability for O&M functions, fleet shortage, aging infrastructure, and length of time to complete and close out maintenance work orders, among others.

PRASA acknowledges the extensive journey ahead in addressing these challenges, which have historically impeded O&M performance. However, PRASA remains hopeful that pivotal operational initiatives will pave the way for indispensable improvements within the System. Initiatives such as the reduction of NRW, enhancements in meter resiliency and accuracy, billing precision through the procurement of advanced metering solutions, and the updated Master Plan all stand as pillars to support the much-needed enhancements in the System's operations and maintenance standards. These strategic initiatives, when realized, are expected to play a pivotal role in transforming and fortifying PRASA's operational landscape.

6 Capital Improvement Program and Regulatory Compliance

6.1 Introduction

PRASA has developed a multi-year CIP to improve and maintain its System and to restore damaged infrastructure to its condition before the 2017 Hurricanes, the 2020 Earthquakes, and 2022 Hurricane Fiona. The CIP's main objectives are to maintain (renew and replace), modernize (new technology), and simplify the System to achieve operational efficiency and sustainability, protect public health, safeguard environmental quality, enable continued economic development, and meet all regulatory requirements. Additionally, the CIP includes projects aimed at meeting mandatory compliance with the 2015 USEPA Consent Decree, as recently amended, and the 2006 PRDOH Drinking Water Settlement Agreement.

The CIP is a dynamic program that evolves and undergoes revisions as needed, and sources of funds are identified as projects transition from pre-construction to the construction phase to finally reach start-up and commissioning. The CIP is subject to review and approval by PRASA's Governing Board. PRASA's financial circumstances have improved due to the implementation of various initiatives, including recent debt refunding, resulting in debt service savings without increasing the maturities of the refunded debt, and projected inflow of federal funds to cover (with appropriate contributions from PRASA's internal funds) its CIP needs, allowing for more robust infrastructure and a more efficient and resilient System. Refer to Section 2 for information on PRASA's fiscal situation and CIP funding strategy.

The CIP presented in this Report refers to the CIP included in the 2025 PRASA Fiscal Plan. The execution of PRASA's CIP is contingent upon funding availability and proper allocation of funds.

6.1.1 Capital Improvement Program Status Updates

PRASA has engaged the services of four PMCs to support its Infrastructure Department in the planning, design, permitting, procurement, construction, and management of the CIP projects in each of the five Regions. As of March 31, 2025, PRASA had 291 active projects in the CIP at different stages for a total investment of \$8,208M, as shown in Table 6-1.

Table 6-1 Active CIP Projects by Stage

Stage	Number of Projects	Estimated Investment (\$, M)	Percentage (%)
Pre-Planning	2	\$1,204	15
Planning	22	\$1,079	13
Design	64	\$2,356	29
Bidding	31	\$1,569	19
Construction	106	\$1,642	20
Completed	66	\$357	4
Total	291	\$8,208	100

As of March 31, 2025, major projects under construction include the meter replacement, the rehabilitation of the Enrique Ortega WTP, the dredging of Lake Carraízo, the rehabilitation of the Culebrinas WTP, the rehabilitation of the Guayama RWWTP, improvements to the Vieques WWTP, the rehabilitation of the Morovis Sur WTP, and the rehabilitation of the trunk sewers in Camuy, Barceloneta, and Patillas/Guayama.

In addition, the main projects currently in the design or bidding phases include the Buena Vista Community System drainage and sewer and water system improvements, the rehabilitation of the Guaynabo WTP, the rehabilitation of the Superaqueduct WTP, improvements to Mayagüez WWTPs, the rehabilitation of the Sergio Cuevas WTP, the rehabilitation of the Caguas Norte WTP, the Superaqueduct microgrid, improvements to the Carolina WWTP, the completion of the Valenciano WTP, and the rehabilitation of the Santa Isabel WWTP.

6.2 Capital Improvement Program Implementation Management

PRASA's and the PMC's goal is to oversee the implementation and management of CIP projects throughout the pre-construction, construction, and post-construction phases. As part of the pre-construction activities, the PMCs manage key tasks that drive CIP project budgets, such as defining project scopes, negotiating consultant contracts for studies and design services, reviewing project constructability, preparing project construction cost estimates, preparing bid packages, and managing bid processes (in close coordination with PRASA's Bidding Board). As part of the construction management services, the PMCs serve as PRASA's representative on CIP projects and include managing project schedules, negotiating project change orders, and administering construction contracts. In addition, the PMCs support project start-up, training, and closeout activities as part of the post-construction services.

6.3 Capital Improvement Program Project Distribution and Costs

CIP projects are divided into categories, groups, and types. PRASA has implemented a prioritization system to manage the large and complex CIP better. Projects included in the CIP are major capital improvements identified throughout all five Regions, as well as islandwide system improvement initiatives such as integration of technological advancements, telemetry implementation, and general R&R. PRASA developed the CIP with the following key points in mind: a) recovery of the System after hurricanes and earthquake impacts and focus on improving the System efficiency and modernization b) ensuring water quality, c) meeting regulatory commitments as stipulated in the Consent Decree, administrative orders, and other agreements with regulatory agencies and d) determining current and future infrastructure and operational needs identified from System planning studies.

Once the need for a capital improvement project is identified, a project creation form is prepared. The form includes the project scope, preliminary schedule, and cost estimates. The project is then assigned to a CIP project number and added to the CIP inventory, which is categorized according to PRASA's classification and prioritization system. Updates to the CIP are presented to PRASA's Governing Board at least once a year for revision and approval.

PRASA allocates costs associated with the construction of facilities to the CIP projects, including direct costs, planning, studies, engineering design, inspection, services during construction, owner-controlled insurance program (OCIP), project management, administrative expenses, financing costs (if applicable), and other expenses related to and inherent to construction. In addition, the CIP cost projections include a contingency reserve for unexpected

costs that could arise during the project life cycle. If the contingency is not spent after construction is completed, the reserve is released for other CIP projects.

6.3.1 Project Classification and Prioritization

CIP projects, as defined in the 2025 PRASA Fiscal Plan, are classified into the following categories:

- **FAAST or Reconstruction & Recovery Projects:** These projects are to repair the infrastructure impacted by the 2017 Hurricanes, the 2020 Earthquakes, and 2022 Hurricane Fiona to industry standards, and for the FAAST portion projects to address the impact of the 2017 Hurricanes, based on the work plan submitted to FEMA on April 8, 2021, and subsequently updated every 90-days.
- **R&R:** These projects are related to renewing or replacing aging infrastructure at or near the end of its useful life (e.g., pipelines, pumps, motors, etc.).
- **Compliance (Mandatory and Non-Mandatory):** Project required or expected to be required by agreements, including USEPA Consent Decree, PRDOH Drinking Water Settlement Agreement, civil actions, administrative orders, court orders, and other mandatory projects or projects that may result in non-compliance in the future if not addressed.
- **Mitigation and Resiliency:** Projects to reduce risks posed by natural disasters and protect life and property from future disasters. Also, projects that can withstand and adapt to changing conditions and recover promptly from shocks and stresses.
- **Quality:** These projects are meant to increase the quality of the water and wastewater service provided to the customers.
- **Fleet and IT:** These projects are intended to replace vehicles in PRASA's fleet and improve IT infrastructure.
- **Optimization and Emergencies:** These projects aim to increase efficiency and address emergency and contingency needs.
- **Electric Generators:** To acquire EGUs to provide redundancy and backup for the electricity supply at critical facilities.
- **Safety and Growth:** These projects allow System growth and increase security at PRASA's facilities.
- **Others:** These projects are considered necessary and do not fall under the previous categories.

Projects are further classified as either water or wastewater system projects. Water system projects include improvements or construction of new facilities for water supply, water distribution, WTPs, WPSSs, and WSTs, among others. Wastewater system projects include projects for improvements or construction of new facilities for wastewater collection, WWTPs, and WWPSs.

In addition to project classification, mandatory projects were previously ranked according to a prioritization score. This score was based on the weighted sum of evaluation criteria established in the 2010 Master Plan and agreed upon with regulatory agencies. The four main criteria used to prioritize CIP mandatory projects were Regulatory Compliance (40%), Quality of Service and Reliability (30%), Operational Efficiency Improvements (20%), and Population Impacted by the Project (10%). Recognizing that these criteria had become outdated, PRASA established a clear and objective project prioritization process as part of the 2024 Master Plan, the most recent update of which was completed on April 30, 2024. However, the updated methodology to prioritize all projects was not completed in the 2024 Master Plan. To ensure the implementation of future long-term projects and the availability of funds. The new prioritization system should be developed.

In addition, PRASA has identified the following priorities in its pursuit of immediate restoration of all infrastructure damaged by the hurricanes and continued compliance with regulatory agencies:

1. Projects needed to restore the infrastructure damaged by the 2017 Hurricanes, the 2020 Earthquakes, and Hurricane Fiona in 2022.
2. Mandatory compliance projects were included in the 2015 USEPA Consent Decree, the 2006 PRDOH Drinking Water Settlement Agreement, and subsequent negotiations.
3. R&R needed to rehabilitate and replace its System assets to maintain and improve its service and infrastructure performance.

6.3.2 Capital Improvement Program Metrics and Key Performance Indicators

PRASA continues to monitor the established project metrics, compliance, and execution through a CIP tracking tool. The tracking tool is used to manage project time, develop a detailed project baseline, track the progress, milestones, and metrics of all projects monthly, keep track of projects on target and off target, and identify causes for delays. In addition, PRASA implemented a module in SAP to review and update its current tracking tool to enhance compliance with the expected execution schedules and costs.

In addition, PRASA continues to implement KPIs to allow for detailed tracking of CIP compliance and success and to evaluate the PMCs' performance. Since construction is typically the phase with the highest potential for deviations in cost and time, PRASA tracks two industry standards KPIs - Cost Performance Index and Schedule Performance Index. The Cost Performance Index measures the cost efficiency of resources committed to the project compared to the budget, assessing whether the project will be completed on budget. The Schedule Performance Index measures the relationship between the executed work and planned work, assessing whether the project will be completed on time.

6.4 PRASA's Capital Improvement Program (FY2025-FY2039)

PRASA's CIP for FY2025 through FY2039, as included in the 2025 PRASA Fiscal Plan, amounts to \$11.7B. Figure 6-1 and Table 6-2 show annual capital expenditures by project category. Almost 80% of PRASA's CIP comprises Reconstruction & Recovery, Compliance (mandatory and non-mandatory), and Mitigation and Resilience projects of the total forecasted expenditures.

Reconstruction & Recovery, totaling 42% of the total CIP, is \$4,931M and is the largest category in terms of dollars throughout this CIP period. Mitigation and Resiliency projects are the second largest expense, with an annual average expenditure of \$219.9M and a total of \$3,298.6M. R&R is now the third largest expense, with an annual average expenditure of \$76.6M and \$1,148.2M over the 15-year period.

The total of \$11.2B of identified projects under CIP, approved by the PRASA Governing Board on February 27, 2025, along with additional funds for R&R projects, includes \$572M for meter replacement and other infrastructure needs.

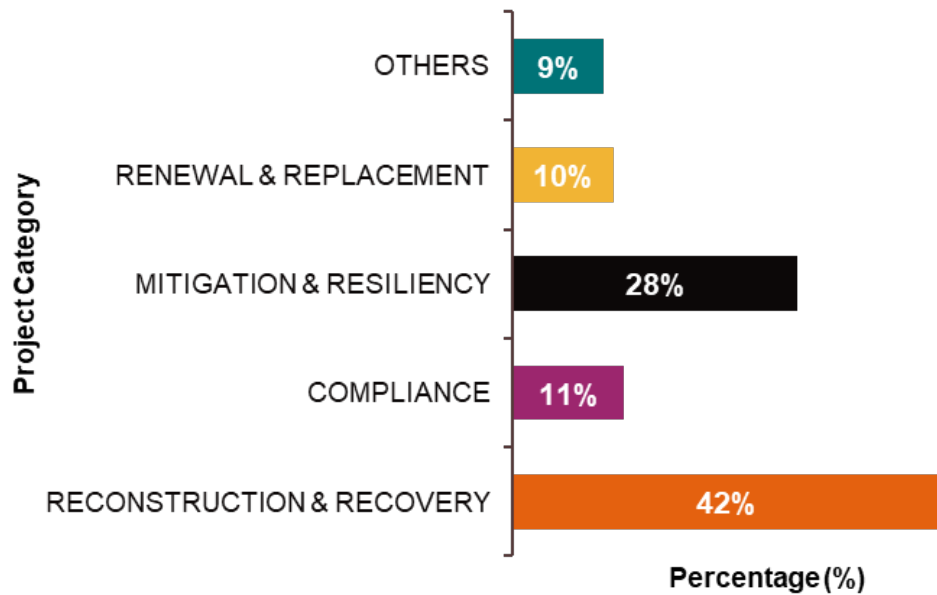


Figure 6-1 PRASA's CIP Capital Expenditures by Category

Table 6-2 CIP FY2025-FY2039 by Category (\$ in M)¹

Project Category	Fiscal Year Ending June 30							
	2025	2026	2027	2028	2029	2030	2031	2032
Reconstruction & Recovery	\$518.0	\$1,069.7	\$1,459.3	\$1,238.7	\$428.4	\$95.3	\$25.8	\$18.1
Mandatory Compliance	\$40.1	\$96.4	\$100.5	\$38.1	\$19.2	\$14.7	\$5.9	\$1.5
Mitigation & Resiliency	\$24.6	\$161.3	\$449.0	\$809.7	\$532.5	\$249.3	\$239.9	\$389.2
Generators & Meters	\$15.0	\$2.5	\$0.7	\$3.5	\$5.5	\$5.5	\$19.0	\$24.0
Renewal & Replacement	\$60.8	\$71.9	\$40.0	\$40.0	\$58.0	\$69.5	\$80.0	\$80.0
Non-Mandatory Compliance	\$129.1	\$152.0	\$214.2	\$187.4	\$76.6	\$42.3	\$41.9	\$34.4
Quality	\$5.2	\$12.8	\$11.5	\$1.5	\$-	\$-	\$-	\$-
Fleet & IT	\$2.4	\$5.7	\$5.0	\$8.0	\$8.0	\$8.0	\$8.0	\$8.0
Others	\$24.7	\$74.3	\$137.9	\$149.0	\$107.0	\$68.7	\$40.9	\$23.9
Total	\$845.8	\$1,647.1	\$2,418.2	\$2,475.9	\$1,235.2	\$553.1	\$461.4	\$579.1

¹Numbers may not add up due to rounding.

Project Category	Fiscal Year Ending June 30							
	2033	2034	2035	2036	2037	2038	2039	2025-2039
Reconstruction & Recovery	\$11.5	\$15.3	\$17.7	\$11.9	\$10.7	\$10.7	\$0.0	\$4,931.1
Mandatory Compliance	\$3.4	\$4.5	\$1.2	\$-	\$-	\$-	\$-	\$325.6
Mitigation & Resiliency	\$332.4	\$108.5	\$2.0	\$0.2	\$-	\$-	\$-	\$3,298.6
Generators & Meters	\$24.0	\$24.0	\$34.0	\$34.0	\$34.0	\$23.5	\$32.0	\$281.2
Renewal & Replacement	\$80.5	\$83.5	\$96.0	\$96.0	\$96.0	\$96.0	\$100.0	\$1,148.2
Non-Mandatory Compliance	\$31.8	\$4.9	\$-	\$-	\$-	\$-	\$-	\$914.6
Quality	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$31.0
Fleet & IT	\$8.0	\$8.0	\$8.0	\$8.0	\$8.0	\$8.0	\$-	\$101.1
Others	\$13.6	\$4.5	\$5.0	\$2.7	\$2.7	\$2.7	\$-	\$657.6
Total	\$505.4	\$253.5	\$164.0	\$152.8	\$151.4	\$140.9	\$132.0	\$11,715.8

¹Numbers may not add up due to rounding.

PRASA's CIP consists of over 500 projects, of which 291 have already been assigned to PMCs, with a CIP investment estimated at over \$8B. As funding allocation is approved for other projects, PRASA will continue distributing the projects within the four PMCs.

6.4.1 Water System Projects

The water system projects include projects to improve compliance (mandated and not mandated), upgrades to WTPs, STSs, water distribution systems, and the construction of new water infrastructure. Total capital expenditures in water system projects for FY2025 through FY2029¹² are estimated at \$2,973M. Approximately \$114M is allocated for projects classified as Mandatory Compliance, \$896M is allocated for projects classified as Mitigation & Resiliency, and approximately \$1,963M is allocated for projects classified as Reconstruction & Recovery, among others.

6.4.2 Wastewater System Projects

The wastewater system projects include improving compliance, new WWTPs, and upgrading wastewater collection systems. Total capital expenditures in wastewater system projects for FY2025 through FY2029¹³ are estimated at \$2,098M, of which approximately \$175M is allocated for projects classified as Mandatory Compliance, \$135M is allocated for projects classified as Non-Mandatory Compliance, \$157M is allocated for projects classified as Mitigation & Resiliency and approximately \$1,631M is allocated for projects classified as Reconstruction & Recovery, among others.

¹² Source: CIP Excel Table (CIP for 2025 Fiscal Plan, FY2024-FY2029) provided by PRASA.

¹³ Source: CIP Excel Table (CIP for 2025 Fiscal Plan, FY2024-FY2029) provided by PRASA.

6.4.3 Additional Category Projects

Total capital expenditures for the remaining capital project categories are estimated at approximately \$3,123M for FY2025 through FY2029¹⁴. Approximately \$1,090M is allocated for repairs to infrastructure impacted islandwide by Hurricanes Irma and María and others under the R&R program. Mitigation & Resiliency projects have approximately \$1,977M allocated, Meters and Electrical Generators projects have \$27M, and Fleet and IT projects have \$29M. The remaining funds are distributed between Compliance, Quality, Safety, Emergencies & Contingencies, and Other upgrades.

6.5 Current Regulatory Compliance

One of the main six-year CIP objectives is regulatory compliance with the current Consent Decree and the 2006 PRDOH Drinking Water Settlement Agreement. In October 2024, modifications to the said Consent Decree and agreement between PRASA and regulatory agencies were approved. Note that the actual cost to meet compliance with the Consent Decree and agreements and PRASA's total capital expenditures may vary substantially depending on:

- The inflationary environment for the costs of labor and supplies needed to implement the compliance program.
- Severe weather conditions could adversely affect construction schedules and consumption patterns.
- Population trends and political and economic developments in Puerto Rico could adversely impact the collection of operating revenues.
- Possibility of new environmental legislation or regulations affecting the System.
- Unanticipated costs or potential modifications to projects resulting from requirements and limitations imposed by environmental laws and regulations.
- The inherent uncertainty in the CIP projects of the magnitude undertaken by PRASA.

The Consent Decree and Drinking Water Settlement Agreement currently in effect with the regulatory agencies are:

- Consent Decree: U.S. v. PRASA and Government of Puerto Rico, Civil Action Number 15-2283 (JAG) – Addresses violations of Sections 301 and 402 of the Clean Water Act (CWA) and regulations promulgated thereunder, and PRASA's NPDES permits with regard to PRASA's WWTPs, WWPSs, and STSs, as well as several administrative orders.
- 2006 PRDOH Drinking Water Settlement Agreement, Civil Action KPE 2006-0858 (904) as amended – Addresses non-compliance and alleged violations with the Puerto Rico Potable Water Purity.
- Protection Law, as amended, the SDWA and applicable regulations, and the General Environmental Health Regulation. The PRDOH and PRASA are addressing amendments to this Settlement Agreement through independent motions.

In 2024, USEPA rescinded the force majeure associated with Hurricanes Irma and María, and COVID-19, and penalties came into effect. During the period evaluated, PRASA requested force majeure for the following events:

- Hurricane Ernesto – August 14, 2024 (under USEPA evaluation).
- Islandwide electrical blackout – April 16, 2025, and April 19, 2025.

¹⁴ Source: CIP Excel Table (CIP for 2025 Fiscal Plan, FY2024-FY2029) provided by PRASA.

USEPA and the U.S. Department of Justice (USDOJ) completed negotiations and modifications to the Consent Decree, which were approved by the Court and came into effect in October 2024 as part of the Modified Consent Decree.

6.5.1 Consent Decree and Drinking Water Settlement Agreement Progress Reports

The Consent Decree with USEPA and the Drinking Water Settlement Agreement with PRDOH require PRASA to implement remedial plans, develop and implement CIP projects to bring PRASA's Systems into compliance with regulatory requirements, and conduct evaluations concerning specific systems' infrastructure and operational issues. For this report, Arcadis reviewed the following progress reports submitted to regulatory agencies:

- 2015 USEPA Consent Decree Biannual Progress Report (BPRs): Number 18: March 1st, 2024, through August 31, 2024s, Number 19: September 1st, 2024, through February 29, 2025s, Number 20: March 1st, 2025, through August 31, 2025s.
- 2006 PRDOH Agreement Quarterly Progress Reports:
 - Number 66: July 1st, 2024, through September 30, 2024.
 - Number 67: October 1st, 2024, through December 31, 2024.
 - Number 68: January 1st, 2025, through March 31, 2025.
 - Number 69: April 1st, 2025, through June 30, 2025.

A summary of these progress reports is presented in the following subsections.

6.5.1.1 2015 USEPA Consent Decree – Biannual Progress Reports

The Consent Decree with USEPA and the Drinking Water Settlement Agreement with PRDOH require PRASA to implement remedial plans, develop and implement CIP projects to bring PRASA's Systems into compliance with regulatory requirements, and conduct evaluations concerning specific systems' infrastructure and operational issues. For this report, Arcadis reviewed the following progress reports submitted to regulatory agencies:

- 2015 USEPA Consent Decree BPRs: Number 18: March 1st, 2024, through August 31, 2024s, Number 19: September 1st, 2024, through February 29, 2025s, Number 20: March 1st, 2025, through August 31, 2025s
- 2006 PRDOH Agreement Quarterly Progress Reports:
 - Number 66: July 1st, 2024, through September 30, 2024.
 - Number 67: October 1st, 2024, through December 31, 2024.
 - Number 68: January 1st, 2025, through March 31, 2025.
 - Number 69: April 1st, 2025, through June 30, 2025.

A summary of these progress reports is presented in the following subsections.

6.5.1.2 2015 USEPA Consent Decree – Biannual Progress Reports

In April 2024, USEPA rescinded the force majeure associated with Hurricanes Irma and María and COVID-19. As a result, PRASA was notified that it would begin accruing penalties for non-compliance.

The Consent Decree requires PRASA to submit BPRs. BPRs Numbers 18, 19, and 20 reporting from March 1st, 2024, through August 31, 2025, summarized below, include applicable programs, standards, and special conditions.

The Consent Decree specifies that PRASA shall continue implementing systemwide remedial measures at all WTPs, STS, and WWTPs, and the corresponding sewer system owned and operated by PRASA. Remedial measures are comprised of several projects and action plans as stipulated within the Modified Consent Decree in the Appendices listed below.

- Appendix H includes the base list for remedial measures to address wash water discharges at WTPs, also known as STSs. Only the replacement of the Valenciano WTP or an alternative project to eliminate this plant is pending, for which an extension was granted for May 31, 2027. Appendix I includes the capital projects subject to prioritization. Appendix J includes the base list of remedial measures for WWTPs. Revised compliance deadlines and additional measures were included in the Modified Consent Decree. Appendix 2 (Modified Consent Decree) includes additional remedial operational measures to address destruction caused by Hurricanes to wash water discharges at WTPs, also known as STSs and WWTPs.

PRASA is working on achieving project dates in Appendices H and J, base list projects, and Operational Remedial Measures for STSs and WWTPs. The base list includes a total of 35 projects, of which 33 are outstanding, with expected completion dates by 2030, while Operational Remedial has 43 projects with expected completion by December 2024.

PRASA continues to work with high-priority projects related to remedial measures. The completion dates for the projects included in the base list are on schedule. A summary list of the high-priority projects is included in Table 6-3.

Table 6-3 Base List Projects Breakdown ¹

Region	CIP Number	Facility	Type	Project Description	Status
East	3-40-6006	Ceiba Sur	STS	Eliminate the plant with the new Valenciano WTP or an alternate project to eliminate the plant.	Expected substantial completion by October 2027
East	3-61-5020	Río Grande Estates	WWTP	Divert facility to the private CBUC plant or the Carolina/Fajardo RWWTP.	Completed in 2023
East	3-13-5065	Caguas	RWWTP	Aguas Buenas/Caguas Sanitary trunk sewer collection system.	Expected substantial completion by June 2028
Metro	1-11-5067	Bayamón	RWWTP	Overall improvement project: influent headworks, influent pumps, grit removal system, and clarifier's traveling bridges.	Expected substantially completion by December 2027
Metro	-	Puerto Nuevo	RWWTP	Perform a study to determine the condition of the land portion of the facility's outfall. Install flow proportional chlorination equipment.	In process

Region	CIP Number	Facility	Type	Project Description	Status
Metro	1-66-5111	Puerto Nuevo	RWWTP	Installation of a degritter system.	Expected substantially completion by December 2029
North	2-24-5007	Corozal	WWTP	Retrofit existing facility to achieve nutrient removal.	Proposed to be eliminated
South	4-58-5083	Ponce	RWWTP	Phase II: Rehabilitation of trunk sewer (28 kilometers (km)).	Requested an extension for compliance
South	3-56-5001	Patillas	WWTP	Divert facility to the Guayama RWWTP.	Expected substantially completion by June 2026
West	5-37-5021	Isabela	WWTP	Diversion of the Isabela WWTP discharge to the Costa Isabela Resort.	Expected substantially completion by December 2028
North	-	Arecibo	RWWTP	Diversion of the Arecibo RWWTP discharge to the Barceloneta RWWTP.	Funding allocation
South	3-30-5001	Guayama	WWTP	Improvements to Guayama RWWTP: Replace the existing influent screens and relocate screening dumpsters to increase solids removal and improve operational conditions. Improvements to the Influent Pump Station. Demolish existing degritting units and influent channels and replace them with new vortex-type degritting units. Demolish both existing primary clarifiers and build two new circular primary clarifiers with a design flow capacity capable of receiving wasted activated sludge from the secondary treatment. Improvements to secondary biological treatment. Improvements to the disinfection system.	Expected substantially completion by June 2026
South	4-57-5005	Peñuelas	WWTP	Elimination of Peñuelas WWTP: Divert facility to Ponce WWTP or Rehabilitation of Peñuelas WWTP.	Expected substantially completion by December 2026

Region	CIP Number	Facility	Type	Project Description	Status
South	-	Guayanilla	WWTP	Elimination of Guayanilla WWTP: Divert the facility to Ponce WWTP or the more accessible or feasible WWTP.	Seeking an extension for compliance
West	5-50-9105	Mayagüez	RWWTP	Improvements Mayagüez Outfall: Perform structural repairs to the existing outfall.	Expected substantially completion by December 2028
North	-	Camuy	WWTP	Improvements Camuy Outfall: Perform structural repairs to the existing outfall or divert the facility to Barceloneta WWTP.	Funding allocation
East	3-13-9001	Caguas	RWWTP	Improvements to Caguas RWWTP (Repair Primary Clarifier #2).	Expected substantially completion by August 2029
East	3-23-6247	Comerio	WWTP	Clarifiers Rehabilitation Project (Repair Primary Clarifier # 1).	Completed
East	3-76-5002	Vieques	WWTP	Vieques WWTP Improvements (Replace Aeration Tank Air Diffusers).	Expected substantially completion by November 2027
Metro	2-09-6007	Enrique Ortega	STS	Rehabilitation of the Enrique Ortega WTP (STS, Repair filter press).	Expected substantially completion by June 2028
North	2-24-5007	Corozal	WWTP	Divert facility to Barceloneta WWTP (Replace Grit Transmission #1, Replace Comminutor # 1 and #2, and Replace flow distribution bar (splitter box) and replace Grit Transmission # 2).	Funding allocation
West	-	Aguada	WWTP	Rehabilitation of Aguada WWTP (Repair clarifier units, replace chlorine contact chamber valves, repair influent pump #4).	Funding allocation
West	5-48-6007	Maricao	STS	Rehabilitation of Maricao WTP (STS, Repair drying beds).	Seeking an extension for compliance

Region	CIP Number	Facility	Type	Project Description	Status
West	5-50-5028	Mayagüez	RWWTP	Mayagüez RWWTP Improvements (Repair Primary Clarifier #1 scum collector and replace weirs at Clarifiers #1 and #2, and replace the Primary Clarifier bridges).	Expected substantially completion by September 2028
North	2-26-5002	Dorado	WWTP	New Dorado Trunk Sewer (Replace Rake Screen # 1).	Completed
North	2-52-6007	Morovis Sur	STS	Rehabilitation of Morovis WTP (STS, Repair Centrifuge).	Expected substantially completion by March 2027.
West	5-03-6006	Aguadilla	STS	Rehabilitation of Aguadilla Montaña WTP (STS, Repair Thickener and Rehabilitate Sludge Drying Beds).	Seeking an extension for compliance

¹BPR Number 20 Appendices Nos. 1 and 3.

In addition, as stipulated by the Consent Decree, flow meter devices with flow totalizers and level indicators were installed at the point of discharge for most STS at the WTPs. A total of fifteen flow meters and totalizers, and fourteen high-level alarms at STSs were reported out of service. During FY2025, two flow meters, totalizers, and three high-level alarms at STSs were repaired. Regarding WWTPs, fifteen flow meters and totalizers were reported out of service or malfunctioning, while five were repaired, and the rest are scheduled to be repaired or replaced early in 2026.

As part of the remedial measures included in the Consent Decree, PRASA completed analyzing the rain and wastewater flow relationships and infiltration/inflow (I/I) studies for 45 WWTPs' sewer basins. As a result, repair projects for the sewer systems with completed I/I studies are included in the prioritization list, with an expected completion of 2034.

6.5.1.2.1 New Sludge Treatment System and Solid Handling

The Consent Decree stipulates that any new WTP that begins operation after the day of lodging shall include an alternative power unit and an STS with sufficient hydraulic capacity to manage wash water discharges. There were no new WTPs constructed in FY2025. All PRASA's STSs have a final NPDES permit or are going through the renovation process.

6.5.1.2.2 Sewer System Operation and Maintenance Plan

PRASA and USEPA agreed to submit a consolidated Sewer System Operation & Maintenance Plan (SSOMP) Annual Report beginning May 2019 until the Consent Decree ends. PRASA submitted the 2024 SSOMP Annual Report on May 28, 2025, including revised electronic maps of the Puerto Nuevo RWWTP Sewer System. PRASA recruited additional personnel to increase and reinforce the Sewer System Maintenance Crew (SSMC) to continue the implementation of the SSOMP. This initiative resulted in an improvement of the Puerto Nuevo Sewer System operation and maintenance. In addition, PRASA continues to integrate and update data collected into the GIS database. Training in SSOMP-related topics such as regulatory requirements, health and safety, preventive maintenance, and related on-the-job training continues to be provided to PRASA's staff.

Reconnaissance and Cleaning

As per the modified Consent Decree Modification, sewer line reconnaissance activities for sewer lines equal to or greater than 30 inches were divided into three phases, as shown in Table 6-4.

Table 6-4 Schedule and Progress Reconnaissance of Sewer Lines $\geq$ 30 inches

Phase	Timeline	Status
Phase 1 East Area	September 30, 2023	- Completed - Approx. 2,170 feet (ft)
Phase 2 Baldorioty Area	December 31, 2024	- Completed - Approx. 4,470 ft
Phase 3 San José Area	June 30, 2026	- In progress - Over 67% of completion - Approx. 4,100 ft - CIP for sewer rehabilitation of "Los Angeles" Trunk Sewer

For reconnaissance of the remaining sewer lines, hydraulically connected to the Puerto Nuevo RWWTP, PRASA requested a time extension to complete reconnaissance and cleaning. Table 6-5 includes the proposed completion date for each area.

Table 6-5 Schedule and Progress of Reconnaissance of Sewer Lines Hydraulically Connected to Puerto Nuevo RWWTP

Area	Progress	Original Timeline	Proposed Completion Date
Area 2	64%	June 30, 2025	June 30, 2029
Area 3	21%	June 30, 2028	June 30, 2032
Area 4	1%	June 30, 2031	June 30, 2037
Area 5	Not started	December 31, 2033	December 31, 2040

By August 2025, PRASA will have three ongoing projects for an estimate total of 980,000 linear feet with an expected completion date of June 2026.

Regarding cleaning activities for the remaining sewer lines (less than 30 inches) hydraulically connected to the Puerto Nuevo RWWTP, the compliance schedule is shown in Table 6-6. PRASA is awaiting a response to the timeline extension request made to USEPA.

Table 6-6 Summary of Cleaning of Sewer Lines Hydraulically Connected to Puerto Nuevo RWWTP

Area	Timeline	Status
Area 2	June 30, 2025	• In progress • Approx. 618,800 ft • Over 65% of completion
Area 3	June 30, 2028	• In progress • Over 19% of completion • Approx. 167,800 ft
Area 4	June 30, 2031	• In progress • Approx. 3,700ft • Less than 0.3% of completion
Area 5	December 31, 2033	• Under planning

Also, the modified Consent Decree considers a Priority Methodology for cleaning sewer lines that PRASA developed. PRASA submitted the Priority Sewer Cleaning Methodology report in June 2024 for USEPA's approval. After additional revisions required by USEPA, PRASA submitted a revised version in February 2025 and is awaiting approval to issue the final document. Additional updates will be included in the next bi-annual report. To ensure continuity of sewer cleaning of large-diameter pipes, PRASA contracted companies specialized in this type of work and have completed the inspection and cleaning of Miramar Trunk Sewer, San José Trunk Sewer, and Roberto H. Todd Avenue Trunk Sewer. All the sewer lines equal to or greater than 30 inches will continue to be addressed in accordance with the approved methodology.

During the period evaluated, 70 defects were identified, and two were corrected. Since the SSOMP's implementation, 376 defects have been identified, of which 230 defects (61%) have been corrected, 33 were included in the CIP, and the remaining are pending repairs. As required by the modified Consent Decree, PRASA will use the Sewer Defect Repair and Reinspection Criteria as the primary means of determining the relative priority for each sewer defect that hinders or may hinder the operation of the system. One interconnection from the storm sewer was found within the Puerto Nuevo RWWTP; however, no evidence of discharge was observed.

As far as the wet and dry weather discharges from CSWO outfalls, the modified Consent Decree requires PRASA to have a calibrated and validated sewer system model for the Puerto Nuevo RWWTP that enables PRASA to estimate, based on CSWO outfall level monitoring and sewer system modeling, the volume of each CSWO discharge. PRASA installed level sensor devices with cellular connectivity to continuously monitor sewer flow depth to identify discharge occurrences and assess the conditions that may lead to DWO. CSWO volume has been estimated using model simulations of wet weather events measured by level meters. Modeling is pending calibration and validation for its implementation. In May 2025, PRASA submitted a technical memorandum including the model development, results from characterization, inspection, level monitoring, and flow monitoring efforts performed.

FOG

Meetings were held with food associations, non-profit organizations, government agencies, and municipalities to discuss the requirements and guidelines of the FOG Control Program. PRASA continues the public education campaign entitled *Tuberías Limpias*. The campaign aims to educate citizens, establishments, and industries about the proper management of FOG. In addition, the campaign has a presence in mass media and social media.

PRASA continues inspecting businesses under the FOG Control Program, including, among others, food service establishments, car washes, and auto repair shops. The inspection schedule was established according to the prioritization system of the program. During inspections, educational material is provided to business owners and general managers. The total number of inspections conducted from March 2024 through August 2025 by region is included in Figure 6-2. During the inspections, PRASA identifies if any FOG Program violations are observed and reserves the right to stipulate penalties to the business.

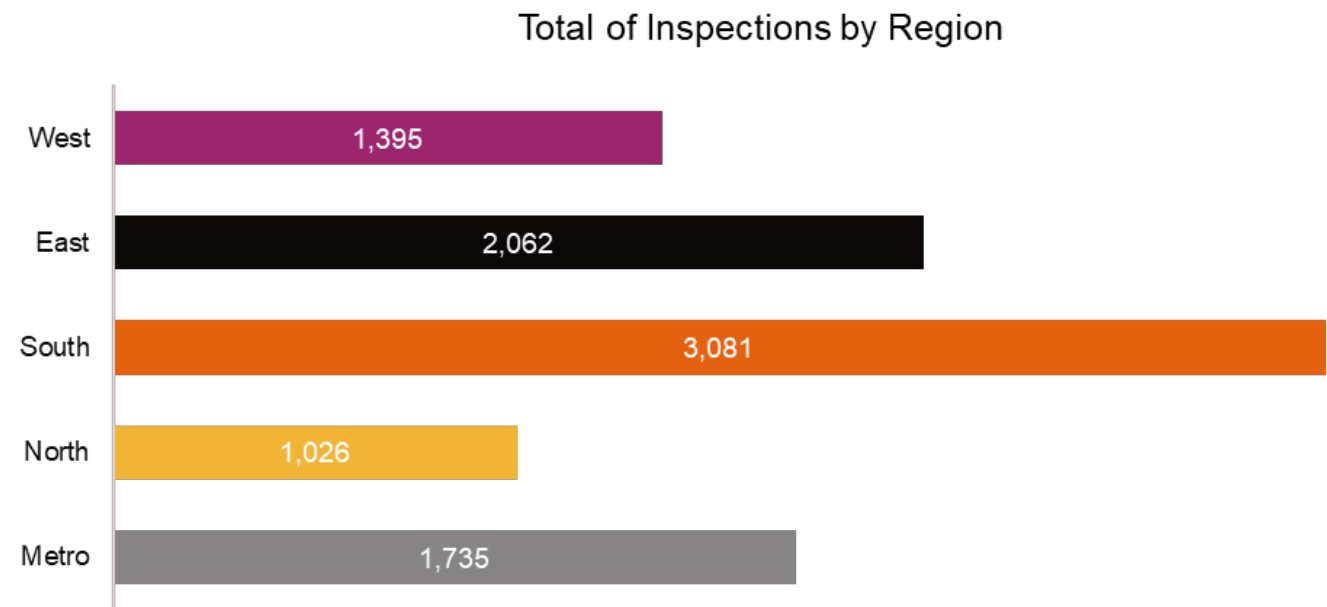


Figure 6-2 FOG Program Inspections Summary from March 2024 through August 2025

SSOs, DWO, and Unauthorized Release

PRASA continues to use the pictographic method approved by USEPA to approximate SSOs or unauthorized releases. This method identifies, through comparison, the approximate overflow rate in gpm. Training on the selected method continues to be provided to PRASA personnel associated with sanitary sewer system duties and the 24-hour overflow notification. During the evaluated period, no DWO events occurred.

In accordance with the CD modifications, PRASA developed and launched a website (Alcantarillado Combinado) that includes information concerning SSOs, unauthorized releases, and CSOs.

6.5.1.2.3 Caño Martín Peña

The Caño Martín Peña projects were not performed during the period evaluated. These projects are contingent upon completing related prerequisite projects to be developed by parties not affiliated with PRASA.

6.5.1.2.4 Puerto Nuevo RWWTP Sewer System Evaluation and Repairs

Barriada Figueroa Project

PRASA completed the requirement stipulated in the Consent Decree for the sewer inventory, and the final mapping report was submitted to USEPA on March 29, 2019.

Sewer System Maps

As PRASA agreed with USEPA, the Puerto Nuevo RWWTP revised maps were included in the consolidated SSOMP Annual Report submitted in May 2025. According to the 2024 SSOMP Annual Report, PRASA continues to expand the management of sewer networks within the Puerto Nuevo RWWTP sewer shed to perform programmatic maintenance efforts successfully. PRASA’s GIS capabilities have been expanded to include tracking SSOMP-funded sewer repairs and retrofits based on previous findings of sewer defects. PRASA’s GIS is continually updated as new information categories are added, and previously captured information is refined.

6.5.1.2.5 Areas of Concern in the Puerto Nuevo RWWTP Sewer System

As stipulated in Paragraph 36 of the Consent Decree, PRASA currently has 17 active Areas of Concern within the Puerto Nuevo RWWTP Sewer System. PRASA continues executing the required interim measures while the sewer system is assessed and repaired, including inspections and educational campaigns in accordance with the Consent Decree.

6.5.1.2.6 Interim Effluent Limits for WTPs and WWTPs

PRASA continues to monitor compliance with the interim and final NPDES limits. Monthly Discharge Monitoring Reports (DMR) following the NPDES permit for WWTPs and WTPs are submitted to USEPA as stipulated in the agreement. As depicted in Figure 6-3, PRASA has a combined (STSS & WWTPs) total of 1,075 active interim limits. The East Region has the highest number of active interim limits for STSS, and the North Region has the highest interim limits for the WWTPs. PRASA uses this dashboard to track when the interim limit for the parameters expires to have enough time to plan and start discussions with USEPA on addressing compliance or renegotiating the limit.

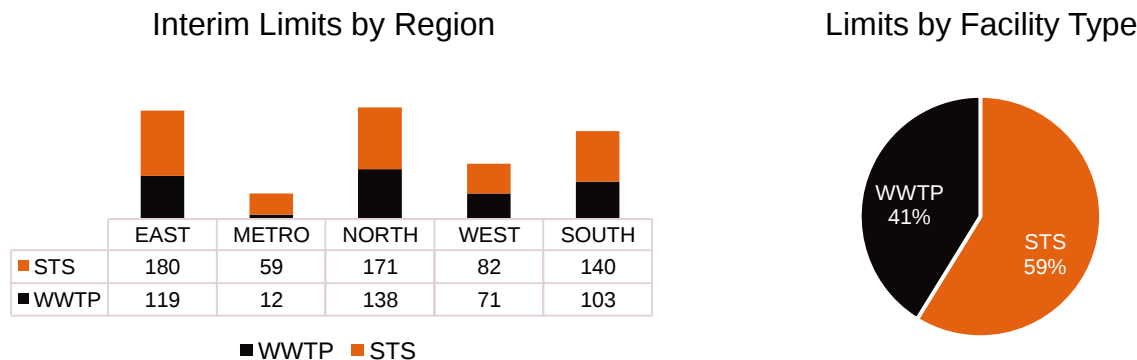


Figure 6-3 Summary of Interim Limits

PRASA continues to seek interim limits protection for NPDES obligations not being complied with, including new restrictive limits of various parameters. PRASA continues to move forward with the CIP planning, design, and construction of several facility improvements that will address treatment process issues and impaired equipment,

among other identified deficiencies expected to decrease non-compliance issues. In addition, PRASA continues to conduct in-depth water analysis to determine feasible technologies that could be considered in projects.

6.5.1.2.7 Integrated Maintenance Program

The IMP continues its main focus to ensure the proper operation and maintenance of its operational facilities through standard procedures across all regions. This includes recordkeeping of assets, planning, and execution of the preventive maintenance plan and corrective maintenance work orders.

PRASA conducts IMP activities mostly by its personnel, while subcontractors and external repair shops complete more specialized tasks to ensure continuity of operations.

From March 2024 through August 2025, PRASA executed 44,756 corrective maintenance and 123,791 preventive maintenance work orders. Field assessments included in the approved Corrosion Control Plan were completed in three phases. Phase IV has started, and it consists of follow-up assessments and documentation to identify funding for potential projects to be included in the CIP. A summary of the reassessment phases and schedule is included in Table 6-7.

Table 6-7 Summary of Field Re-Assessment

Phase	# Facilities	Timeline
Phase I	7 facilities	Completed – October 2023
Phase II	36 facilities	Completed – November 2023
Phase III	378 facilities	Completed – June 2025

In addition, PRASA has defined new strategies for the implementation of this program efficiently and has established the following initiatives:

- Formalized the Corrosion Control Committee, composed of a multi-disciplinary team including Operations, Maintenance, Finance, and Infrastructures. Meetings are held monthly to discuss issues and planning activities.
- Design specifications for materials and construction details to assure corrosion control were being developed and proactively shared with consortium firms to ensure the facility's design or rehabilitation projects meet corrosion control requirements. Considered as part of the facility's design or rehabilitation projects.
- Maintenance staff is involved in rehabilitation, improvement, and design meetings to support and follow up on recommendations related to corrosion control.
- Evaluation of funding mechanisms to address costs associated with corrosion control and facility improvements.
- The Corrosion Control Team continues monthly meetings to discuss program implementation, challenges, among others.
- Established corrosion prevention control guidelines. Findings are documented in SAP to monitor and control the corrective actions and to develop metrics for this program.

- Corrosion training and refresher sessions to learn about this topic, on how to prevent and manage corrosion. PRASA continues collaboration with the PRWEA, promoting and participating in corrosion and water-related topics for continuous education.
- As far as improving preventive measures, corrosion findings have been assigned to operators as part of their regular inspections and tasks.

6.5.1.2.8 Training and Additional Requirements for Operators

The Consent Decree stipulates that all new STS or WWTP operators hired by PRASA must be trained in monitoring, recording, and reporting requirements of the individual NPDES permits as applicable. According to BPR Numbers 18, 19, and 20, PRASA hired a total of 27 operators for STS or WWTP. PRASA offered over 327 training courses for which approximately 48,527 employees participated in in-person and online modalities. Following the recent restructuring of the Training and Continued Education group, improvements to SAP are ongoing to accommodate and adjust the needs as part of the automation process changes regarding PRASA's training program. Implementing online training and digital platform improvements has increased the efficiency of operations.

In addition, PRASA has experienced delays in license renewal or acquisition of new licenses for the treatment plant required category. In such instances, supervisors or managers are responsible for the facility's operation. Therefore, PRASA continued to focus on recruiting personnel to reduce vacancies in these positions.

6.5.1.2.9 Process Control System

The Process Control System (PSC) has been implemented at PRASA's STSs and WWTPs as stipulated by the Consent Decree. PRASA completed the revisions and updates to the PCS manuals at the STSs and WWTPs in all regions.

6.5.1.2.10 Spill Response and Cleanup Plan

PRASA continues to implement the Spill Response and Cleanup Plan (SRCP) to address SSOs, unauthorized releases, and CSOs from all related facilities. An updated SRCP was submitted to USEPA for review and approval, for which training is being evaluated.

6.5.1.2.11 Stipulated Penalties

PRASA continues to monitor and report to the USEPA the NPDES exceedances, including limits, sampling results, and violation codes. On April 24, 2024, force majeure protection was rescinded for Hurricanes Irma and María and COVID-19, and therefore, penalties came into effect as of this date. The total number of penalties conducted from March 1st, 2025, through August 30, 2025, by region is included in Figure 6-4

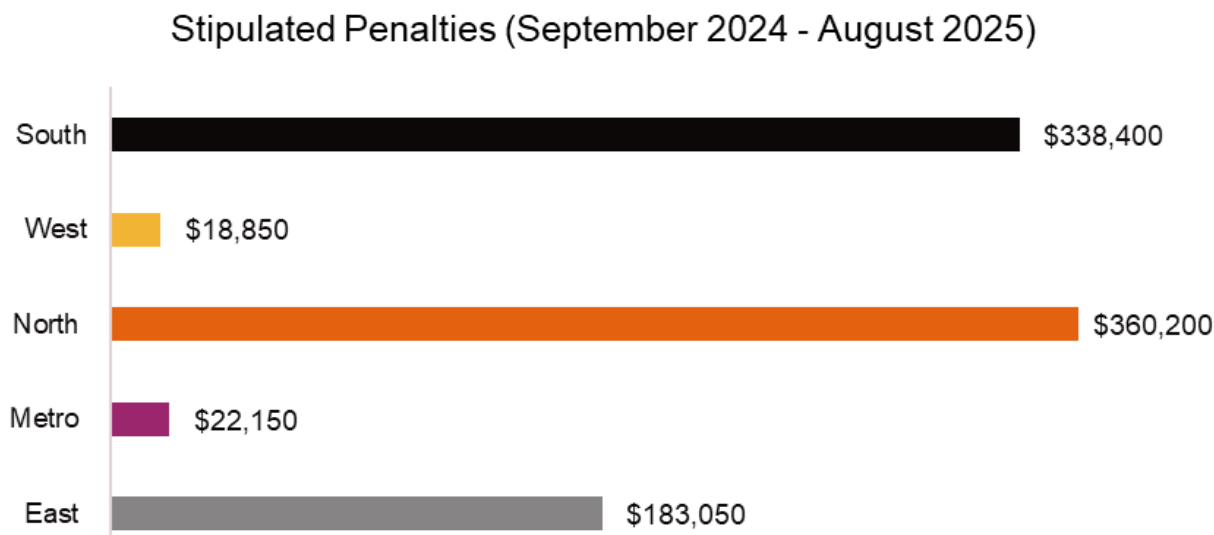


Figure 6-4 Summary of Penalties Accrued by Region

6.5.1.2.12 Wastewater Treatment Capacity and Flow Management

As stipulated in Paragraph 67 of the Consent Decree, PRASA's Existing Sewer Connection Policy, effective management of wastewater treatment capacity is essential for protecting the environment while also allowing economic growth and development in Puerto Rico. PRASA implemented a monthly average permitted flow tracking tool that allows the monitoring, planning, and management of WWTP flows.

6.5.1.3 2006 PRDOH Drinking Water Settlement Agreement

As part of the 2006 Drinking Water Settlement Agreement between PRASA and the PRDOH, PRASA submits a Quarterly Settlement Agreement Report (QSAR) every quarter. Arcadis reviewed QSARs Number 66 through 69, covering the period from July 1st, 2024, through June 30, 2025.

6.5.1.3.1 Remedial Measures

Per the 2006 Drinking Water Settlement Agreement, several remedial actions needed to be implemented in multiple systems or components. These remedial measures were classified as short (LTP1), mid (LTP2), and long-term (LTP3). PRASA completed remedial measures LTP1 and LTP2. A summary of the LTP3 projects and status is included in Table 6-8.

Table 6-8 Long-Term Projects¹

Region	CIP Number	System	Facility	Project Description	Status
East	-	Culebras	Culebras WTP	Flow Meter	Completed
East	-	Río Blanco	El Duque WTP	WTP rehabilitation	Completed

Region	CIP Number	System	Facility	Project Description	Status
East	3-40-6005	Juncos Urbano	Ceiba Sur WTP	WTP rehabilitation	In progress
East	-	Juncos Urbano	Quebrada Grande WTP	WTP rehabilitation	Completed
North	2-38-6049	Canalizo	Canalizo WTP	Improvements and expansion	In progress
North	2-20-6107	Frontón	Frontón WTP	Expansion of WTP: installation of 1.0 MGD module including storage tank, treatment, and telemetry system	In progress
North	2-38-6049	La Pica	La Pica WTP	WTP elimination and water transfer to another facility	In progress
West	5-48-6006 5-48-9001	Monte del Estado	Monte del Estado WTP	Intake and WTP rehabilitation	In progress

¹Source: QSARs Number 66 through 69.

LP3 outstanding projects have been included under the CIP projects of the Infrastructure Department with expected completion dates between 2027 and 2028.

The Continuous Monitoring Program is implemented at all WTPs. At each filter, effluent, and CFE, turbidity analyzer equipment is installed for continuous monitoring and data reporting to the PRDOH. Also, an in-line chlorine residual analyzer is installed before the first customer for continuous monitoring and data reporting to regulatory agencies. In addition, PRASA calculates and reports the Contact Time (CT) as part of the Continuous Monitoring Program monthly requirements. PRASA continues to perform field verification of continuous monitoring equipment installed in treatment facilities to ensure its adequacy and condition for accurate data gathering, reporting, and regular maintenance procedures. In some facilities, equipment was installed in safety hazard locations, limiting its assessment. CIP projects will include these deficiencies as part of the facilities' improvements.

PRASA developed and implemented the Optimization Program and site visits to the water facilities. In addition, the program was expanded to include procedures to reduce, manage, and maintain DBPs. PRASA established process controls for reducing turbidity and organics at WTPs. Currently, PRASA continues identifying resources to perform studies and evaluations for chemical optimization. PRASA implemented preventive measures on those systems with frequent DBP violations. The progress and status of the program are summarized in QSAR reports.

6.5.1.3.2 Preventive Measures

As stipulated in the Agreement, the Preventive Measure Program is intended to prevent future violations in PWS. The program requires implementing preventive measures to establish operational controls and vigilance measures to eliminate or minimize violations for the following parameters: Bacteriology, Turbidity, DBPs, and Nitrates. During the evaluation period, PRASA complied with the preventive measures for Bacteriology, Turbidity, and Nitrates. PRASA continues to evaluate and execute operational adjustments to systems with exceedances in DBPs, including but not limited to pre- and post-chlorine applications, CT calculations, continuous flushing program, sample point relocations, and training. To be proactive on the course of action to address potential exceedances, a threshold of 75% of the maximum contaminant level (MCL) is used to trigger the operational adjustments.

mentioned previously. Due to the effort over the years in establishing practices and protocols in addition to training, DBPs have become part of the routine operations of PRASA staff.

6.5.1.3.3 Integrated Maintenance Program and Standard Operating Procedures

The IMP aims to ensure the PWSs are operated and maintained in optimum condition. Minimum program requirements established in the Agreement include equipment logs, record keeping/archives, log sheets of activities, maintenance schedule, inventory and storage, and repair action plan. As the QSARs indicate, this program is fully implemented, while PRASA maintains metrics and monitors its execution utilizing SAP PM software. The following initiatives were included in FY2025:

- Ongoing effort to encourage the utilization of SAP PM at the WTPs and WWTPs. Currently, a refresher training is being offered and is expected to be completed in FY2025.
- Completed the integration of the Optimization Plans in SAP PM, which is utilized to process work orders in accordance with the established procedures.
- In the process of contracting services for training in corrosion control. The training plan is expected to be developed in FY2025.
- Continue evaluation of bids for services of calibration and telemetry for contract renewal.
- Ongoing training coordination and execution.
- Updated mobile devices for work order management. Acquired 100% of the devices and established metrics to ensure their effective use and best practices.

Additional initiatives are described under section 6.5.1.1.7 as part of the Consent Decree.

6.5.1.3.4 Operators Training and Licensure

The Operator Training and Licensure Program establishes that PRASA must train all operators and supervisors who work in a PWS and ensure that they are certified in a licensure category according to the facilities they are responsible for. In 2025, PRASA identified 53 employees required to be enrolled in the training program, of which there were still 20 employees pending completion of the training requirements. PRASA continues efforts to improve training participation.

6.5.1.3.5 Stipulated Penalties

PRASA incurred penalties for exceeding the primary standards, required deliverables, remedial measures, and credit for mitigation measures. Figure 6-5 illustrates the penalty distribution by category and region.

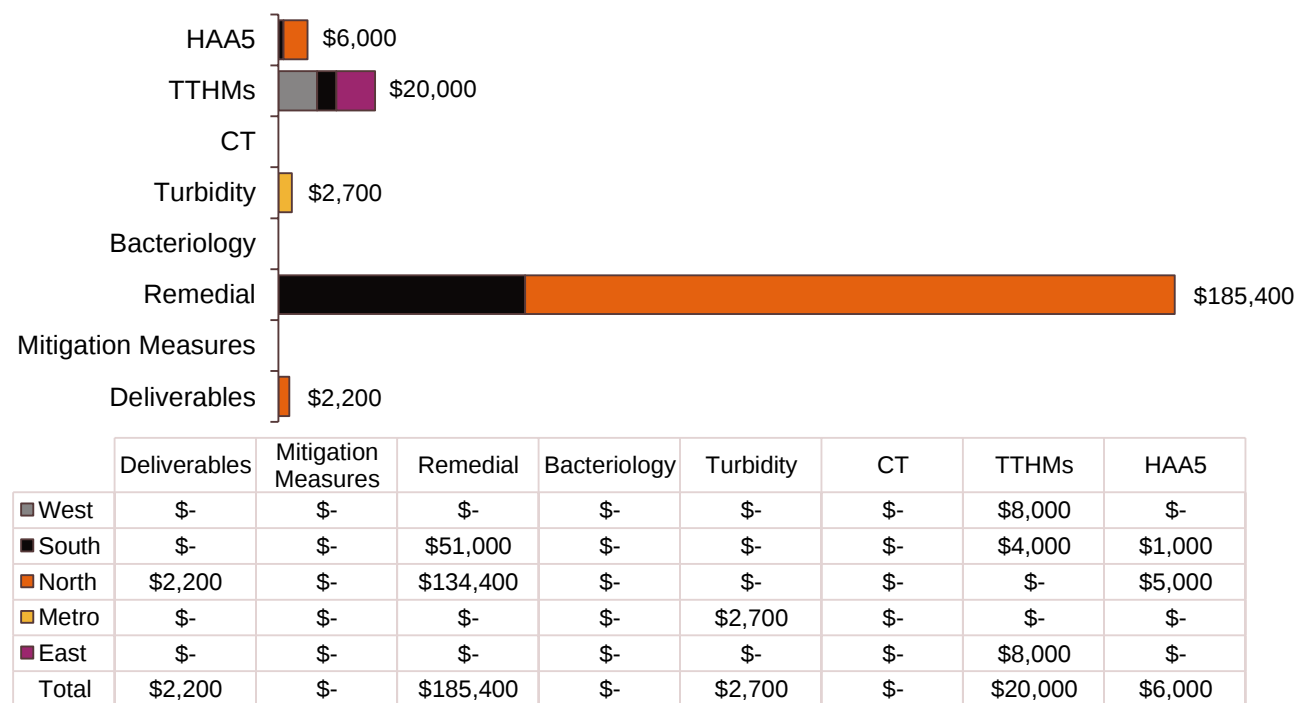


Figure 6-5 Stipulated Penalties (QSARs 66-69)

During the period evaluated, the penalties totaled \$216,300. As depicted in Figure 6-6, Remedial Measures was 87%, while the Primary Standard TTHM category was 9% of the total penalty amount. This represented an increased in the Remedial Measures and a reduction in the TTHMs compared to the previous period. Primary Standard HAA5 and Turbidity represent 3% and 1%, respectively, of the penalty amount.

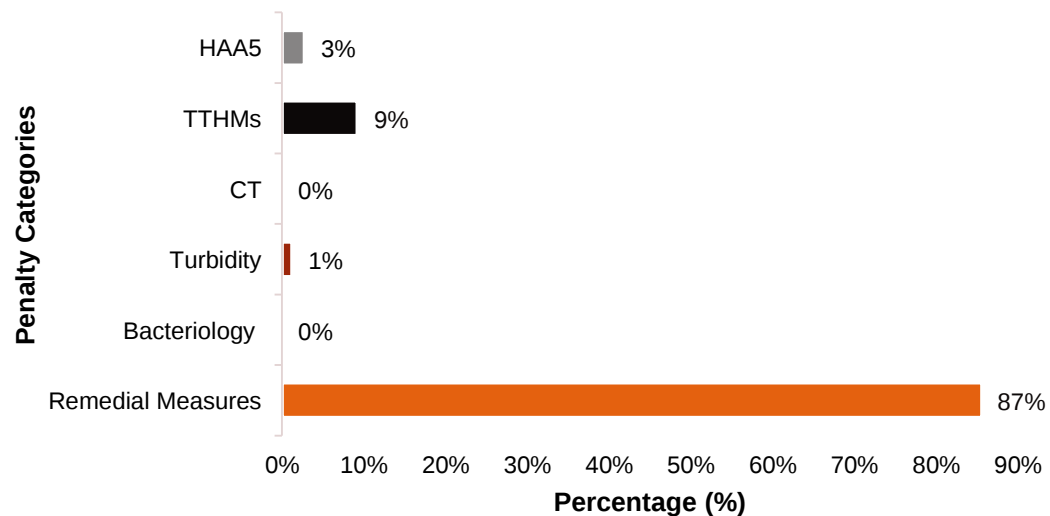


Figure 6-6 Percentage of Penalty Categories

6.5.1.3.6 Future Violations – Action Plans

The Future Violations Program requires implementing action plans approved by PRDOH that include remedial and/or corrective measures to address non-compliance and systems incurring violations of Disinfection Byproducts (DBP), TOC, Long-Term 2 Enhance Surface Water Treatment Rule (LT2ESWTR), and exceedances of lead and copper action levels. Figure 6-7 illustrates the number and status of Action Plans by region.

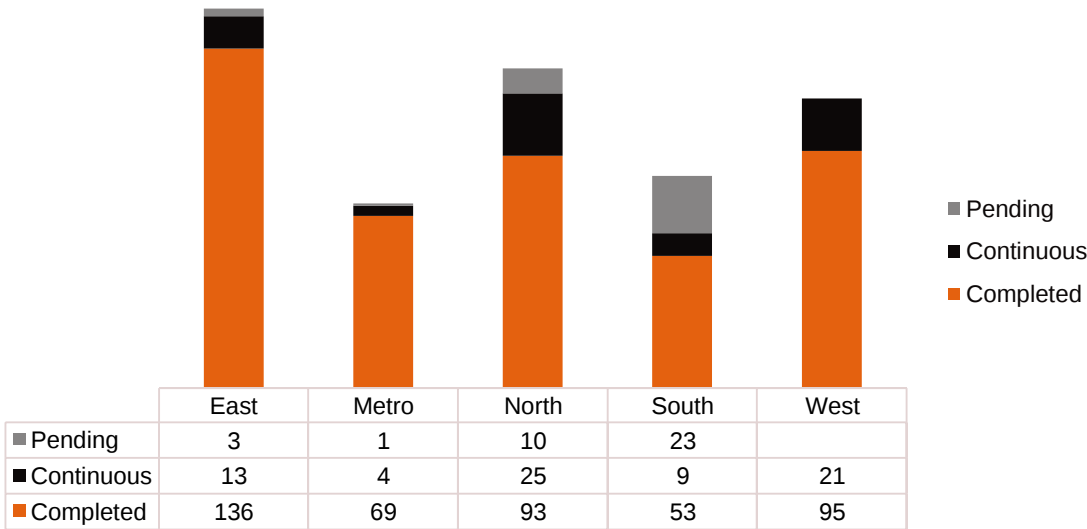


Figure 6-7 Future Violations – Action Plans by Region

There are 37 pending action plans as of July 2025. PRASA is working to address the pending action plans and, in some cases, has requested a time extension from the regulatory agency to meet the requirements.

Following the Agreement, once the action plans are developed and approved, PRASA and PRDOH shall request the USDOJ to file a joint motion for the remedial measures action plan to become part of the Settlement Agreement formally.

During the period evaluated, the following joint motions were issued to the USDOJ:

- Lares Espino WTP LT2 Joint Motion.
- Ponce Nueva WTP Joint Motion to amend Remedial Measure.
- Juncos Urbano's remedial measures and interim measures.

During the period evaluated, there were several certifications issued to the PRDOH certifying the completion of remedial measures.

6.5.2 Current Applicable Drinking Water Regulations

PRASA is subject to the SDWA requirements of 1974, as amended in 1986 and 1996. The amendments extended the regulatory responsibility of the USEPA to set national health-based standards for drinking water to protect against naturally occurring and man-made contaminants that may be found in drinking water. SDWA amendments enhanced the existing law by recognizing source water protection, operator's training, funding, and public information as important components for safe drinking water.

Applicable regulatory requirements for PRASA and implementation status are summarized in Table 6-9.

Table 6-9 Regulatory Requirements

Regulatory Requirement	Summary of Requirements	Implementation Status
Surface Water Treatment Rule	Require systems that use surface water sources or groundwater sources under the direct influence of surface water (GWUDI) to filter and disinfect water sources.	Implemented
LCRR/LCRI	The Lead and Copper Rule Revisions (LCRR) were revised in 2021. Requires systems to develop a service line inventory to identify and remove lead service lines (LSL) to eradicate potential exposure to lead in drinking water. Further revisions of the rule, denominated as Lead and Copper Rule Improvements (LCRI), set the compliance date for November 2027.	In progress
Revised Total Coliform Rule	The Total Coliform Rule requires water systems to routinely monitor for total Coliforms at specific locations throughout the distribution system.	Implemented
Disinfectants and Disinfection By-products Rule (Stages 1 and 2)	This rule regulates levels of disinfectants and DBP. USEPA expects to finalize the rule revision by February 2028.	Implemented
Consumer Confidence Report Rule	Requires PRASA to issue an annual report on treated water quality to its consumers. The final revised rule was published on May 14, 2024. Compliance effective date in 2027.	Implemented
Ground Water Rule (GWR)	The GWR is designed to reduce disease incidence associated with harmful microorganisms in drinking water and enhance groundwater users' protection from fecal contamination.	Implemented
Chemical Contaminants Rules	The Chemical Contaminant Rules regulate over 65 contaminants in three categories: inorganic contaminants, volatile organic contaminants, and synthetic organic contaminants.	Implemented
UCMR	The SDWA requires that once every five years, the USEPA issue a new list of no more than 30 unregulated contaminants to be monitored by select public water systems. UCMR 5 requires sample collection for 30 chemical contaminants with a sampling schedule from 2023 through 2025. UCRM5 sampling is ongoing.	In progress
PFAS National Primary Drinking Water Standard	EPA established a final MCL of 4.0 nanograms per Liter (ng/L) or parts per trillion (ppt) for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). For PFHxS, PFNA, and GenX Chemicals, MCL is 10 ppt and 1 (unitless for mixtures containing two or more of these chemical contaminants, meaning any combination exceeding that index would be considered a violation).	In progress

The UCMR 5 was published on December 27, 2021. UCMR 5 requires sample collection for 30 chemical contaminants between 2023 and 2025 using analytical methods developed by USEPA and consensus organizations. Consistent with USEPA's PFAS Strategic Roadmap, the Fifth Unregulated Contaminant Monitoring Rule (UCMR5) will provide new data that is critically needed to improve USEPA's understanding of the frequency with which 29 PFAS are found in drinking water systems and at what levels. This data will ensure science-based decision-making and help prioritize the protection of disadvantaged communities. UCMR5 sampling efforts are ongoing.

PFAS are man-made chemicals used in various industries and consumer products, such as carpeting, apparel, upholstery, food paper wrappings, fire-fighting foams, and metal plating. PFAS are prevalent in the environment, and studies have shown them at extremely low levels to have adverse human health effects. The final rule was published on April 10, 2024. USEPA established legally enforceable levels for six PFAS in drinking water: PFOA, PFOS, PFHxS, PFNA, and HFPO-DA as contaminants and PFAS mixtures containing at least two or more of PFHxS, PFNA, HFPO-DA, and PFBS. According to the UCMR5 Data Finder, PRASA has sampled approximately 99 water systems for a total of 20,217 results. The final rule requires:¹⁵

- Public water systems must monitor for these PFAS and have three years to complete initial monitoring (by 2027), followed by ongoing compliance monitoring. Water systems must also provide the public with information on the levels of these PFAS in their drinking water beginning in 2027.
- Public water systems have five years (by 2029) to implement solutions that reduce these PFAS if monitoring shows that drinking water levels exceed these MCLs.
- Beginning in five years (2029), public water systems that have PFAS in drinking water that violate one or more of these MCLs must take action to reduce levels of these PFAS in their drinking water and must provide notification to the public of the violation.
- USEPA is considering extending compliance deadlines from 2029 to 2031, offering relief to water systems.

6.5.3 Current Applicable Wastewater Regulations

PRASA is subjected to the CWA enacted in 1948, reorganized, and expanded with amendments in 1972. The CWA establishes the structure for regulating the discharging of pollutants into the waters of the U.S. and regulating quality standards for surface waters. As a result, the NPDES permit program was developed to control what a municipal facility can discharge and establish monitoring and reporting requirements and other stipulations to protect human health and the environment. PRASA has NPDES permits in place for all WWTPs and STS facilities that meet the criteria as required by the regulation. Also, PRASA performs sampling for parameters at the required frequency as established on the NPDES permit, and reporting procedures are recorded on the DMR. PRASA's Compliance Department has a procedure implemented to ensure NPDES permit renewal occurs within the required period.

Regarding biosolids requirements, the Standards for the Use or Disposal of Sewage Sludge regulates sewage sludge applied to land, fired in a sewage sludge incinerator, or placed on a surface disposal site. It includes pollutant limits, requirements for pathogen and vector attraction reduction, management practices, monitoring, recordkeeping, and reporting, among other requirements. The constituents removed in WWTPs, composed primarily of grit, scum, sediment, and biological solids, are known as sludge or biosolids, depending on whether

¹⁵ <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>

they have been stabilized or not. PRASA performs a Semi-annual Compliance Report on Sludge Management per the 40 CFR Part 503 of the Code of Federal Regulations.

Although several sludge handling methods are in use, a thorough evaluation is necessary to develop a sustainable solution for the overall program. Continued dependence on landfilling of wastewater solids could place PRASA's wastewater and water treatment operations in jeopardy, depending on the capacity and availability of current landfills. Improving the diversity of sludge management by PRASA will require investment in capital, operation, and maintenance resources for existing operations and future facilities.

6.6 Future Regulations and Other Regulatory Requirements

The CIP was evaluated for adequacy to comply with future regulations and other regulatory requirements that could impact compliance limits for PRASA's water and wastewater facilities. Concerning the water systems' new discharge limits for residual chlorine, total nitrogen, and total phosphorus, PRASA mostly uses interim limits due to its inability to meet the stringent permit limits. Despite PRASA's compliance with the interim limits, the permit limits established for the parameters are very restrictive. They have resulted in a challenge for PRASA to implement available treatment technologies to comply with the permit requirements. PRASA is evaluating available technologies and/or the consolidation of facilities that could be considered to meet permit requirements. In addition, this challenge has been brought up to the regulatory agencies to explore alternatives to re-evaluate these stringent permit limits.

Regarding wastewater collection systems, PRASA has indicated that once the sewer system improvements in the Puerto Nuevo RWWTP service area are completed, it will expand the program to the rest of the Metro Region and, eventually, to the rest of the island (where applicable). At this time, PRASA does not have a specific timeframe for when this will occur.

6.7 Conclusions

PRASA's comprehensive six-year CIP addresses the System's needs and fulfills PRASA's commitments to reconstructing the damage caused by the 2017 Hurricanes, the 2020 Earthquakes, and 2022 Hurricane Fiona, and regulatory requirements. The CIP encompasses a wide range of projects identified by PRASA, as mandated by the Consent Decree and Settlement Agreement, to meet current and future needs. It allocates funding for minor and major repair projects in various categories. Most of the projected CIP investment over the six years is dedicated to Reconstruction and Recovery, Mandatory Compliance, and Mitigation and Resiliency projects. PRASA's six-year CIP also provides funding for essential quality improvements and other infrastructure projects, including water meter replacement, fleet, generators, non-mandatory compliance, and safety measures, which are crucial for maintaining and preserving utility assets. However, the updated methodology for prioritizing all projects was not completed in the 2024 Master Plan. Therefore, to ensure the implementation of future long-term projects and the availability of funds, it is essential to develop a new prioritization system.

While PRASA has made initial efforts to assess the potential impact of forthcoming regulations, the full extent of their impact on PRASA's System remains uncertain. Some regulations may necessitate minor process adjustments, while others may require significant capital investments, such as constructing new treatment processes or intensive repair and replacement programs. PRASA remains attentive to potential future regulations, including the LCRR and

PFAS, which could affect the System and compliance requirements. PRASA has encountered additional compliance challenges concerning NPDES permit limit requirements for WWTPs and STS at the WTPs. In recent years, NPDES permit limits have become more stringent for certain parameters like total nitrogen, total phosphorus, and residual chlorine, among others.

However, as the impact of future regulations becomes clearer and NPDES permit limits become more stringent, modifications to the CIP may be necessary to address the resulting needs adequately. Consequently, the reprioritization of CIP requirements and implementation schedules will depend on PRASA's financial capacity.

7 Insurance Program

7.1 Introduction

Section 7.08 of the MAT establishes that “PRASA shall employ an Insurance Consultant to review the insurance program of the Authority from time to time (but not less frequently than biennially). In the event that the insurance Consultant makes recommendations for the increase of any coverage, PRASA shall increase or cause to be increased such coverage following such recommendations, subject to a good faith determination of PRASA that such recommendations in whole or in part are in its best interest.”

Arcadis engaged MARSH Puerto Rico, Inc. (MARSH) to review PRASA's current insurance coverage and determine its adequacy, considering the type and value of PRASA's fixed assets. MARSH also provided a professional opinion on the appropriateness of such coverage and recommendations related to PRASA's insurance coverage, as detailed in the following sections. For FY2025, PRASA's Broker of Record (BOR) remained Fedelta Insurance, except for the Property Policy, in which Lone Star Insurance was the BOR. The data, opinions, and comments included in this section have been based solely on PRASA's copies of policies for FY2025 provided by PRASA for this purpose, unless stated otherwise.

7.2 Risk Management

Risk is exposure to loss. It is the chance of something happening that will lead to a loss or an undesirable outcome, and it is measured in terms of consequences and likelihood. Risk management is an effective process directed toward managing risks and hazards to produce a desired set of results.

The treatment of risk takes the following forms:

- Loss control:
 - Elimination or reduction of risk by physical, technical, or mechanical means, loss prevention techniques, and loss prevention engineering.
- Contractual transfer:
 - Hold harmless agreements and indemnity agreements in contracts with suppliers, contractors, service providers, and customers.
- Transfer of risk through insurance:
 - Self-insurance.
 - Insurance policies and coverage are available from insurance companies.
 - Insurance products/programs available from the government's FEMA and the state (Commonwealth of Puerto Rico), including workers' compensation and health/medical coverage, among others.

7.2.1 PRASA Insurance Department

The risk management function is an integral part of the management function. Within PRASA, risk identification and treatment are performed by all departments at all levels in conformity with local and federal regulations, including the Occupational Safety and Health Administration (OSHA) regulations. Risk management is applied through the

employment of independent engineering and consulting firms in planning, design, and construction, and the implementation of excellence in practices and processes. Furthermore, new construction is carried out in accordance with applicable building codes and regulations.

7.2.2 Identification of Risk

The risks affecting PRASA can be broadly categorized as follows:

1. Risks to property, facilities, and physical assets from natural and human causes.
2. Financial risks arising from damage to or loss of physical assets, such as loss of income, interruption of operations, and increased operating expenses to continue operations.
3. Financial risks resulting in management liability related to economic downturns.
4. Regulatory issues that might result in liability or service interruption.
5. Theft of owned and non-owned property.
6. Theft of water production.
7. Liability risks, including suits from third parties for injury or loss of property, fines/penalties, injuries caused by vehicles or properties, advertising injury, products, libel, slander, false arrest/detainment, and injuries occurring on or off-premises.
8. Pollution liability claims and fines.
9. Public authority/errors and omissions (E&O) liability arises from the financial loss incurred by others that does not result in physical injury to persons or property.
10. Reputation risk includes incidents, events, or human actions that seriously damage the organization's image and reputation.
11. An epidemic or pandemic that causes widespread injury or sickness to PRASA employees.
12. Kidnap, ransom, extortion risks.
13. Privacy and cyber liability arising from alleged failure to secure customer data adequately.
14. Acts of terrorism affecting PRASA's facilities or customers.
15. Strikes and labor unrest cause loss of income, interruption of operations, and increased operating expenses to continue operations.

7.3 Assessment of Insurance Program

This section of the Report provides MARSH's summary and recommendations concerning PRASA's insurance policies for FY2025.

7.3.1 Property Insurance

The following are the findings and recommendations under the Commercial Property Program currently placed through MAPFRE and London Markets covering the period from April 1st, 2024, to April 1st, 2025. Additionally, MARSH reviewed and compared the Commercial Property Insurance Programs for the PRASA for the year 2025-2026. There were no significant changes between the policy terms of April 1st, 2024, to April 1st, 2025, and April 1st, 2025, to April 1st, 2026. Limits and values remained the same.

- PRASA's schedule of values amounts to \$12,865,520,402 of property. PRASA's property is insured by a policy issued by MAPFRE (75% of participation). It includes "London Markets" (25% of participation) in the policy as "subscribers", meaning they have agreed to bear their specific percentage portion of each loss for all covered

perils, including CAT perils. Self-insured retention (SIR) of \$100,000. For flood and earthquake insured by a policy issued by MAPFRE (42% participation), and includes “London and International Market” (58% of participation).

- Coverage is written on an “all risks” basis. The policy insures real property (Dams, WTPs, WWTPs, WSTs, WPSSs, WWPSs, water meters, Wells, and buried infrastructure, among others, included in the policy), business personal property, and covers business interruption resulting from covered physical damage/loss to property.

Major policy limits and deductibles are shown in Table 7-1.

Table 7-1 Property Coverage, Limits, and Deductibles

Coverage	Limit	Deductible
Total Insurable Value (TIV)	\$12,865,520,402 (Meters: \$53,167,770) (Business Personal Property: \$117,700,000) (Business Income: \$600,000,000)	1.16% AOP/WIND 2.33% Flood/EQ
All Other Perils (AOP), including CAT Perils	\$150,000,000 Xs deductibles	\$100,000,000 Any on Loss
Earthquake and Flood (Not including wind-driven water)	\$150,000,000 Xs \$150,000,000 Xs deductibles	
Total	\$300,000,000	\$100,000,000

7.3.2 Policy Observations and Recommendations

MARSH made the following recommendations regarding PRASA's property insurance policy:

1. The Named Insured under the Extended Named Insured and Conditions (page 1 of 37) of the Property Program should read PRASA & “*Autoridad de Acueductos y Alcantarillados de Puerto Rico*” &/or Commonwealth of Puerto Rico &/or Treasury Department c/o Bureau of Public Insurance.
2. MARSH recommends the Business Description throughout the Policy Contract to read *Government-owned Water Company, including but not limited to Dams, Water Distribution, WTPs, WWTPs, as per Organic Law 40, May 1st, 1945, as amended*.
3. Policy Period: Amend the period time on Page 2 of 5 to read: *12:01 noon* (Form IL 1201).
4. Interest Coverage: The definition of Coverage, Property, under Conditions, Item 5 (Page 1 of 37), should explicitly include coverage unless insured under the Owner Controlled Insurance Program (OCIP), to avoid limitations under the “OTHER COVERAGE” condition.
5. Additionally, the general conditions (Page 7 of 37, Item 13 – Other Insurance) states that if “there is other insurance other than excess insurance, contributing insurance, or underlying insurance, in force which would attach if this insurance had not been affected, then this insurance shall apply only for the difference between

the amounts insured elsewhere under such other insurance and the applicable limit or sublimit of this Policy. In other words, this policy will only cover the amount that exceeds the limits of any other applicable insurance, such as the OCIP.

6. Deductibles: The policy provides coverage in excess of a \$100,000,000 deductible/SIR for Property Damage and Business Interruption combined, per occurrence (Page 2 of 37). Given that a lower deductible is not negotiable, we recommend conducting a Claims Analysis to review loss experience. Using the current average rate of 0.1798% per \$100 of insured limits, PRASA should evaluate the necessity of insuring specific properties such as Meters, Wells, Personal Property, and Water and Wastewater Pumps.
7. On Page 7 of 37, Item 9 Cancellation, the time frame for notification of cancellation and the earned premium computation being provided (short rate if cancelled by Assured) does not match the requirements presented by the Area of Public Insurance of the Department of Treasury (DOT). As per said Government Requirements, a written cancellation notice should be given with at least 90 days' prior notice, instead of the 45 stated, and for non-payment of premiums, a 45-day written notice is required (Currently under contract, 10).
8. On Page 8 of 37, Item 14, Audit. It allows insurers to audit PRASA's books and records during the policy period and up to three years post-termination, potentially leading to retroactive premium increases. Given PRASA's fixed fiscal budget, such adjustments could disrupt financial planning.
9. Furthermore, Clause 21 (Coinsurance) (Page 9) confirms the underwriters' acceptance of the declared total property value of \$12,865,520,402, negating the need for valuation audits. We recommend deleting this clause.
10. Also on Page 8 of 37, Item 15, Misrepresentation and Fraud. It should be clearly stated that this clause does not apply to unintentional errors or omissions related to material facts, circumstances, or insurable values for commercial property, especially since the carriers have acknowledged coverage of 100% of the TIVs for the entire policy term.
11. On Page 9 of 37, Item 20, Margin. It allows insurers to charge additional premiums if insurable values at policy expiration exceed those at inception by more than 5%. This could impact PRASA's budget and requires careful monitoring.
12. On Page 10 of 37, Section 24, Off-Premises Services Clause, includes an exclusion for Overhead Transmission Lines from utility interruption coverage. If this exclusion remains, consideration should be given to the proximity of these lines to PRASA's premises, as outages can cause significant expenses. We recommend that said exclusion be deleted.
13. On Page 12 of 37, Section 4. Property Excluded:
 - a. Glass should NOT be excluded.
 - b. Excavations, grading, and fillings should be deleted from the Policy Contract, particularly if excavation costs are included in the property values. Excavation represents a substantial portion of the total construction cost for buried infrastructure; therefore, excluding this coverage could prevent the proper and timely recovery of sufficient funds to cover any insured loss sustained.

If Insurance Carriers persist in excluding these significant and critical costs from coverage, the insurable limits must be adjusted downward to reflect these exclusions, in order to avoid paying premiums for coverage that cannot be recovered.

- c. Excludes coverage for above-ground electrical transmission and distribution lines, poles, and related equipment—including supporting structures, wires, conductors, and cables—except when these are located within 1,000 feet of the Assured's generating facilities. This exclusion does not apply to Business Income and Extra Expense Coverage, but it is limited to property owned by PRASA.

If the intention is to provide coverage for electrical transmission lines within 1,000 feet regardless of ownership, then the same one-thousand-foot distance limitation should also be included in Clause 24, Off Premises Services Clause, on page 11 under General Conditions.

14. On pages 12 to 37, Section 5. Perils Excluded, Basis of Indemnification, states “substantially the same but not better or more extensive”.
15. The most common basis of indemnification in a Commercial Property Policy is Replacement Cost, which is defined as the cost to repair or replace damaged property with materials of “like kind and quality.”
16. Both bases of indemnification intend to ensure the insured does not “gain” from an insured loss. However, product development and technology continuously improve, sometimes offering better performance and greater efficiency at a lower cost.
17. Given this, an exception to the “substantially the same but not better or more extensive” rule should be considered, taking into account the function and value of the damaged property or equipment.
18. Finally, regarding Water Inventory, it is recommended to use a Selling Price Clause for finished water stock losses in the event of a covered loss. This would broaden coverage to include not only the physical loss but also the expenses incurred in producing consumable water and the associated profits.
19. On Page 29 of 37, Addendum B, Asbestos Endorsement, Windstorm is currently excluded from the Listed Perils and should also be included.
20. On Page 11 of 37, Definition of Loss Occurrence. It states under Condition ii.) that the time period is “72 consecutive hours as regards earthquake, seaquake, tidal wave.” However, under ISO Form CP 1042, Puerto Rico Earthquake and Volcanic Eruption Endorsement, the time period is established as 168 consecutive hours, or seven days.
21. Reducing the time period in the definition of loss occurrence increases the possibility that carriers may divide a single event into multiple occurrences. This could result in the application of multiple deductibles or SIRs, thereby reducing the total amount recoverable.
22. It is advisable to align the definition of loss occurrence with the ISO standard of 168 consecutive hours (seven days) for earthquake-related events. This alignment would help prevent carriers from splitting a single event into multiple occurrences and ensure more favorable recovery terms.
23. FEMA Requirements - It is imperative for PRASA, as a participant under the Robert T. Stafford Act, to comply with FEMA's Obtain and Maintain requirements and other federal or local mandates. Any coverage, limits, conditions, exclusions, or deductibles that could impair PRASA's ability to recover from future catastrophic events must be addressed. Full compliance, including submission of an Increase Cost of Compliance (ICC) letter through the Puerto Rico Insurance Commissioner's Office, is essential to secure grants and assistance.

7.3.3 Recommendations Unrelated to Policy Contract

This section summarizes general concerns and recommendations made by MARSH.

1. **Cost Assets Evaluation:** Upon review of Endorsement B, Schedule of Values (Page 11 of 11), we noted that the sum of all Subtotal Limits—including Office and Laboratory Equipment, Meters, Business Personal Property, and Business Income—does not reconcile with the Total Insured Value of \$12,865,520,401.53. Further comparison between the endorsement and the insurance slips reveals discrepancies in the reported values for WTPs (\$1,730,259,158 vs. \$1,841,422,497) and WWPS (\$546,312,037 vs. \$543,908,672). These differences total approximately \$108,759,974 and require immediate revision to ensure accuracy.

While the policy's General Conditions (Page 10 of 56, Clause 21. Coinsurance) affirm that the underwriters have accepted the declared total value of USD 12,865,520,402 as the true value of the insured property, Clause 20 (Margin Clause) on the same page mandates that the Statement of Values must represent **100% of the total values of all property insured under this policy**.

Moreover, the Margin Clause specifies that if the declared values differ by more than 5% from those reported at inception or the previous anniversary date, the premium for the annual period must be adjusted on a pro rata basis according to the slip rates, reflecting any increase or decrease in values.

In this case, the identified difference of approximately **0.85%** is below the 5% threshold specified in the Margin Clause. Therefore, this difference does **not** constitute a violation of the Margin Clause. However, it remains a cause for careful revision and reconciliation of the values to avoid potential issues related to improper coverage, premium adjustments, or claim disputes. This revision and reconciliation would necessitate an asset valuation/appraisal to be performed.

Finally, Clause 14 (Audit) on Page 9 of 56 grants the insurers the right to examine and audit the insured's books and records at any time during the policy period, its extensions, and up to three years after policy termination, to verify matters related to the insurance coverage.

In summary, the discrepancies identified between the declared values and the slips, as well as the inconsistency in the Schedule of Values, raise concerns regarding compliance with the policy's requirements. Accurate and consistent valuation is critical to avoid premium adjustments, ensure proper coverage, and comply with audit provisions.

We recommend a thorough review and correction of the reported values to align with the policy terms and avoid potential coverage or premium disputes.

2. **Probable Maximum Loss (PML)**: The PML estimates the maximum financial loss, often expressed as a percentage of the TIVs at risk, resulting from various catastrophic event scenarios. These scenarios are based on historical magnitudes of each peril, expressed in return periods (the higher the return period, the stronger the event).

Water companies rely heavily on their underground pipelines and related assets, and PRASA is no exception. Notably, 48.77% of PRASA's TIVs are attributed to its buried infrastructure. These assets are highly susceptible to catastrophic perils, especially earthquakes. This vulnerability explains the higher insurance limits under the Property Insurance Program for earthquakes, hurricanes, and other perils, as well as for uninsurable conditions such as corrosion and wear and tear.

Table 7-2 below shows the ratios relative to the TIV of \$ 12.8B, considering the insurance limits carried and adding the Deductible/Self-Insurance Retention of \$100,000,000.

Table 7-2 TIV

Perils Insured	Limit + Ded	Ratio
AOP and Wind	\$250,000,000	1.94%
Earthquake and Flood	\$400,000,000	3.11%

According to the Munich Re Risk Suite, Puerto Rico is classified as Zone 2 – Modified Mercalli 7 for earthquakes, indicating a moderate risk of loss and requiring earthquake-resistant design and construction. However, the west side of Puerto Rico, Vieques, and Culebra fall under Zone 3 – Modified Mercalli 8, which implies severe intensity and stricter construction standards.

Recent PML studies conducted by MARSH for above-ground structures—including pipes, flues, and drains—have estimated earthquake loss ratios between 3.6% (for a 250-year return period) and 6.4% (for a 500-year return period). The 250-year return period is the standard used by insurers when purchasing reinsurance treaties and catastrophic coverage.

Considering all of the above, we strongly recommend conducting a comprehensive PML study to establish the expected severity of ground shaking from potential earthquakes and to assess the adequacy of the current Earthquake Peril Insurable Limits.

3. **\$100,000,000 Deductible/SIR:** As a measure to control annual premium costs, PRASA's Commercial Property Deductible/SIR has been increased to \$100,000,000, with no material changes made to the insured properties or their limits.

Typically, when deductibles or SIRs are raised significantly, a thorough Loss Experience Analysis is conducted to assess the impact relative to the insured items and to determine the Total Cost of Risk. Based on this analysis, PRASA may consider removing certain properties from its insured values to reduce premium costs. These items typically have no past claim activity; any potential claims would likely fall within the deductible amount, and the properties are geographically dispersed across Puerto Rico. Essentially, PRASA would assume these risks rather than insure them. The resulting premium savings could then be used to establish a fund to cover non-catastrophic losses.

By dividing the annual premium of a commercial property program by the TIVs, an Average Rate is derived. This rate allows for the estimation of annual premium costs for individual insured items. For the current commercial property program under evaluation, we have determined the Average Rate to be 0.1798%.

Table 7-3 below shows examples of certain properties that PRASA may consider removing from its insured limits based on the above analysis and the potential savings implications.

Table 7-3 Examples of Potential Savings on Insured Limits

Property Covered	Limits of Insurance	Estimated Annual Cost
Business Personal Property	\$117,700,000	\$211,659
Offices/Laboratories	\$67,342,815	\$121,102
Waters Meters	53,167,770	\$428,372

7.3.4 Crime

PRASA maintains a Commercial Crime policy issued by Chubb Insurance Co., providing the coverage and limits shown in Table 7-4 for loss discovered during the September 18, 2024, to September 1st, 2025 policy period.

Table 7-4 Crime Coverage, Limits, and Deductibles

Coverage	Limit	Deductible
Employee Dishonesty	\$1M	\$50,000
Employee Retirement Income Security Act (ERISA) Extension	\$500,000	\$0
Forgery or Alteration	\$1M	\$50,000
On-Premises	\$1M	\$50,000
Computer Fraud/Fraudulent Transfer Instructions	\$1M	\$50,000
Audit Expense - For an Audit required by State or Federal bodies as a result of employee dishonesty	\$150,000	\$0
In transit	\$1M	\$50,000
Securities	\$1M	\$50,000
Claims Expense	\$150,000	\$0
Voice-Initiated Transfer	\$1M	\$50,000
Voice Computer System Fraud	\$1M	\$50,000
Extortion Threat to Persons	\$100,000	\$50,000
Extortion Threat to Property	\$100,000	\$50,000
Money Orders	\$1M	\$50,000
Counterfeit Currency	\$1M	\$50,000
Policy Aggregate		\$1M

7.3.4.1 Crime Coverage Recommendations

This section summarizes previous observations and recommendations made by MARSH for commercial crime coverage:

1. Consideration should be given to increasing the limits of the Commercial Crime policy in line with Peers. MARSH analyzed the benchmarked limits carried by PRASA compared to those carried by peers and found that the limits are well below the \$10M in limits carried by peers.
2. Consideration should be given to purchasing an ERISA Bond. The Commercial Crime policy includes a \$500K ERISA Extension. The Employment Retirement Income Security Act of 1979 requires that the fidelity bond be

placed with sureties that are Treasury-listed. We recommend that an ERISA bond be purchased. These policies have a three-year term, and the premium for the full term is generally about \$500.

3. Consideration should be given to including Social Engineering coverage. Phishing attacks are a primary source of loss. We recommend that PRASA seek a policy offering this coverage extension. Generally, the same is sub-limited to \$250K with a \$50K. Please note that this coverage always carries a call-back provision, and internal procedures must be consistent with this requirement.
4. Consideration should be given to including the Client's Property coverage. PRASA holds a deposit for service from each client. This deposit is not income for PRASA, but rather it is held in trust. Should a claim arise related to these funds, this coverage is important.
5. Consideration should be given to including coverages readily available that are not currently included in the Commercial Crime insuring agreements. Incoming Check Forgery & Depositors Forgery should be included (full limit). Credit, Debit, or Charge Card Forgery should be included.
6. The Commercial Crime policy should be reviewed for inconsistencies in contract language. The Crime policy form is in Section 6. Notice has been amended to limit the persons whose knowledge of a Claim triggers the policy and to allow for notification by email. However, there is a contradiction between the contract language of the first paragraph of this section, as amended in Endorsement 2, and the second paragraph of the insurance contract itself (un-amended). It is first stipulated that the claim should be reported as soon as practicable, which is the most advantageous language. The second paragraph then states that, as a condition precedent to rights under the policy, notice must be given no later than 90 days after such loss is first discovered by any executive officer or the Company's risk manager. The second paragraph should be eliminated.

7.3.5 General Liability

Policy reviewed is PRASA's 2024-2025 Commercial General Liability Program issued by MAPFRE with the limits detailed in Table 7-5, below. Aggregate limits apply per location and per project as per ISO forms CG-2504 (05-09) and CG-2503 (05-09), attached to the MAPFRE policy. A \$100,000 Self-Insured Retention, which contemplates both Indemnity and claims adjustment expenses, applies to each occurrence. This policy has a \$750,000 Aggregate or Cap as respects claims adjustment expenses, so once PRASA pays this amount, MAPFRE will pay these claims expenses in excess of \$750,000, and the self-insured retention would apply to Indemnity payments only.

Table 7-5 General Liability Coverages and Limits

Coverage	Limit
General Liability – Each Occurrence	\$1,000,000
General Liability – General Aggregate	\$2,000,000
Personal and Advertising Injury	\$1,000,000
Products-Completed Operations Aggregate	\$2,000,000
Employer's Liability Stop-Gap	\$1,000,000
Employee Benefits Liability	\$1,000,000
Damage to Premises Rented to You	\$250,000
Medical Expense	\$10,000

7.3.5.1 General Liability Observations and Recommendations

This section summarizes the observations and recommendations made by MARSH related to general liability coverage.

1. It is recommended that the Extended Name Schedule endorsement be modified to read as follows to correct mistakes in the present form.
 - a. *"Autoridad de Acueductos y Alcantarillados de Puerto Rico and/or "Estado Libre Asociado de Puerto Rico and/or Gobierno de Puerto Rico Departamento de Hacienda" c/o "Área de Seguros Públicos" and/or PRASA and/or Commonwealth of Puerto Rico and/or Government of Puerto Rico DOT c/o Bureau of Public Insurance and/or any subsidiaries, affiliated associated, newly acquired or controlled Company and or corporation and or individuals as may now be constituted or hereafter formed, as their respective interests may appear for which the Named Insured is responsible for placing insurance and for which no other specific insurance is provided."*
2. Under the "Special Conditions" endorsement attached to the MAPFRE policy, MARSH recommends the following amendments be performed.
 - a. It is recommended that a first paragraph be added to this endorsement that should read:
 - i. *"All the terms and conditions included in this Special Conditions Endorsement replace and supersede any other related, similar or conflicting conditions contained anywhere else on this policy"*
 - b. Broad Form Named Insured (item 6) should read:
"Autoridad de Acueductos y Alcantarillados de Puerto Rico and/or Estado Libre Asociado de Puerto Rico and/or Gobierno de Puerto Rico Departamento de Hacienda c/o Área de Seguros Públicos" and/or PRASA and/or Commonwealth of Puerto Rico and/or Government of Puerto Rico DOT c/o Bureau of Public Insurance and/or any subsidiaries, affiliated associated, newly acquired or controlled Company and or corporation and or individuals as may now be constituted or hereafter formed, as their respective interests may appear for which the Named Insured is responsible for placing insurance and for which no other specific insurance is provided"
 - c. Severity of Interest (item 9) should be revised to read Severability of Interest.
 - d. The language used under Knowledge of an Occurrence Clause (item 15) is quite confusing, and it recommends that it be substituted by the following:
3. *"It is agreed that only an executive officer, risk manager, or person designated by the insured shall be responsible for giving notice to the insurer after having knowledge of an accident, occurrence, claim, or suit. Failure to give an immediate notice of any loss or damage, or of any suit, or to forward to the insurer any demand, notice, summons, or other process received, shall not invalidate any claims made by the insured or free the company from any responsibility under this policy."*
4. It is recommended that the "Damage to Premises Rented to You" limit be increased to at least \$1,000,000. This is a very latent risk exposure given the large amount of rented premises the insured occupies.
5. It is recommended that the ISO Form CG 2142 (12-04) "Exclusion, Explosion, Collapse and Underground Property Damage Hazard" be eliminated, to avoid confusion, as it is eliminated by the conditions of the "Special Conditions" Endorsement.

6. It is recommended that Terrorism coverage should be considered under PRASA's Commercial General Liability program. Commercial General Liability program excludes coverage for any Terrorism event. Considering the Insured operations an act of Terrorism is an important and potentially severe exposure with considerable implications.
7. It is recommended that an endorsement in the policy be included that states that the SIR will not apply to Medical Expenses, hence coverage would be first dollar. The applicability of the Medical Expenses coverage should be addressed within the policy. PRASA's commercial general liability program provides a \$10,000 per person limit for Medical Expenses, but the policy has a \$100,000 SIR per occurrence.

7.3.6 Automobile Liability

Policy reviewed is PRASA's FY2025 Commercial Auto Liability Program issued by MAPFRE for Bodily Injury and/or Property Damage caused by Specifically Described Automobiles (Symbol 7), including Hired and Non-Owned, with a \$1,000,000 Combined Single Limit per accident.

- The policy provided for review did not include several forms scheduled in the policy Declarations that couldn't be reviewed. These scheduled but unincluded forms are the following:
 - 04.123 01/99
 - U_6 01/05
 - ANX01U-773A 06/9

7.3.6.1 Automobile Liability Recommendations

This section summarizes previous observations and recommendations made by MARSH related to automobile liability coverage.

1. It is recommended that Covered Auto Symbol 7 ("Specifically Described Autos") be changed to Covered Auto Symbol 1 ("Any Auto") to avoid lapse of coverage for autos acquired and not reported to the insurer.
2. It is recommended that Physical Damage coverage be included in order to ensure the broadest coverage. Coverage such as Rental Reimbursement, Damage to Temporary or Substitute vehicles, Auto Loan/Lease Gap, and Confiscation typically complements Physical Damage coverage.
3. It is recommended that the form CA 03 01 10 13 "Deductible Liability Coverage" be eliminated from the policy. The policy shows that there is no deductible under the Liability Coverage Declarations; therefore, we understand that the form was included in the policy by mistake.
4. It is recommended that the Hired and Non-owned Physical Damage coverage be included. A limit of no less than \$50,000 per vehicle is suggested in case any vehicle is rented, or an employee is using their own vehicle for work duties.
5. It is recommended that Trailer Interchange coverage be included. This would cover any trailer that is owned by others.
6. It is recommended that Drive other Car coverage be included for Liability, Physical Damage, and Medical Payments coverage. This would cover management employees who are furnished a company auto but use a non-owned auto on any occasion.

7. It is recommended that the E&O Endorsement be corrected. The wording of the endorsement should read as follows:
 - a. "It is hereby understood and agreed that the coverage afforded or the quotation submitted shall not be invalidated or affected by errors, omissions, or improper description of the premises, property, autos, or any other applicable detail."
8. It is recommended the Extended Named Insured to include all entities – "*Autoridad de Acueductos y Alcantarillados de Puerto Rico and/or Estado Libre Asociado de Puerto Rico and/or Gobierno de Puerto Rico Departamento de Hacienda c/o Área de Seguros Públicos* and/or PRASA and/or Commonwealth of Puerto Rico and/or Government of Puerto Rico DOT c/o Bureau of Public Insurance and/or any subsidiaries, affiliated associated, newly acquired or controlled Company and or corporation and or individuals as may now be constituted or hereafter formed, as their respective interests may appear for which the Named Insured is responsible for placing insurance and for which no other specific insurance is provided."
9. It is recommended to include "Special Policy Conditions" on the first declaration page under section "Forms & Endorsement made as part of this policy at time of issue" schedule. This avoids any confusion and states that the Special Policy Conditions are part of the program.

7.3.7 Garage Keepers

Policy reviewed is PRASA's FY2025 Garage Keeper's issued by MAPFRE for PRASA coverage that is included on a legal liability basis for comprehensive and collision with a limit of \$1,000,000 per event for each covered location for "autos left with you for service, repair, storage, or safekeeping". Comprehensive coverage is subject to a \$250 per event deductible, subject to a maximum of \$1,000 per event, and collision coverage is subject to a \$250 deductible.

7.3.7.1 Garage Keeper's Recommendations

This section summarizes observations and recommendations made by MARSH related to the garage keeper's coverage.

1. Legal liability coverage should be changed to direct primary coverage.
2. Garage keeper's coverage Form Primary Insurance box should be marked.
3. Flood Exclusion should be eliminated to avoid a major loss. This peril is very present for this exposure.

7.3.8 Umbrella and Excess Liability

PRASA maintains a primary umbrella policy which provides a \$60M limit in excess of the primary general, automobile, and employer's liability policies. The umbrella is otherwise subject to a \$10,000.00 SIR for bodily injury, property damage, and personal and advertising injury losses not covered by the primary insurance. Coverage is provided through Triple S.

7.3.8.1 Umbrella and Excess Liability Recommendations

Please find below MARSH recommendations with respect to PRASA's Excess Liability program:

- 1. Include the Garage Liability policy issued by MAPFRE under the Commercial Umbrella's "Schedule of Underlying Insurance", in order to achieve the higher limits provided by the Excess Liability program for any Garage Liability claim that could exceed policy limits or could be excluded from coverage under said program.
- 2. The Commercial Umbrella program does not include an Insuring Agreement, which would state what terms and conditions apply to the Commercial Umbrella and whether the Excess Liability programs are in the following form or not. This needs to be included in order to avoid any misinterpretations at the time of a large loss, which could trigger coverage under the Excess Liability program.
- 3. We have completed a benchmarking analysis using MARSH's proprietary information to determine in absolute terms if the limit purchased by PRASA is aligned with limits carried by 49 industry peers. The report showed that on average, limits of \$53M were carried, as shown below in Figure 10.

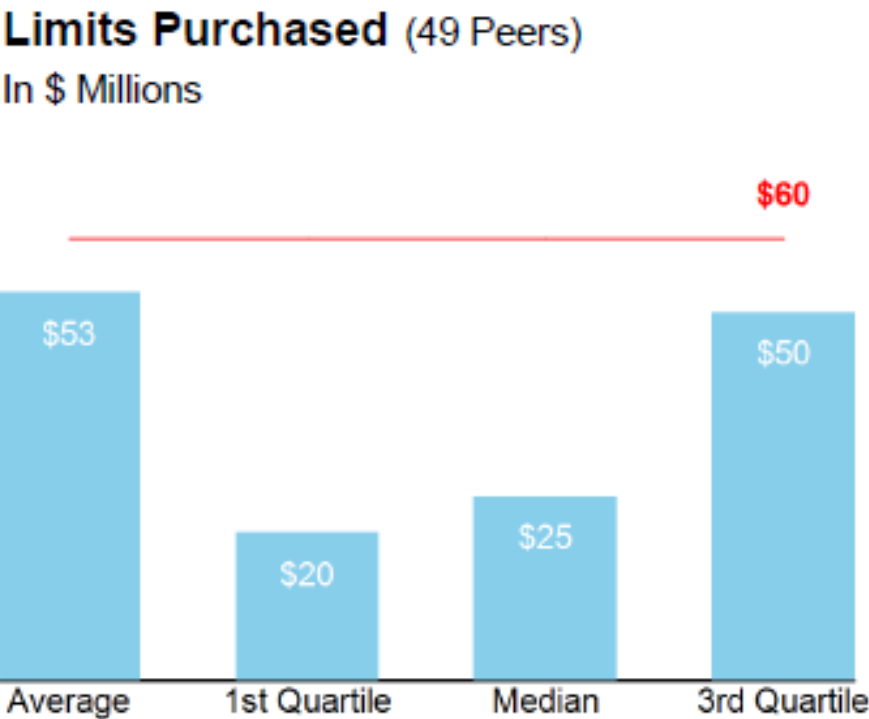


Figure 7-1 Umbrella Benchmarking¹⁶

Notwithstanding the above, a risk exists for a catastrophic failure of a PRASA dam that could potentially cause a very large liability loss, especially if there are residential communities located below a dam. The question of PRASA's exposure to liability from the destruction of a dam was raised previously, and MARSH understands that there is a potential for a substantial loss of life were a PRASA dam to collapse. In such an event, according to MARSH, \$60M total liability limit may not be enough to settle claims if PRASA were found to be negligent.

¹⁶ MARSH proprietary information.

7.3.9 Directors' and Officers' Liability

PRASA purchases \$40M in Directors & Officers (D&O) liability insurance for claims filed against D&O, employees, PRASA, and PRASA Holdings, structured in a primary policy and three excess policies. Coverage is written on a claims-made basis. The primary layer of D&O insurance is subject to a \$500,000 SIR for claims against indemnified persons or a claim against PRASA alleging a breach of duties.

With regard to the terms and conditions of the policy, the policy form is a basic D&O Liability coverage that provides limited coverage for allegations of wrongful acts made against an Insured due to the exclusions that are added by endorsement. MARSH strongly recommends that the exclusions be reviewed and renegotiated.

Coverage is subject to Retro Dates (Prior Acts limitations) and Prior & Pending Litigation dates, as summarized in Table 7-6.

Table 7-6 Directors and Officers Liability Program

Insurer	Limit	Retro Date	Prior & Pending Litigation Date
Chubb Insurance Company (Chubb) (Primary)	\$15M	July 1 st , 2007	July 1 st , 2007
Berkley Insurance Company (Berkley) (First Excess Layer)	\$10M excess of \$10M	July 1 st , 2014	July 31, 2020
Liberty Mutual Insurance Company (Second Excess Layer)	\$10M excess of \$5M	Underlying	July 31, 2020
Antilles Insurance Company (Third Excess Layer)	\$10M excess of \$15M	July 1 st , 2021	July 1 st , 2020
Total D&O Limit	\$45M	-	-

7.3.9.1 Directors and Officers Recommendations

This section summarizes the observations and recommendations made by MARSH related to the D&O coverage.

1. Review Retro Dates and Prior and Pending Litigation Dates to align them. It is strongly recommended that PRASA and its insurance consultant review the retro dates and prior and pending litigation dates of the D&O program. At this time, if a claimant were to mention acts occurring prior to 2014, only \$15M in limits are available. In examining the \$10M excess of \$30M policy issued by Antilles Insurance (error in the certification and Defense of Puerto Rico, the insurance agency, is named instead of Antilles Insurance), the retro date is July 1st, 2021 and the Prior & Pending litigation date is July 1st, 2020. The Retro Date establishes the date on which coverage begins, and it does not make sense that the Prior & Pending litigation date is prior to this date. To optimize coverage, Retro Dates should be consistent.
2. Re-negotiate the pricing of excess limits of liability as pricing is inverted. With regard to the pricing of the excess limits of liability, all of the policies except for the policy issued by Antilles Insurance have a higher cost per million dollars than the primary policy. Review and renegotiate increased limit factors to normalize the pricing of the D&O program.

3. Consider Purchasing Additional Limits, including Side A Difference in Condition (DIC) coverage, to better align with Peers. MARSH completed a benchmarking analysis using proprietary information to determine in absolute terms if the limit purchased by PRASA is aligned with limits carried by peers. It should be noted that, in addition to the traditional D&O policies carried by PRASA, peers also carry a Side A Excess DIC policy with an average limit of \$15M. This policy protects only the D&O and has fewer exclusions than a typical D&O policy. If PRASA were to purchase **\$60M in limits**, its D&O program would better align with industry standards.
4. Consider renegotiating policy exclusions to provide coverage for principal risks faced by directors. If carriers are not amenable, consider restructuring coverage and purchasing higher limits of Side A D&O Liability coverage.
 - a. Chubb, \$15M Primary D&O Liability policy has a Securities Exclusion with a carve back providing coverage for claims arising from Private Placements less than \$50M. All other securities claims are excluded.
 - b. The definition of Loss specifically excludes nonmonetary relief, and coverage for defense costs only should be sought.
 - c. There are two specific matter exclusions, the first excluding claims brought by clients or customers as it relates to PRASA's regulator capacity in establishing tariffs for water consumption to clients, customers, and cogeneration companies. Claims arising out of alleged violations of the SDWA are also excluded, as well as claims arising from or related to facts, circumstances, or situations related to the general obligation, notes, bonds issued by the Commonwealth of Puerto Rico, the PROMESA, or any work related or advice given that might result in a claim. There is also a bankruptcy and insolvency exclusion that defines insolvency as the inability to pay debts when due. These exclusions drastically limit coverage available under the policy and should be renegotiated.
 - d. Chubb's primary policy contains an insolvency exclusion, eliminating coverage for any payment for Loss in connection with any Claim attributable to or arising out of any liquidation or insolvency or filing for bankruptcy or causes thereof. Insolvency, for the purpose of this exclusion, means inability to pay debts when due.
 - e. Berkley, Antilles Insurance, and Liberty Mutual, as follow form markets, all incorporate the exclusions that form part of the Chubb policy, and each includes additional exclusions eliminating all coverage for securities claims, including private placements of any amount (Absolute Securities exclusions), bankruptcy and insolvency exclusions, and cyber liability exclusions. The latter is a cause for concern because while PRASA has opted to obtain Cyber Liability, the same does not extend coverage to D&O if a suit were to be filed alleging that their fiduciary duties have been breached.
 - f. A Drop-Down endorsement should be requested on the excess layers. While excess policies drop down when the underlying limits are eroded, the Drop-Down endorsement provides greater flexibility. It would allow PRASA or any other entity to pay any amount under the policy that has not been fully eroded by payment of loss under the policy, so that the excess layer is triggered.
 - g. In addition, numerous typographical errors were noted. If not corrected, they might lead to inconsistency in the interpretation of coverage in a claim's scenario.

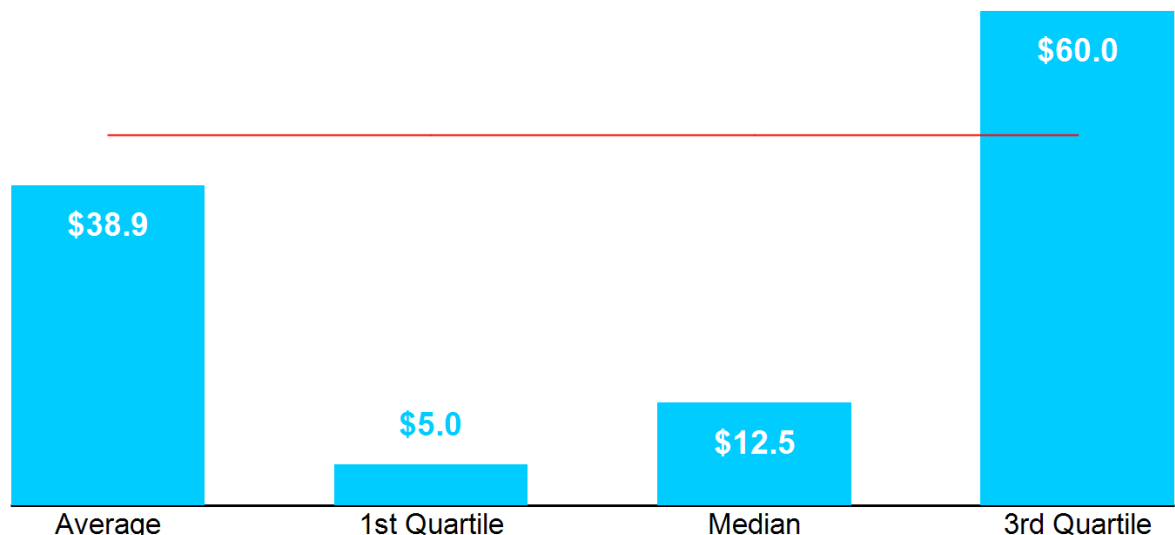


Figure 7-2 D&O Liability Benchmarking

- h. Consider Eliminating The Specific Matter Exclusion – Regulatory & Water Price. It is understood that the D&O policy does not respond to disgorgement remedies; however, this endorsement goes far beyond excluding all claims brought by clients, customers or any entity on behalf of such clients or customers as it related to the Insured’s regulator capacity in establishing tariffs for water consumption to clients, customers and cogeneration companies (This last reference is also unclear).
- i. Consider Amending Securities Claim Definition to include administrative or regulatory proceedings against PRASA when such a proceeding is also commenced and continuously maintained against an Insured Person. Currently, such proceedings are specifically excluded.
- j. Consider Including a Priority of Payments clause be added to the policy specifying that the Insurer is first liable to pay on behalf of the Insured Persons under Insuring Agreement A (Non-indemnifiable D&O claims); second, the Insurer should pay that Loss for which they may be liable to pay on behalf of the Company under Insuring Agreement B (Corporate Reimbursement); lastly, any payments under Insuring Agreement C (Company Securities Liability) would be made.
- k. Consider Increasing Coverage Threshold for Securities Claims. The policy has a Securities Exclusion with a carveout for Claims arising from the offering, sale, or purchase of securities, whether debt or equity, in a transaction exempt from registration with the U.S. Securities and Exchange Commission (SEC) in which the total consideration for the offering does not exceed \$50M. Given that most of the offerings exceed this amount, we recommend establishing a strategy to increase this threshold progressively.
- l. Consider accepting a non-cancelable policy except for nonpayment as offered in the policy contract instead of imposing the government-mandated 90-day cancellation clause.
- m. Consider Requesting Amendments so that the Second layer is follow form and drop-down. The second excess layer issued by Berkley should be follow form and, as such, should be amended to eliminate the Bankruptcy exclusion and a drop-down exclusion allowing the underlying limit to be eroded by either payment under the policy or payment of the underlying limit by another source should be added.

- n. Consider Incorporating Amendments to the Claim Reporting Threshold Endorsement. The policy has a Claims Reporting Threshold that allows for periodic bordereaux. Instead of amending Section IV Defense, Settlement and Allocation, the endorsement should amend Section 6 Notice. It is recommended that a 45-day grace period be granted after the quarter end for the reports to be submitted.

7.3.10 Employment Practices Liability

PRASA maintains primary and excess employment practices liability (EPL) policies providing total limits of \$5M in the aggregate annually for employee claims alleging wrongful termination, employment-related misrepresentation, sexual harassment, retaliation, or other violation of an employee's civil rights. A \$100,000 SIR applies to each claim. Primary coverage is provided through Chubb. Excess EPL coverage is through Berkley. The pricing of the premium for the excess limit of liability is aligned with rates in the market (64% increased limit factor).

7.3.10.1 Employment Practices Liability Recommendations

This section summarizes previous observations and recommendations made by MARSH related to the EPL coverage.

1. Consideration should be given to including coverage for defense costs for Law 80 Statutory Severance claims when the remedy sought is "Mesada".
2. Consideration should be given to including affirmative coverage that should be negotiated for Loss resulting from a claim made against PRASA by a union on behalf of an employee, arising from a labor dispute, negotiation, or proceeding in connection with a CBA that is otherwise not excluded from the policy.
3. Consideration should be given to re-negotiating the excess EPL policy issued by Berkley to eliminate the Known Wrongful Act exclusion. In dealing with labor matters, there is always a chance that a claim might be filed. The exclusionary language is broad and gives the carrier discretion to decline.
4. Consideration should be given to renegotiating the excess EPL policy to eliminate the Political Discrimination exclusion, the Specific Matter exclusion as related to Covid-19, and the Cyber Liability exclusion, as the latter is broad and excludes coverage not only for Cyber-related incidents but also any infringement of privacy or internet content.
5. The EPL Excess does not include a Drop-Down Endorsement that would allow excess layers to drop down either when the underlying is eroded by payment or when the Insured or another entity pays the amount needed to fully erode the limit of liability.

7.3.11 Premises Pollution Liability

Chubb of Puerto Rico provides pollution liability coverage on a claims-made basis at \$10M per New Pollution Condition, \$10M annual aggregate limit for all New Pollution Conditions. Coverage is subject to a \$250,000 per accident SIR. Policy includes First Party and Contingent Transportation coverage with a \$25,000 SIR. A retroactive date of July 1st, 2002, applies.

7.3.11.1 Premises Pollution Liability Recommendations

This section summarizes previous observations and recommendations made by MARSH regarding the premises' pollution liability coverage. A retroactive date of July 1st, 2002, applies.

1. It is recommended that the Broad Named Insured endorsement (CHB PPL-43 01/2017) be modified to read as follows to correct mistakes in the present form.
 - a. *“Autoridad de Acueductos y Alcantarillados de Puerto Rico and/or Estado Libre Asociado de Puerto Rico and/or Gobierno de Puerto Rico Departamento de Hacienda c/o Área de Seguros Públicos and/or PRASA and/or Commonwealth of Puerto Rico and/or Government of Puerto Rico DOT c/o Bureau of Public Insurance and/or any subsidiaries, affiliated associated, newly acquired or controlled Company and or corporation and or individuals as may now be constituted or hereafter formed, as their respective interests may appear for which the Named Insured is responsible for placing insurance and for which no other specific insurance is provided.”*
2. Consider increasing the limit per condition to \$20M. The aggregate limit may be increased to **\$20M** as well.
3. It is recommended to purchase Coverage B, Pre-Existing Conditions coverage for the same limit as Coverage A. New Pollution Conditions coverage is included in the policy.
4. It is recommended that “Underground Storage Tank Coverage” be acquired. The storage tank schedule should be submitted, or a “blanket” coverage negotiated with the insurer.
5. It is recommended that Terrorism coverage should be considered under PRASA's Premises Pollution Liability program. The Premises Pollution Liability program excludes coverage for any Terrorism event. Considering the Insured operations an act of Terrorism is an important and potentially severe exposure with considerable implications.

7.3.12 Accident Liabilities for Travel and Divers

Chubb issued PRASA's FY2025 accident coverage program for travel with the limits detailed in Table 7-7. Renewal occurred on July 1st, 2024, and covers until July 1st, 2025. The policy has a \$2.5M annual aggregate limit. Coverage is available for PRASA employees named as Insured. PRASA's premium for this policy was \$1,000.

Table 7-7 Accident (Travel) Liabilities

Coverage	Limit
Accidental Death and Dismemberment	\$500,000
Accidental Medical Expenses Reimbursement ¹	\$7,000
Medical Sickness Reimbursement	\$3,500
Emergency Medical Transfer	\$50,000
Repatriation of Remains	\$5,000
Cancellation and Interruption of Travel	\$500
Loss of Personal Belonging	\$1,000
Assistance Service	-

¹ If a participant is covered under any Medical Health Plan, the Company will cover the excess Medical Expenses incurred. If not covered by any Medical Health Plan, the Company will cover charges after applying the \$100.00 deductible.

Renewal of this policy for FY2026 covers from July 1st, 2025, and extends until July 1st, 2026. Coverage, limits, and premiums remained the same.

In addition, PRASA maintains an accident coverage program for divers, as issued by Chubb. Renewal covers from July 1st, 2024, until July 1st, 2025. The policy has a \$750,000 annual aggregate limit. Coverage is available for PRASA employees named as Insured. Coverage includes a \$250,000 limit for Accidental Death and \$250,000 for Accidental Dismemberment. PRASA's premium for this policy is \$19,900. Same caveat for Accidental Medical Expense reimbursement as for Accident (travel).

7.3.13 Cyber Liability

PRASA acquired cyber liability insurance around December 2023 from Crum & Foster Specialty Insurance Company, thus addressing the need to secure public information and guard against breaches, cyber-attacks, claims, and limit the impact to the Authority. Policy period is from June 30, 2024, to June 30, 2025.

During this policy period, \$10M in limits were purchased with a \$5M primary policy provided by Crum & Forster and a \$5M excess of \$5M limit by Liberty Surplus Insurance Co. Both carriers are authorized surplus lines carriers. The policy issued is in the most basic form with few endorsements, mostly additional exclusions.

7.3.13.1 Cyber and Additional Recommendations

MARSH made the following recommendations regarding PRASA's cyber liability policy:

1. Waiting periods should be revised from 12 hours to 8 hours.
2. Breach Cost Aggregate limit endorsement should be included.
3. Consent to Settle Amendatory should be included.
4. Hammer Clause should be revised to a soft hammer of 80/20.
5. PCI Rectification costs should be included.
6. Credit monitoring for 12 months should be included.
7. The indemnity period under Restoration should be 90 days after normal resumption of business and not limited by the policy expiration date.
8. The definition of Insured should be revised.
9. The choice of law should be Puerto Rico and not New Jersey.
10. The Specific Matter exclusion should be reviewed to narrow the reference as much as possible.
11. Request the elimination of web tracking exclusion.
12. Request that Terrorism coverage be extended. With the prevalence of nation-state attacks, this coverage is important.
13. Consideration should be given to marketing the excess policy. The premium is currently higher than that of the primary policy. The goal should be to reduce the excess premium to 65-70% of the primary policy premium.
14. The excess carrier should rely on the Known Event Exclusion on the primary policy.
15. Consideration should be given to conducting an assessment of security controls and a review of the Data Recovery Plan and the Business Interruption Plan. A desktop exercise is also recommended.
16. New Coverage Recommendation for Active Assailant Coverage. High-profile mass shootings over the last decade in various public and private settings and various attacks involving vehicles have often been carried out with the sole intent of instilling public fear while causing as much loss of life as possible. Although traditional forms of insurance coverage can provide a measure of protection for businesses and employees that are targeted in such attacks, their language can be ambiguous and may have sizable gaps.
 - a. Active Assailant or Active Shooter coverage offers a combination of property and casualty coverage and complements coverage that you already purchase. It offers affirmative coverage that is triggered by

deliberate, malicious physical attacks by active assailants who are physically present and armed. These policies can typically offer:

- i. Property damage, business interruption, and extra expense coverage.
- ii. Legal liability coverage.
- iii. Non-physical damage coverage.
- iv. Loss of attraction and denial of access coverage.
- v. Reimbursement for additional expenses can include forensic cleanup, public relations consulting, crisis management, medical services, including psychiatric care, hiring additional staff, and additional security.
- vi. No exclusions for vehicles, attacks by employees, or terrorism.

7.4 Owner-Controlled Insurance Program

PRASA maintains an OCIP for its multi-year Capital Improvements Program - CIP. In addition to covering PRASA, the OCIP is designed to ensure enrolled contractors and subcontractors (and design professionals for General Liability only) of all tiers working on the CIP. The OCIP does not cover vendors, installers, truckers, delivery persons, concrete/asphalt haulers, and/or contractors who do not have dedicated on-site payroll, except as otherwise endorsed in the policy. In addition, the OCIP program provides builder's risk, general liability, umbrella, pollution liability insurance, and miscellaneous errors & omissions professional liability insurance. Each of these coverages is discussed below.

7.4.1 Contractors All Risk –Completed Value Builder's Risk

PRASA maintains the builder's risk policy as part of its OCIP program. Chubb is the insurer. The policy period is from July 8, 2024, until June 23, 2025. Coverage applies to all risks of direct physical loss, except as excluded by the policy. The estimated value of all projects is \$1,018,297,251 per the project schedule prepared by PRASA and included as part of the policy.

The minimum earned premium is \$6,924,421.00.

The maximum limit per project value is \$73,029,505.00. Any project with a contract value in excess of \$73,029,505.00 must be reported to Chubb on an individual basis. Chubb will decide on its inclusion in the policy.

Refer to Table 7-8 for the OCIP builder's risk limits and sub-limits of Liability summary.

Table 7-8 FY2024 OCIP Builder's Risk Limits and Sub-limits of Liability Summary

Coverage	Sub-limit
Maximum Physical Loss of or damage to insured Property per Insured Project	Declared value of the affected project.
Professional Fees	10% of the loss is subject to a maximum of \$1,000,000. Whichever is less.
Property in Transit	\$1,000,000 for any one conveyance.

Coverage	Sub-limit
Principal's Existing Property	\$1,000,000 per occurrence and in the aggregate for the policy period.
Offsite Storage	\$1,000,000 for any one location.
Expediting Expenses	20% of the loss, subject to a maximum of \$1,000,000.
Debris Removal	25% of the loss, subject to a maximum of \$1,000,000.
Fire Brigade Charges/Extinguishing Expenses	\$250,000 for any one occurrence.
Plans, Blueprints, Drawings, or Other Documents	\$250,000 for any one occurrence.

The Aggregate Limits of Liability or the maximum amount Chubb will pay for all losses or damages incurred by all the declared projects and always limited to the declared value of the affected project as it is indicated in the projects' schedule, in one occurrence, and the aggregate in all occurrences during the policy period and resulting from and contributed to or aggravated as summarized in Table 7-9.

Table 7-9 FY2024 Builder's Risk Policy - Limits and Deductibles Summary^{1,2,3}

Coverage	Limit	Deductible	
		Projects with Declared Value up to \$10,000,000.00	Projects with Declared Value higher than \$10,000,000.00
Earthquake	\$30,000,000.00	5% of VARTOL, minimum \$50,000.00	5% of VARTOL, minimum \$100,000.00
Windstorms, ensuing flood, and storm surge	\$30,000,000.00	2% of VARTOL, minimum \$50,000.00	2% of VARTOL, minimum \$100,000.00
Flood	\$10,000,000.00	2% of VARTOL, minimum \$50,000.00	2% of VARTOL, minimum \$50,000.00
Any other peril		\$20,000.00 except 10% of loss, minimum \$50,000.00 for testing	\$20,000.00, except 10% of loss, minimum \$50,000.00 for testing

¹ PRASA's existing property is the property located on the project site, as well as property surrounding the project site belonging to or held under the custody, care, or control of persons named in the policy as the insured. The deductible is \$100,000.

² VARTOL is Values at Risk at the Time of Loss.

³ Natural catastrophic deductibles apply to each affected or damaged project.

7.4.1.1 Contractors All-Risk Recommendations

This section summarizes previous observations and recommendations made by MARSH for the contractors' all-risk coverage.

1. Request an endorsement to include a "Partial Occupancy Provision" to grant permission for partial occupancy of project areas. Therefore, coverage will not cease or expire due to the partial occupation of any project area or the project's substantial completion.
2. Include Wet Works and any type of roads, ways, expressway works, overpasses and bridges, viaducts, and tunneling works. These are usually impacted during the construction of water mains and sewer pipes and should be covered with at least a reasonable sub-limit.
3. Delete the Special Conditions Endorsement Construction and/or Erection Time Schedule, or at least negotiate a deviation from the schedule of more than the current four weeks.
4. Delete the Special Conditions Endorsement Safety Measures With Respect to Precipitation and Flood.
5. The OCIP Manual limits and some of the sub-limits and deductibles are different from the policy, which could create confusion in the event of a loss.

7.4.2 Commercial General Liability

The OCIP commercial general liability policy is a "per occurrence" policy written by Chubb of Puerto Rico. It includes the limits shown in Table 7-10. Coverage remained the same as the previous year, but the premium increased to \$2,888,903.00 minimum and the deposit fully earned premium. The premium basis is the Total Cost of the Named Insured with respect to operations performed for the named insured during the policy period by independent contractors, all worklet or work sublet in connection with each specific project, including the Costs of all labor, materials, and such work, whether furnished by the owner, contractor or subcontractors, including fees, allowances, bonuses or commissions made, paid or due. The policy period covers from July 8, 2024, until June 23, 2025.

Table 7-10 OCIP General Liability Coverages and Limits

Coverage	Limit
Each Occurrence	\$1,000,000.00
General liability – General Aggregate	\$2,000,000.00
Personal and Advertising Injury	\$1,000,000.00
Products/Completed Operations - Aggregate	\$2,000,000.00
Employer's Liability Stop Gap	\$2,000,000.00 Each Accident and Aggregate
Damages to Premises Rented to You (Any One Premises)	\$250,000.00
Medical Expense (Any One Person)	\$5,000.00

7.4.2.1 Commercial General Liability Recommendations

This section summarizes previous observations and recommendations made by Marsh related to OCIP commercial general liability coverage.

1. The Completed Operations coverage extension is for five years from the termination date of the policy or its renewal(s). The Aggregate Limit is for the Extended Period of five years, and it is not an annual limit. It is recommended that PRASA extend the period to 10 years to cover the full statutory limit (Statute of Limitations

Law) and change to an annual aggregate per year. In addition, the period should start from the completion date of each project and not from the policy termination or non-renewal date.

2. The "Term of the Project" covers only from 07/08/2024 to 06/23/2025 and until each project's completion. We recommend correcting this mistake by endorsing the policy. The OCIP policy only covers CIP: Capital Improvements Projects.
3. PRASA should request a return premium adjustment of \$38,966.00 from Chubb to indicate the correct minimum and deposit premium according to the composite rates scale and the estimated total costs submitted by the named insured. The minimum earned deposit premium shown in the Composite Rate Endorsement "A" is different from the premium charged and does not match the policy rates.
4. The premium is based on a composite rate of \$3.80 per \$1,000.00 of the Total Costs for the First \$30,000,000.00, then \$3.61 for the next \$31,000,000.00, and \$3.42 in Excess of \$51,000,000.00. Based on the estimated total costs of \$142,542,735.00, the minimum and deposit premium should have been \$502,696.00 instead of \$541,662.00.
5. A \$5,000.00 per claim deductible applies for bodily injury, and a \$5,000.00 per claim deductible applies to property damage for each loss. However, in the Deductible Liability Insurance Endorsement Form CG03 00 01 96, it is also written that the Property Damage deductible per Claim is \$5,000,000.00. If it is a mistake, it must be revised or clarified with an endorsement. The policy is silent as to who is responsible for deductibles. The OCIP Manual specifies that the Contractor should assume this deductible.

7.4.3 Commercial Umbrella Liability

Chubb of Puerto Rico writes the OCIP commercial umbrella liability policy. We did not receive a copy of the original policy, only of a renewal certificate for the policy period from July 8, 2024, to June 23, 2025. The renewal certificate indicates a limit of insurance of \$25,000,000.00 for each occurrence and aggregate in excess of \$25,000,000.00 occurrence and aggregate "written by" and it does not say by whom. The Schedule of Underlying Insurance only included the Commercial General Liability policy and its limits of insurance. The SIR is \$10,000.00. The current annual premium is \$1,388,174.00.

7.4.3.1 Commercial Umbrella Liability Recommendations

This section summarizes previous observations and recommendations made by MARSH related to commercial umbrella liability coverage.

1. The Composite Rate Endorsement "B" is a copy and paste of the primary CGL policy Composite Rate "A" endorsement. Only the policy number and the endorsement letter were changed. We recommend correcting the rates and the minimum premium earned to indicate the umbrella or excess policy rates and premiums. For this reason, we could not validate whether the premium is correct.
2. The Named Insured in the Endorsement "C" and the Named Insured in the Endorsement "D" are different. Both should be identical to avoid possible interpretation conflicts. Our recommendation is to correct them.
3. The Completed Operations coverage extension is for five years from the policy's termination date or its renewal(s). Should consider requesting it be changed to 10 years to cover the full statutory limit (Statute of Limitations Law) and to begin from the date of completion of each specific project.

7.4.4 Contractor's Pollution Liability

Chubb writes the OCIP contractor's pollution liability policy. Coverage applies on an occurrence basis and covers pollution arising from construction activities involving PRASA's OCIP program. The policy period is from July 8, 2024, to June 23, 2025. The policy limits of insurance are \$20,000,000.00 per occurrence and \$20,000,000.00 aggregate, subject to a \$25,000.00 SIR per pollution incident. The policy covers PRASA and the PRASA OCIP contractors, subcontractors, sub-subcontractors, and consultants' participants. The annual premium for this policy is \$975,474.

7.4.4.1 Contractor's Pollution Liability Recommendations

1. It is recommended to include a Completed Operations Extension of 10 years after the completion of each project.

7.4.5 Professional Liability

PRASA maintains a Miscellaneous Errors & Omissions (E&O) liability policy through Chubb Insurance, providing a \$25M per claim limit and annual aggregate limit, subject to a \$150,000 per claim deductible. The policy is written on a claims-made basis, and claims and defense costs are included within the limit. The policy has a September 21, 2004, retroactive date. Coverage applies to contract administration, design, engineering, consulting, inspection, and construction management, including planning, permitting, regulatory compliance services, land acquisition, assisting in construction, procurement assistance, start-up services, testing, and extended commissioning under the PRASA multi-year CIP as modified by the PRASA Board of Directors from time to time. The policy includes a one-time reinstatement option for an additional premium equal to 100% of the annual premium.

7.4.5.1 Professional Liability Recommendations

MARSH made the following recommendations regarding PRASA's E&O policy:

1. The value of the contracts under the Capital Improvement Plan should be revised versus the limits carried to ensure that there is adequate risk transfer. Given the influx of funding for projects as a result of Hurricane María and other natural disasters, it is probable that PRASA is underinsured. In addition, we note that in our prior review, there was a \$50M aggregate. This has now been eliminated.
2. Consider amending the Defense and Claims Expenses (Section I, B). The second paragraph of the Defense and Claims Expenses agreement says the insurer is not obligated to investigate or defend a claim after the limit of liability has been exhausted, "*or after the Company (the insurer) has deposited the remaining available limit of liability into a court of competent jurisdiction.*" Defense costs can be high and can surpass the cost of damage or injury in the event of serious loss. A provision that allows the insurer to walk away from defending the insured by depositing the balance of the liability limit with a court means the insured can be left with the cost of defending itself from that point forward and forced to finance defense costs it had expected the insurer to pay. MARSH recommends that the broker attempt to delete the phrase shown in italics above, which allows the insurer to deposit the remaining liability limit with the court and avoid defense costs.
3. Consider amending Section IV. Conditions, Item G. Settlement. Item G says the insurer cannot settle any claim without the insured's permission. However, in the event the insurer recommends settlement, and the insured is unwilling to settle, the insurer then has the right to cease its defense efforts. In that event, the limit of liability

is then limited to the amount the claim could have been settled for at the time the insurer recommended settlement. This “hammer clause” is harsh compared to similar clauses in many policy settlement provisions.

4. Most E&O policy settlement provisions allow the insured not to settle upon the insurer's recommendation, and the insurer is then obligated to provide a defense and ultimately pay damages and defense costs. Some policies have a “soft hammer” clause where the Insured assumes part of the damages and defense costs in excess of the floor established when the carrier recommended the settlement. The percentage of damages and defense costs assumed by the Insured might vary from 50% to 25% of the damages and defense costs incurred above the settlement amount for which the claim could have been settled. MARSH recommends that an attempt be made to renegotiate this clause at the next renewal.
5. Consider amending Section III. Definition, Item G. Client, to mean any Third Party with whom the Insured has a formal written contract in place, eliminating “for the supply of the Insured's Professional Services in return for a fee”. Most claims under this policy are centered around contract disputes with contractors. The current policy definition does not accurately reflect the intent of an OCIP of this type.
6. Consider amending Insuring Agreement E. Consultants, Contractors, and Subcontractors to correctly reflect that services are provided to another Insured, PRASA.
7. Consider amending Section III Definition, Item CC, Professional Services to mean those services specified in Item 5 of the Declaration and performed by an Insured or by any person or entity for whom the Insured is liable. The current definition requires that the services be performed for others for a fee. The services provided by the contractors & subcontractors are for another Insured, PRASA.
8. Consider amending Section IV. Conditions, Item J. Other Insurance Clause and Endorsement 15, to allow contractors and subcontractors to use their E&O policies as a primary policy to meet the \$150K deductible requirement. Currently, Endorsement 15 stipulates that PRASA's policy shall be primary to any other policy.
9. Consider amending Section IV. Condition, Item L. Territory to eliminate the requirement that all Claims be brought in the Commonwealth of Puerto Rico, thus covering claims filed against PRASA worldwide.
10. Consider amending Section V., Item M., Contractual Liability exclusion to add a clarification at the end of the exclusion as follows: “however, this exclusion will not apply to Professional Services as defined in Item 5.” Many of the claims filed under the policy have to do with contract administration. This exclusion might preclude coverage for these claims.
11. Consider amending Endorsement #3 to include the schedule of projects referenced in the endorsement for clarity purposes.
12. Clarify in the Extended Reporting Period Amendment Endorsement (Endorsement 1) the intent to provide an Extended Reporting Period for all projects. Endorsement 1 includes an extended reporting period for all projects initiated or declared as commencing during the “Policy Period”. However, as worded, it appears to restrict coverage for projects begun prior to the policy inception date. We recommend that the endorsement language be amended to clarify that all projects commenced prior to the policy inception date, as part of the Capital Improvement Plan, are covered, or a schedule of projects specifically to be covered be included. MARSH recommends that the policy's September 21, 2004, retroactive date be used as a starting point for any ongoing projects, that the endorsement be amended to apply to all projects initiated during the “Policy Period” or subsequent to any applicable retroactive date. A specific list of projects would eliminate potential future controversies.
13. MARSH recommends taking advantage of the policy's September 21, 2004, retroactive date for any ongoing projects, and amending the Extended Reporting Period Amendment Endorsement to apply to all projects initiated during the “Policy Period” or subsequent to any applicable retroactive date.

7.5 Conclusions

Key recommendations for PRASA's insurance program are provided below.

1. The comprehensive review conducted by MARSH highlights the critical need for PRASA to regularly assess its insurance program to ensure coverage remains adequate and aligned with the changing value and nature of its assets. MARSH's detailed evaluation covered multiple policies and provided targeted recommendations across PRASA's insurance portfolio, identifying several key areas essential for effective risk management and financial protection.
2. Property insurance requires particular focus due to PRASA's substantial asset base, relatively high premiums, significant deductibles, and stop loss limits that are low compared to the total asset values. PRASA's Commercial Property Program covers nearly \$12.9B in assets, but its effectiveness is limited by a very high deductible of \$100M, which places considerable financial responsibility on PRASA before insurance coverage applies. In the event of a major loss, the maximum insurance recovery may cover only a small fraction of the total insured value, underscoring the urgent need to reassess coverage limits relative to PRASA's asset exposure.
3. A critical concern is the exclusion of Excavations coverage, which is especially significant given that nearly 49% of PRASA's TTV is tied to buried infrastructure such as underground pipelines. Excavation costs often represent a substantial portion of the total construction cost for these assets, which are highly vulnerable to catastrophic events like earthquakes. Excluding excavation coverage could prevent PRASA from recovering sufficient funds to repair or replace damaged infrastructure. If insurers maintain these exclusions, it is essential to adjust insurable limits downward accordingly to avoid paying premiums for coverage that cannot be claimed.
4. To address these challenges, PRASA must reconcile and update its asset valuations, conduct a thorough claims analysis to evaluate loss experience in relation to the high deductible, and consider removing lower-risk properties from coverage to optimize insurance costs. A current asset appraisal is imperative to reflect the value of PRASA's fixed assets accurately. Additionally, conducting a comprehensive PML study using updated asset values is crucial to quantify potential losses from catastrophic events such as earthquakes and floods, and to determine whether existing insurance limits provide sufficient protection.
5. PRASA should prioritize these assessments and policy adjustments to ensure its insurance program offers adequate financial protection and aligns with best risk management practices, reflecting PRASA's evolving risk profile and operational needs.
6. Regarding cyber liability insurance, PRASA's current policy offers a basic level of protection but includes several exclusions and limited terms that may leave the Authority vulnerable to significant cyber and physical risks. MARSH recommends renegotiating and enhancing the policy to better reflect industry best practices and PRASA's unique exposure. This includes adding critical coverages for breach costs, terrorism-related cyber-attacks, and emerging threats such as active assailant incidents. Implementing these improvements will strengthen PRASA's resilience against cyber incidents and physical attacks, providing more robust financial protection and supporting operational continuity in an increasingly complex risk environment.

8 System Assets and Financial Analysis

8.1 Introduction

Following the MAT (as amended), Arcadis hereby provides a statement of the estimated cost of all additions to the System and the retirements of property made in FY2025. The statement relies on the most recent preliminary data provided by PRASA. Also, Arcadis evaluated PRASA's financial forecast as included in the 2025 PRASA Fiscal Plan and as certified by the Oversight Board on June 27, 2025, and evaluated the appropriateness of rates and charges. A summary of the findings is provided in this section.

8.2 System Assets

Table 8-1 summarizes PRASA's preliminary book value of fixed (capital) assets as of June 30, 2024. Including land and other non-depreciable assets and "Construction (Work) in Progress", the preliminary ending book value balance of PRASA's capital (fixed) assets amounts to \$5,766.7M (net of accumulated depreciation). The fixed assets book value balance for FY2025 will be included in next year's CER.

Table 8-1 Preliminary Fixed Assets Balance through June 30, 2024 (\$, M)

FY2024 Fixed Assets	Book Value	Accumulated Depreciation	Net Book Value ¹
Fixed Assets	\$11,135.2	(\$6,412.2)	\$4,723.0
Construction (Work) in Progress	\$966.5	-	\$966.5
Land and Other Non-Depreciable Assets	\$77.2	-	\$77.2
Total Capital (Fixed) Assets	\$12,178.8	(\$6,412.2)	\$5,766.7

¹Based on audited financial statements for FY2024.

²Numbers may not add up due to rounding.

Table 8-2 summarizes the fixed assets changes from FY2023 to FY2024.

Table 8-2 Fixed Assets Changes (\$, M)

Fixed Assets Changes	FY2023 to FY2024 ¹
Fixed Assets (Net of Accumulated Depreciation)	(\$95.6)
Construction (Work) in Progress	\$266.5
Land and Other Non-Depreciable Assets	\$1.3
Total Fixed Asset Changes ²	\$172.0

¹Based on audited financial statements for FY2023.

²Numbers may not add up due to rounding.

8.3 PRASA's Rate Adjustments

In FY2023, after following the process required by Act 21-1985, PRASA implemented a new rate structure and charges, simplifying its rate to only two charges – a base charge and a consumption charge. Additionally, as part of this process, PRASA revised the charges for other service activities such as water connection charges, wholesale charges, etc. The following rate increases and annual adjustments were also approved:

- FY2023 - an increase of 4.95% to the base charges and 2.00% to the consumption charges.
- Annual increases for subsequent years of at least 2.00% but not more than 5.00% annually, up to a cumulative cap of 30.00%.

Starting on July 1st, 2024, the minimum required rate adjustments of 2.00% were implemented across the board annually for FY2025 and FY2026.

The projected accumulated benefit of future rate increases is \$344.5M through FY2030.

8.4 FY2025 Preliminary Results and FY2026-FY2030 Forecast Period

Arcadis reviewed the financial information provided by PRASA, the 2025 PRASA Fiscal Plan, and the FY2026 Annual Budget, certified and approved on June 27, 2025, by the FOMB. This section summarizes Arcadis's review and provides an assessment of PRASA's financial condition as it relates to PRASA's financial preliminary results for FY2025 and the reasonableness of PRASA's assumptions in the preparation of the five-year financial projections from FY2026-FY2030 (the forecast period). The sufficiency of the revenues necessary to support the projected operations and capital costs, as shown in Exhibit 1, was evaluated. The evaluation includes revenues, O&M expenses, debt service payments, and required deposits in compliance with the MAT (as amended). Additionally, Exhibit 1 includes the anticipated debt service coverage (DSC) for the forecast period.

The following information, provided by PRASA, was reviewed:

- MAT as amended and restated.
- Preliminary revenue and expense projections for FY2025.
- Revenue and expense projections for FY2026.
- The 2025 PRASA Fiscal Plan, as certified by FOMB on June 27, 2025.
- PRASA's FY2026 Annual Budget as certified and approved by FOMB on June 27, 2025.
- Debt service schedules for currently outstanding debt service, preliminary projected debt obligations, and DSCs.
- The amount required to be deposited in the Operating Reserve Fund to make the amount on deposit therein equal to the Operating Reserve Requirement.
- The amount required to be deposited in the Capital Improvement Fund.
- The amount, if any, to be deposited in or used from the Rate Stabilization Account of the Surplus Fund.
- The amount of Operating and Authority Revenues (as per amended MAT) is sufficient to meet the Rate Covenant for FY2026-FY2030.

- The amount expected to be received from federal programs to fund PRASA's CIP, such as the SRF and Rural Development Programs.
- The amounts expected to be received from FEMA and other federal agencies to fund PRASA's CIP.

8.4.1 Operating Revenues

As defined in the MAT, **Operating Revenues** "shall mean all moneys received by or on behalf of the Authority, including (i) the moneys derived by or on behalf of the Authority from the sale of water produced, treated or distributed by, or the collection, transmission, treatment or disposal of sewage by the Systems, (ii) any proceeds of use and occupancy insurance on the Systems or any part thereof, (iii) except as provided in the following sentence, any income from the investments made under this Agreement, (iv) any special assessments, including assessments in the nature of impact fees, (v) amounts, if any, paid from the Rate Stabilization Account into the Operating Revenue Fund in any FY minus the amounts, if any, paid from the Operating Revenue Fund into the Rate Stabilization Account during the same FY; and (vi) regularly scheduled payments received under any Qualified Swap or Hedge Agreement during such period. In no event shall Operating Revenues include (i) income from the investment of moneys on deposit to the credit of the Construction Fund, proceeds of insurance (except use and occupancy insurance) or condemnation awards (which are required to be deposited directly to the credit of the Capital Improvement Fund), (ii) proceeds of sales of property constituting a part of the Systems (which are required to be deposited directly to the credit of the Capital Improvement Fund), (iii) the proceeds of Bonds or other Indebtedness, (iv) any governmental grants or appropriations available to pay Current Expenses of the Authority, including grants or appropriations received by the Authority and specifically made for the payments of principal of and interest on obligations of the Authority or for reimbursing the Authority for such payments, (v) any amounts received from the Government of Puerto Rico on account of CGI (which is required to be deposited directly in the Commonwealth Payments Fund) or CSO (which is required to be deposited in the Commonwealth Payments Fund), (vi) any amounts transferred from the Budgetary Reserve Fund to the Trustee and (vii) any termination or similar payment under any interest rate swap or similar hedge agreement received by the Authority (which are required to be deposited directly to the credit of the Capital Improvement Fund)."

In connection with the issuance of the 2020 Senior Bonds, PRASA and the bondholders executed a Ninth Supplemental Agreement authorizing the amendment of certain provisions in the MAT, subject to, and effective upon compliance with Section 9.02 of the MAT. The proposed amendments include a change to the Operating Revenue definition, further discussed in Sections 8.5 and 8.6. These amendments will become effective upon receiving the written consent of the holders of certain other Outstanding Senior Indebtedness (Federal Lenders), as all the bondholders of the outstanding Senior Bonds have already consented to the change.

PRASA's annual Operating Revenue projections for FY2025 through FY2030, including the 2025 PRASA Fiscal Plan revenue-enhancing initiatives, presented on a cash basis following the MAT, are summarized in Table 8-3.

Table 8-3 PRASA Operating Revenues (\$ in M)

Fiscal Year	Operating Revenues
FY2025 Projection, based on Preliminary Results	\$1,177.4
FY2026 Annual Budget ¹	\$1,213.7
FY2027 Projected	\$1,238.8
FY2028 Projected	\$1,270.9

Fiscal Year	Operating Revenues
FY2029 Projected	\$1,309.8
FY2030 Projected	\$1,355.2

¹ As certified by the FOMB on June 27, 2025.

PRASA's Operating Revenue assumptions are discussed below:

1. **Service Revenues, Net of Subsidies (Exhibit 1, Line 1):** PRASA's single largest source of revenue is Service Revenues, which includes monthly base charges, volume rate charges for services, and the FY2025 annual rate adjustment. Table 8-4 shows PRASA's Service Revenues (Net of Subsidies) for FY2025 through FY2030.

Table 8-4 PRASA Service Revenues, Net of Subsidies (\$ in M)

Service Revenues Category	FY2025 Preliminary ¹	FY2026 Annual Budget	FY2027 Projected	FY2028 Projected	FY2029 Projected	FY2030 Projects
Base Fee and Volume Charges ²	\$1,155.4	\$1,155.7	\$1,156.6	\$1,156.6	\$1,155.9	1,154.3
Rate Increases ³	0.0	20.9	44.4	68.4	92.9	117.9
Total (Net of Subsidies)⁴	\$1,155.4	\$1,179.2	\$1,216.3	\$1,260.4	\$1,305.3	1,350.7

¹ Preliminary projection as included in the 2025 PRASA Fiscal Plan.

² Includes accumulated revenues generated from rate adjustments implemented through FY2025 (inclusive) and the adjustment for billings not collected (net of collections from prior years). Billing to collections adjustments are \$(23.7) in FY2025 and \$(23.6) for each year from FY2026 through FY2030.

³ Includes rate adjustments for FY2026 through FY2030 as presented in the 2025 PRASA Fiscal Plan.

⁴ Numbers may not add up due to rounding.

Table 8-5 summarizes the number of residential customers who were provided a subsidy for water and wastewater bills as of April 30, 2025.

Table 8-5 FY2025 Water and Wastewater Subsidized Customer Accounts

Subsidy	Number of Customers	Percent of Total Residential Customers ¹
PAN Subsidy	94,702	7.8%
TANF Subsidy	8,705	0.7%
ASES Subsidy	5,132	0.4%
Fixed Tariff (Public Housing)	48,829	4.0%

¹ Based on a total number of residential customers of 1,213,061 provided by PRASA as of April 30, 2025.

PRASA's Service Billings projections are based on certain assumptions, including growth and consumption assumptions that could be affected by various factors. Continued economic and population growth uncertainty could negatively impact the consumption patterns of PRASA customers. The 2020 Census data shows a total net population decline of about 440,000 as compared to the 2010 Census, which is an approximate -11.8% change in population¹⁷.

Further discussion of PRASA's Service Revenue assumptions is detailed below.

¹⁷ Source: <https://www.census.gov/library/stories/state-by-state/puerto-rico-population-change-between-census-decade.html>

Growth and Consumption Assumptions

Over the last five years, PRASA has experienced annual increases in its customers or accounts on an average of about 0.6% per year (2021-2025). However, in FY2025, the total billed consumption decreased by approximately 1.4% compared to FY2024. Figure 8-1 shows the customer accounts and average monthly billed consumptions from FY2021 through FY2025. Tables 8-6 through 8-8 summarize the customer accounts, the average monthly billed consumption by class, and per account for FY2024 and FY2025, respectively.

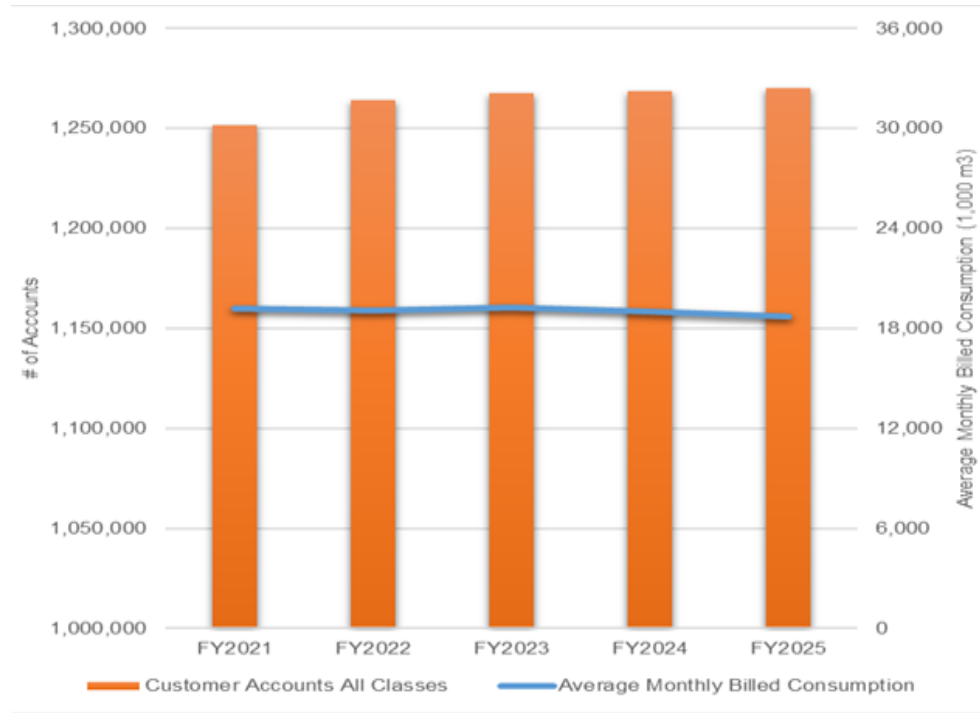


Figure 8-1 Customer Accounts and Average Monthly Billed Consumption FY2024 through FY2025

Table 8-6 PRASA Customer Accounts

Fiscal Year	Customer Class				Total
	Residential	Commercial	Industrial	Government	
FY2024 ¹	1,209,107	49,890	721	8,660	1,268,375
FY2025 ²	1,210,753	50,194	711	8,679	1,270,337
% Difference	0.1%	0.6%	-1.4%	0.2%	0.2%

¹ Number of accounts by customer class through June 30, 2024.

² Number of accounts by customer class through May 31, 2025.

Table 8-7 Average Monthly Billed Consumption by Class (1,000 Cubic Meters)

Fiscal Year	Customer Class				Total
	Residential	Commercial	Industrial	Government	
FY2024 ¹	13,622	2,226	1,238	1,924	19,011
FY2025 ²	13,432	2,210	1,142	1,959	18,742
% Difference	-1.4%	-0.8%	-7.8%	1.8%	-1.4%

¹ Based on billed consumption through June 30, 2024.² Based on billed consumption through May 31, 2025.

Table 8-8 Average Monthly Consumption per Account (Cubic Meters)

Fiscal Year	Customer Class				Equivalent Average
	Residential	Commercial	Industrial	Government	
FY2024 ¹	11.27	44.63	1716.73	222.20	14.99
FY2025 ²	11.09	44.02	1605.87	225.68	14.75
% Difference	-1.5%	-1.4%	-6.5%	1.6%	-1.6%

¹ Based on information through June 30, 2024.² Based on information through May 31, 2025.

In FY2024 and FY2025, the average monthly consumption per account was 14.99 m³ and 14.75 m³, respectively. Consumption seems to have “leveled out” at lower average monthly consumption levels since the 2015 drought. Historically, PRASA has had significant water losses within the distribution system. Reducing NRW is a high-priority initiative, as it will have both revenue enhancement and expense reduction impacts on finances. Therefore, PRASA has invested in different departments within PRASA to implement various initiatives to reduce NRW.

In addition, according to the U.S. Census Bureau, Puerto Rico's population had a 1.4% annual decline between 2012 and 2020¹⁸. The Census data also reflects a decline of approximately 2.5% when comparing the July 1st, 2024, population of 3,203,295 to the population for 2020 of 3,285,874. This population decline trend could be one of the reasons for the water consumption reduction pattern experienced in recent years. However, this significant population decline was not reflected in PRASA's number of active accounts.

Table 8-9 contains the projected macroeconomic indicators included in the 2025 PRASA Fiscal Plan. These indicators include a projection of annual population change and a projection of annual change in Gross National Product through FY2030.

¹⁸ The U.S. Census Bureau shows Puerto Rico population estimate as of July 2012 was 3,634,488 and 3,285,874 as of April 2020 (2020 Census data). The July 1st, 2024, population estimate was 3,203,295 per the U.S Census Bureau.

Table 8-9 Macroeconomic Indicators Assumption for Service Revenue Projection

FY	Population Change (Compared to the previous year)	Gross National Product Change (Compared to the previous year)
2026	0.04%	-0.14%
2027	0.04%	1.03%
2028	-0.03%	0.57%
2029	-0.10%	0.14%
2030	0.20%	0.01%

Considering the projected leveling off in population and the decrease in average monthly billed consumption per account of the past five FYs, Arcadis finds the forecast period amounts for Service Billings reasonable.

Rate Increases and Rate Structure Adjustment

Refer to Section 8.3 for updates on PRASA's rate structure. Note that for FY2025, the 2025 PRASA Fiscal Plan projects a 2.0% annual rate adjustment for all customer segments. For FY2026 and beyond, PRASA is also projecting a minimum of 2.0% (up to a maximum of 5%) annual rate adjustment across all customer segments, resulting in additional revenues of \$20.9M, \$44.4M, \$68.4M, \$92.9M, and \$117.9M from FY2026 through FY2030, respectively.

According to the 2025 PRASA Fiscal Plan, rate adjustments are necessary for PRASA to balance its budget and keep up with increasing operational expenses, and are critical for the Authority to achieve fiscal responsibility. Additionally, the rate adjustments are expected to provide PRASA with adequate levels of liquidity for funding its CIP. The 2025 PRASA Fiscal Plan assumes that the additional revenues from the annual rate adjustments will provide PRASA with sufficient funding to meet its current obligations.

Arcadis believes that PRASA's assumptions for Service Revenues are reasonable based on historical results and the above assumptions. In addition, the following items should be noted:

- Ongoing economic pressures and a declining population, along with other economic factors, may continue to significantly impact consumption patterns, potentially leading to further decreases in overall consumption and/or the number of PRASA customers.
- Future rate increases could vary depending on PRASA's revenue and expense results, as well as PRASA's ability to achieve the expected results from the initiatives included in the 2025 PRASA Fiscal Plan. Alternative revenue-enhancing and cost-saving measures may be attempted before PRASA adjusts its rate over the minimum 2% increase.

Adjustment for Billings Not Collected

Adjustments for billings not collected are netted from PRASA's FY2025 preliminary results and forecast period Service Billings as presented in Exhibit 1, Line 1. For FY2025, collections are projected at 98%, and for subsequent years, PRASA has projected to maintain the collections rate at an average of 98%. Since FY2022, the collection rate has returned to levels of over 98% on average.

Arcadis finds PRASA's budgeted amount reasonable. However, given Puerto Rico's ongoing economic and fiscal challenges, PRASA should closely track shifts in economic indicators and trends in revenue collection. Also, the assumed rate of billings not collected could be materially affected if: 1) the proposed rate increases, even when moderate, cause the customer's payment delinquency rate to increase, or 2) economic conditions in Puerto Rico deteriorate further.

2. **Transfers to/from the Rate Stabilization Account (Exhibit 1, Line 2):** Following the MAT, a Rate Stabilization Account, the balance of which is determined in the annual budget, shall be established by PRASA. This account is established within the Surplus Fund, which contains any remaining money after all required deposits are made. Equivalent monthly deposits during the FY must be made into the account equal to the balance outlined in the annual budget. In compliance with the MAT, Operating Revenues shall include all transfers from the Rate Stabilization Account minus any deposits made to the Rate Stabilization Account during the same FY. For the FY2025 projections, PRASA has assumed a transfer from the Rate Stabilization Account of \$17.5M. According to the 2025 PRASA Fiscal Plan, the RSA is projected to be used in FYs 2026 through 2028, in the amounts of \$30M, \$18M, and \$6M, respectively, to cover increases in electricity, maintenance, and payroll costs in future years.
3. **Other Income (Exhibit 1, Line 3):** PRASA's Other Income includes Miscellaneous Income, Special Assessments (fees paid by developers), and income from other sources. Miscellaneous Income mainly includes interest income and other miscellaneous revenues. Special Assessments are fees developers pay for construction projects or new development connections. These fees apply to new water and sewer connections to the System. For example, FY2026 fees are \$500 each for water and sewer connections (\$1,000 total per unit for both). Special Assessments depend on the fees paid by developers for new projects. The current economic situation is expected to continue affecting the local housing market for the foreseeable future, as there has not been any material change.
4. PRASA's Other Income revenues for FY2025 preliminary projections totaled \$4.5M. This Miscellaneous Income is mainly from interest income and contributions from developers. PRASA projects \$4.5M in additional revenues annually for Other Income during the forecast period. While this is higher than historical averages for this line item, Arcadis finds PRASA's assumptions for Other Income reasonable due to higher-than-normal interest rates expected to boost interest income in the short term. Revisiting projections for this line item will be important if and when interest rates start to decrease.
5. **2025 PRASA Fiscal Plan Revenue Enhancing Initiatives (Exhibit 1, Line 4):** In addition to the rate adjustments discussed above, PRASA has also included the metering and customer service optimization benefits as a revenue-enhancing initiative in the 2025 PRASA Fiscal Plan. Additional revenues from this initiative are expected to be obtained from FY2026 through FY2030, as summarized in Table 8-10.

Table 8-10 2025 PRASA Fiscal Plan Revenue Enhancing Initiatives (\$ in M)

Revenue-Enhancing Initiatives	FY2026	FY2027	FY2028	FY2029	FY2030
	Projected	Projected	Projected	Projected	Projected
Metering Optimization/AMI Incremental Revenues	\$2.6	\$15.4	\$35.3	\$56.5	\$78.5
Total Additional Revenues¹	\$2.6	\$15.4	\$35.3	\$56.5	\$78.5

¹No additional revenues were included in FY2025 from other revenue-enhancing initiatives.

Metering Optimization

The main objectives of this initiative are to provide resilient meter infrastructure, efficiency and customer service optimization, and commercial water loss reductions through the AMI project. According to the 2025 PRASA Fiscal Plan, by increasing the resiliency and accuracy of water meters, PRASA will be able to transition away from estimated commercial losses and achieve greater precision in its measurements and visibility of the situation of its service areas. In addition, by reducing the uncertainty of the System's apparent losses (commercial losses), PRASA will be able to recover revenues lost to theft and unmetered usage and determine with increased accuracy the volume of real physical water losses. With the implementation of this initiative, PRASA expects to be able to plan its CIP needs and guide the R&R of its linear water mains to reduce physical losses.

Arcadis continues to provide program management and technical support to the AMI program. The contract was signed for the Full Deployment Equipment and Technology, and the notice to proceed was issued to Utility Metering Solutions, LLC (UMS) on November 14, 2025. The Installation of the meters is scheduled for July 2026.

8.4.2 Authority Revenues (Other Sources of Revenues)

As defined in the MAT **Authority Revenues** “shall mean Operating Revenues plus (i) any governmental grants or appropriations available to pay Current Expenses of the Authority, including grants or appropriations received by the Authority and specifically made for the payments of principal of and interest on obligations of the Authority or for reimbursing the Authority for such payments, (ii) any amounts received from the Government of Puerto Rico on account of CGI (which is required to be deposited directly in the Commonwealth Payments Fund) or CSO (which is required to be deposited in the Commonwealth Payments Fund), (iii) any amounts transferred from the Budgetary Reserve Fund to the Trustee and (iv) any amounts received by the Authority from any source of funding that does not otherwise constitute Authority Revenues as reimbursement for Costs of Improvements paid by the Authority in the current or the immediately preceding three FYs from Operating Revenues.”

PRASA does not project any additional sources of revenue. Therefore, PRASA's Authority Revenues are equivalent to the Operating Revenues for the forecast period from FY2025 through FY2030.

8.4.3 Operating (Current) Expenses

As defined in the MAT, **Current Expenses** “shall mean the reasonable and necessary current expenses, incurred by the Authority in the ordinary course of business, calculated on an accrual basis, of maintaining, repairing and operating the properties constituting the Systems or causing said maintenance, repair and operation, which expenses shall exclude depreciation, reserves for allowances for doubtful accounts and other non-cash reserves or expenses. For purposes of the Rate Covenant and the Annual Budget required by Section 7.02 of the MAT, Current Expenses will be calculated on an accrual basis. For all other purposes of the MAT, Current Expenses will be calculated on a cash basis. Notwithstanding any accounting treatment to the contrary, the amount of any termination or similar payment under any interest rate swap or similar hedge agreement shall, if payable by the Authority, not be taken into account in computing Current Expenses to the extent the same is paid by or on behalf of the Authority from the proceeds of any Indebtedness.”

In connection with the issuance of the 2020 Senior Bonds, PRASA and the bondholders executed a Ninth Supplemental Agreement authorizing the amendment of certain provisions in the MAT, subject to, and effective

upon compliance with Section 9.02 of the MAT. The proposed amendments include a change to the Operating Revenue definition, further discussed in Sections 8.5 and 8.6. These amendments will become effective upon receiving the written consent of the holders of certain other Outstanding Senior Indebtedness (Federal Lenders), as all the bondholders of the outstanding Senior Bonds have already consented to the change.

PRASA's Operating (Current) Expenses are presented on an accrual basis as required by the MAT. PRASA's preliminary Operational Expenses for FY2025 and operating expense projections for FY2026 to FY2030, net of (i) capitalized expenses, (ii) the 2025 PRASA Fiscal Plan expense reduction initiatives, and (iii) the 2017/2022 Hurricanes impact recoveries, are presented in Table 8-11.

Table 8-11 PRASA Operating Expenses (\$ in M)

Fiscal Year	Operating Expenses without FEMA Reimbursements	Operating Expenses net of FEMA Reimbursements
FY2025 Preliminary	\$877.4	\$870.2
FY2026 Annual Budget	\$909.8	\$904.9
FY2027 Projected	-	\$933.7
FY2028 Projected	-	\$938.4
FY2029 Projected	-	\$956.7
FY2030 Projected	-	\$965.5

Note: PRASA is not forecasting any FEMA expense reimbursements beyond 2026 related to impacts from hurricanes or other natural disasters.

PRASA's projections for Operating (Current) Expenses and associated assumptions are discussed below. Note that for certain expense categories, PRASA has assumed that expenses will increase year-over-year at an inflation rate as included in the 2025 PRASA Fiscal Plan, incorporating the FOMB's inflation rate projections, averaging about 1.68% for the forecast period (FY2026 through FY2030). Puerto Rico's inflation rate at the end of May 2025 was recorded at about 1.0%, and projections show an increase to approximately 2.0% by June 2026¹⁹.

1. **Payroll and Benefits (Exhibit 1, Line 11):** Payroll and Benefits, before capitalization, continue to be PRASA's largest expense category.

- PRASA's FY2025 Payroll and Benefits are projected at \$329.2M.
- For FY2026, PRASA is projecting Payroll and Benefits of \$342.1M, incorporating the projected impact of salary pay scale adjustment currently under review.
- For the remainder of the forecast period, the 2025 PRASA Fiscal Plan is projecting the Payroll and Benefits expense to increase annually on average by approximately 1.99% as follows:
 - FY2027 = \$344.5M
 - FY2028 = \$348.6M

¹⁹ Source: Trading Economics (<https://tradingeconomics.com/puerto-rico/inflation-cpi>)

- FY2029 = \$359.8M
- FY2030 = \$370.0M

The following main assumptions were applied to develop the Payroll and Benefits Costs according to the 2025 PRASA Fiscal Plan:

- Headcount of 4,500 employees for FY2025, increasing gradually until reaching 4,700 employees by FY2029.
- Minimum salaries are based on current legislation and are projected to increase based on preliminary updated job classification and compensation plans.
- Compliance with the Fiscal Plan Compliance Act (Act 26-2017) as amended, including the following benefits:
 - Maximum overtime factor of 1.5 times the normal pay, and
 - Accrual of a maximum of 15 vacation days.
- Eighteen days of sick leave per year as set forth by Act 176-2019.
- Healthcare plan costs, based on proposals received for FY2025, increased by projected healthcare cost inflation thereafter.
- Pension costs are projected as a "PayGo" expense based on the information provided by the Employees Retirement System (ERS).

Headcount and Overtime Assumptions

As of March 31, 2025, PRASA had a total headcount of 4,333 employees, and is expected to increase to 4,750 FTE by the end of FY2025. PRASA expects to reach its revised optimal headcount level of 4,700 FTEs by FY2029.

Based on the FY2025 projections, the current overtime level is approximately 9.4% of total payroll costs. In its FY2026 Annual Budget, PRASA has assumed an overtime rate of 9.1% (as a percentage of net payroll cost). Overtime is expected to reduce from 9.1% in 2026 to 8.4% in 2030.

Legislated Acts Assumptions

Act 26-2017 and Act 176-2019 – Act No. 26 was enacted on April 29, 2017 (Act 26-2017) to ensure compliance with the Government's Fiscal Plan approved and certified by the Oversight Board on May 13, 2017, and re-certified post-Hurricanes Irma and María on June 29, 2018. Act 26-2017 supersedes any previous act. Among other measures, Act 26-2017 requires all marginal benefits to be the same for all Government of Puerto Rico employees, including all public agencies, instrumentalities, and corporations, such as PRASA. The act froze and reduced some payroll benefits or compensation, including vacation and sick leave, payout terms of accrued and unused vacation leave, and bonuses. Currently, PRASA employees' benefits include the following:

- Vacation leave may be accrued up to 15 days by the end of each natural year, with up to 60 days of total accumulated carryover.
- Sick leave is accrued at a rate of 18 days per year and may be accrued up to 90 days. Accrued and unused leaves will not be paid out, except for vacation leave accrued up to 60 days.
- Elimination of all bonuses, except for Christmas bonuses, which shall have a maximum of \$600.
- Overtime will be compensated at a maximum rate of 1.5x the regular hourly salary.

The impact of Act 26-2017 and Act 176-2019, as amended, was incorporated in PRASA's Payroll and Benefits costs for the forecast period.

2. **Voluntary Pre-Retirement Program (Act 211-2015):** As a result of the fiscal crisis, the Puerto Rico Government enacted Act No. 211 on December 8, 2015 (Act 211-2015), which created a "Voluntary Pre-Retirement Program". Act 211-2015 intends to create a program *"whereby eligible employees of the Government of the Commonwealth of Puerto Rico may voluntarily separate from service by receiving incentives until they meet the requirements for retirement; provide for the requirement of credited years of service needed to qualify for this Program; establish the timeframe for employees to exercise their option to avail themselves of the Voluntary Pre-Retirement Program; provide the special incentives that shall be granted to employees who avail themselves of the Program; provide the requirements needed to implement the Program; and for other related purposes"*.

The program offered incentives to certain eligible employees to voluntarily retire early and receive compensation equal to 60% of their average salary, payout of unused vacation and sick leaves (as per Act 66-2014), and keep their health insurance coverage for two years. These incentives are applicable until they meet the requirements for full retirement. Consequently, the program attempts to reduce the workforce progressively and voluntarily, thus allowing the economy to undergo a transition process. Besides reducing expenses, Act 211-2015 stipulates that the resulting vacant positions from the retirement program be eliminated and that agencies take administrative or operational measures to restructure without these positions. However, the Puerto Rico Office of Management and Budget (OMB) might authorize maintaining positions if certified to be essential and per the plan submitted by PRASA.

Some eligible PRASA employees occupied managerial or supervisory positions, which may create organizational challenges. As of March 31, 2025, 141 employees were retired under the Voluntary Pre-Retirement Program.

Collective Bargaining Agreements Assumptions

On April 6, 2021, PRASA received a partial labor agreement proposal from UIA, its largest labor union. UIA requested that PRASA provide financial information to develop a proposed comprehensive revision to PRASA's CBA, with UIA incorporating amendments to clauses with economic impact. After further discussions by the parties, in February 2022, PRASA and UIA signed a Negotiation Agreement. The Negotiation Agreement, by which the parties mediate before the Puerto Rico Department of Labor, provides for negotiating revised pay scales, subject to PROMESA and the Fiscal Plan compliance.

Under the Negotiation Agreement, either party can notify the other of its intention to negotiate a revised CBA at least 90 days before each July 1st, commencing on July 1st, 2022. The CBA will be extended for an additional year if such notification is not received at least 90 days before July 1st. As of January 2025, the required 90-day notice had not been received, resulting in the extension of the existing CBA until July 1st, 2026.

Regarding the CBA with HIEPAAA, neither party provided the required notice of its intention to negotiate a new CBA before the CBA would be deemed automatically extended for another year. As a result, and as required by Act 9-2021, the HIEPAAA CBA has been extended for an additional year to July 1st, 2026.

On July 1st, 2022, based on a comprehensive analysis done by a third party and agreed upon between UIA, HIEPAAA, and the Managers Association, new pay scales were implemented for PRASA's employees, providing a minimum salary increase. An incentive for licensed plant operators and electromechanical staff (critical operational positions that are challenging to recruit for and retain) was also implemented.

In March 2023, the UIA requested to negotiate several economic and non-economic clauses in the CBA. On September 15, 2023, PRASA agreed with the UIA on several clauses of mutual interest for both UIA and PRASA, including implementing the New Classification Plan.

On November 17, 2023, PRASA reached an agreement related to meal allowances and the use of information from technology devices. The UIA Executive Committee approved the agreement, PRASA's Governing Board, and the Oversight Board.

The UIA requested that PRASA implement a salary increase as proposed in Puerto Rico House of Representatives Bill No. 1894, which was ultimately vetoed on May 10, 2024. Following the veto, the UIA organized demonstrations and a work stoppage. To resolve the labor dispute and facilitate the implementation of a new Classification Plan, PRASA proposed a one-time payment of \$1,000 to each UIA employee, which the UIA accepted. On October 7, 2024, the Oversight Board approved the one-time payment, with the condition that no further negotiations with economic implications would occur until the UIA approves a new Classification Plan, as stipulated on November 27, 2024.

The Oversight Board reviewed the updated Compensation and Classification Plan and requested a revision of the reference salaries. This review is currently in progress.

Pension Costs Assumptions

As PRASA's employees and retired employees participate in the ERS, PRASA is responsible for the portion of the net pension liability attributable to its employees.

As provided in a circular letter from the DOT on June 27, 2017 (Number 1300-46-17), beginning in FY2018, employers that participate in the ERS will have to pay the pension benefit of their retired employees on a Pay-Go basis due to the lack of sufficient liquid assets in the ERS. Therefore, PRASA's FY2025 preliminary projections, FY2026 Annual Budget, and financial projections consider the impact of fully funding the retirement (pension) benefit payments for PRASA's retired employees on a Pay-Go basis. Also, PRASA eliminated from its projections all the employer contributions to the retirement system, including the Cost-of-Living Allowance contribution and the Annual Additional Contribution to the ERS. The amount projected does not include any additional future contributions to the ERS. For FY2025, PRASA projects \$90M to cover employees' retirement benefits on a Pay-Go basis. In its FY2026 Annual Budget, PRASA forecasts \$90M in pension Pay-Go costs. Additionally, PRASA projects pension Pay-Go costs to be \$88M in FY2027, \$87M in FY2028, \$87M in FY2029, and \$87M in FY2030.

3. **Electric Power (Exhibit 1, Line 12):** PRASA's FY2025 preliminary projections for electric power total \$174.0M, \$11.4M less than the budgeted amount. The FY2026 Annual Budget assumes an electric power expense of \$191.7M for FY2026. The FY2026 Annual Budget is based on electric rates, as projected by the Oversight Board, of a standard PREPA/LUMA rate of \$0.267 per kWh. The proposed PREPA rate increase in FY2026 is due to increases in the base charge and the projected implementation of the pension and legacy charges, among other factors. The assumption of \$0.267 per kWh is considered reasonable. PRASA's electricity cost is highly sensitive to PREPA/LUMA rates, with an approximate \$6.0M per year impact on PRASA's expense per \$0.01 variation in the PREPA/LUMA rate. These rates result in projected electric power expenses of \$191.7M in FY2026, \$206.0M in FY2027, \$204.0M in FY2028, \$205.7 in FY2029, and \$208.3M in FY2030.

Arcadis finds PRASA's forecast period projection for Electric Power reasonable. As seen by the large increase in electricity costs included in the FY2026 Annual Budget, PRASA is susceptible to varying prices, and the budget does not include a contingency to manage any unforeseen cost increases. Therefore, close monitoring

of electric energy usage must continue, and PRASA shall adjust as necessary. Additional discussion on PRASA's Electric Power assumptions is provided below.

Electric Energy Tariff Assumptions

PRASA's LUMA rate as of February 2024 was \$0.269 per kWh. LUMA's projected rate applicable to PRASA for FY2026 is \$0.289 per kWh. In recent months, PRASA has indicated that the average PREPA (blended) rate cost has been around \$0.269 per kWh. For FY2026, the cost per kWh includes the expected rate increase, assuming the charges estimated to be required for PREPA pensions and legacy debt, currently under negotiation and therefore not yet implemented. The assumption of \$0.289 per kWh could be considered reasonable and conservative. The PREPA/LUMA rate per kWh is projected to increase to \$0.3111 in FY2027, then decrease in FY2028 to \$0.3070, followed by increases in FY2029 and FY2030 to \$0.3095 and \$0.3125 per kWh, respectively.

PRASA's projected results of electric power cost consider the projected and expected reductions in consumption through 1) regional measures (facility consolidations, minor repairs, operational optimization, and installation improvements) and 2) reductions in cost per kWh from PPAs that have been completed as part of PRASA's Energy Management Program.

Purchase Power Agreements

PRASA has factored in projected cost savings from its PPAs and other internal initiatives. Since 2011 and 2012, ten PRASA facilities have operated under PPAs utilizing photovoltaic energy, generating approximately 10M kWh annually at a blended rate of \$0.15 per kWh—lower than the rates charged by PREPA/LUMA. The annual savings from these PPAs fluctuate based on the actual rates charged by PREPA/LUMA.

Consumption Growth Rate Assumptions

The electric power consumption from PREPA in FY2025 totaled 647M kWh (compared to the 667M kWh budgeted). For FY2026, PRASA is projecting that its total consumption will be 668M kWh, of which 657M kWh will be power consumption bought from PREPA. For the forecast period, PRASA is projecting an average of 659M kWh of power consumption bought from PREPA.

4. **Maintenance and Repair (Exhibit 1, Line 13):** The FY2026 Annual Budget for Maintenance and Repair is \$93.2M, about \$0.8M more than the FY2025 preliminary projections. According to PRASA, the budgeted amount includes works related to the SSOMP required under the Consent Decree with USEPA, as recently amended. Arcadis finds the maintenance and repair expense budget reasonable. The 2025 PRASA Fiscal Plan projects Maintenance and Repair expenses of \$94.7M, \$96.3M, \$98.0M, and \$99.7M for FY2027 through FY2030, respectively. PRASA includes an annual increase for this cost category based on the projected annual inflation rate, as adjusted by non-recurring expenses.
5. **Chemicals (Exhibit 1, Line 14):** PRASA's FY2025 preliminary projections for chemical costs amount to \$78.1M, \$2.0M greater than the budgeted amount. As chemical costs are considered commodities and usually affected by inflation and worldwide demand and supply levels, PRASA's chemical costs have been on a steady rise during recent years because of cost increases and increased chemical consumption related to ensuring compliance with environmental and health standards. As a result, in FY2026, PRASA is budgeting approximately \$77.9M in chemical expenses. For FY2027 through FY2030, PRASA has applied an annual increase based on the assumed inflation rate (1.70% average) on chemical expenses, resulting in expenses of \$79.2M in FY2027, \$80.5M in FY2028, \$81.9M in FY2029, and \$83.3M in FY2030.

Arcadis believes PRASA's forecast period projections for chemical expenses are reasonable. However, chemical expenses could be higher than projected if inflation rates are higher than those assumed in the 2025 PRASA Fiscal Plan, consumption increases due to requirements from regulatory agencies, or inefficient chemical dosing.

6. **Insurance (Exhibit 1, Line 15):** Preliminary projections for insurance expenses in FY2025 total \$28.4M, \$0.4M higher than what was previously budgeted. PRASA has budgeted \$28.0M for insurance expenses in FY2026, which is \$0.4M lower than the FY2025 preliminary projection. PRASA has applied an annual increase based on the assumed adjusted inflation rate (1.70% average over the forecast period) on insurance expenses throughout the forecast period, resulting in insurance expenses of \$28.4M in FY2027, \$28.9M in FY2028, \$29.4M in FY2029, and \$29.9M in FY2030.

Arcadis believes the projections for insurance expenses are reasonable. Several recommendations have been provided to PRASA for its consideration to expand coverage and transfer additional risks through its insurance program. To the extent PRASA adopts these recommendations, premium costs may increase.

7. **Other Expenses (Exhibit 1, Line 16):** Other Expenses consist largely, among others, of costs directly related to operations, including rentals, security services, billings, collections-related costs, water purchases, sludge disposal, and water transport. FY2025 preliminary projections for Other Expenses total \$199.5M, \$8.2M more than included in the certified FY2025 Annual Budget (due mainly to higher projected costs related to professional services, asphalt materials and services, and contracted technical assistance). PRASA has included \$199.7M for Other Expenses in its FY2026 Annual Budget, which represents an increase of approximately 0.1% compared to the FY2025 preliminary projections. PRASA is projecting that Other Expenses will increase year-over-year based on the adjusted assumed inflation rate (1.70% average over the forecast period), resulting in Other Expenses of \$203.0M in FY2027, \$206.4M in FY2028, \$210.0M in FY2029, and \$213.6M in FY2030.

Arcadis has reviewed PRASA's projections for this expense category and finds the budget amount reasonable. However, PRASA should monitor actual costs, particularly for fuels and oils, given the projected increases that could materialize throughout the FY.

8. **2025 PRASA Fiscal Plan Operating and Capital Expense Savings Initiatives (Exhibit 1, Line 17):** The Operating and Capital Expense Savings initiatives included in the 2025 PRASA Fiscal Plan are the electricity cost reduction, AMI Meter Replacement project impact on costs, and new financing for CIP.

Table 8-12 presents the financial projection of these initiatives for the forecast period.

Table 8-12 2025 PRASA Fiscal Plan Operating and Capital Expense Savings Initiatives (\$ in M)

2025 PRASA Fiscal Plan Initiatives	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
	Preliminary	Annual Budget	Projected	Projected	Projected	Projected
Electricity Cost Reduction	-	-	-	\$3.6	\$3.5	\$13.7
AMI Meter Replacement	-	(\$2.4)	(\$3.9)	(\$3.3)	(\$2.0)	(\$1.1)
New Financing for CIP	\$155.3	\$254.5	\$323.6	\$241.2	\$115.1	\$61.0

2025 PRASA Fiscal Plan Initiatives	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
	Preliminary	Annual Budget	Projected	Projected	Projected	Projected
Total Expense Savings and New CIP Funding¹	\$155.3	\$252.1	\$319.7	\$241.5	\$116.6	\$73.6

Numbers may not add up due to rounding.

While PRASA is committed to the AMI meter replacement and electricity cost reduction initiatives, given the status of their development, and considering the coordination, planning, and implementation efforts still required to be completed, it is likely that the timing for achieving the projected benefits will not be as expected by PRASA. The new financing for CIP appears optimistic based on the recent execution rate of capital projects and available funding discussed in Section 2.

Electricity Cost Reduction

As the System's third-largest operating expense, PRASA must continue reducing electricity costs and consumption.

According to the 2025 PRASA Fiscal Plan, PRASA is negotiating a PPA agreement with a company (the "resource Provider") that will result in operating expense reductions. The PPA agreement would not require any payment from PRASA during the engineering, development, or construction phases of the facility, with payments only commencing when electricity is generated and wheeled to PRASA. Savings from this initiative are estimated based on the projected energy to be consumed from this PPA at the differential rate of the projected LUMA rate versus the projected rate for the Resource provider, plus the cost of wheeling.

Additionally, PRASA is focusing on projects or alternatives to reduce the unit cost per kWh through additional renewable/alternate energy projects, maximizing the availability of federal funds.

Based on the funding availability and project status, the following four microgrid projects are expected to be implemented and financed with hazard mitigation funds (FEMA-HMGP 406):

1. Superaqueduct RWPS: The project consists of implementing a microgrid for the RWPS, with an annual energy consumption of approximately 56M kWh, or approximately 9% of PRASA's yearly consumption. This pumping station would operate totally off-grid and would be powered by liquid natural gas and photovoltaic energy as the main energy source, combined with BESS. This project would increase resiliency for one of PRASA's main facilities, which pumps 100 MGD to one of PRASA's main water filtration plants that processes 20% of the island's total water production. The project is expected to be operational starting in FY2030.
2. Superaqueduct WTP: Project for the implementation of a microgrid at the Superaqueduct WTP, with a current annual energy consumption of approximately 2.2M kWh. This microgrid will be powered by photovoltaic energy (existing PPA photovoltaic system plus additional photovoltaic panels) combined with BESS. This microgrid project is expected to be operational starting in FY2030.
3. Santa Isabel WWTP: Project for the implementation of a microgrid at the Santa Isabel WWTP, with an annual energy consumption of approximately 3M kWh powered by photovoltaic energy combined with a BESS and, eventually, wind power (if viable). The project is expected to be operational starting in FY2030.

4. Maunabo WWTP and WWPS: Assumes the implementation of a microgrid at the Maunabo WWTP that will be converted to a WWPS with an estimated annual energy consumption of 0.3M kWh. This microgrid would be powered by photovoltaic energy combined with BESS and is expected to be operational starting in FY2030.

The actual electricity cost savings to be produced by these measures will largely depend on the funding availability, the cost of electricity supplied by PREPA/LUMA, the implementation timing, and the regulatory framework (for instance, the impact of the new net-metering framework to be defined by PREB in the future). The projected cost savings amount is expected to start in FY2028 at an amount of \$3.6M.

AMI Meter Replacement

Cost-effectively investing in water metering infrastructure is projected to result in long-term cost savings. Replacing existing mechanical meters with more precise smart meter technology is expected to offer benefits such as lower maintenance and repair costs. It is also expected to result in increased productivity and maximization of available resources, as discussed in the 2025 PRASA Fiscal Plan. This will include remote reading capabilities and real-time water flow data.

In FY2026, PRASA's Fiscal Plan projects an additional \$2.4M of expenses resulting from the implementation of this initiative; this is due to the expenses needed to start the program outweighing the level of savings. The net impact is additional costs of \$3.9M in FY2027, \$3.3M in FY2028, \$2.0M in FY2029, and \$1.1M in FY2030. These efforts are projected to result in net savings by FY2031.

New Financing for CIP

After restructuring the Federal Debt, PRASA recovered access to future funding from USEPA SRF Loans and the USDA RD Program. As a result, the FY2025 preliminary projections expect new financing for CIP through these two programs for \$155.3M for FY2025 and \$254.5M in the FY2026 Annual Budget. For the remainder of the forecast period, the 2025 PRASA Fiscal Plan projects to receive \$323.6M in FY2027, \$241.2M in FY2028, \$115.1M in FY2029, and \$61.0M in FY2030 from these programs for their CIP. These funds include additional appropriations available to PRASA under the BIL and SAHFI programs.

9. **Capitalized Expenses (Exhibit 1, Line 18):** PRASA contracted Arcadis during FY2022 to review and update the annual operating costs that are eligible to be capitalized to CIP. The recommendations included in the updated report reduce PRASA's capitalization rate from 3.7% (per a study completed in April 2017 by an external consultant hired by PRASA) to 2.7%. FY2025 preliminary projections for capitalized expenses amount to \$24.1M. PRASA has included in its FY2026 Annual Budget \$25.1M for capitalized expenses based on the capitalization rate of 2.7% of operating expenses. For FY2027 through FY2030, PRASA is projecting capitalized expenses of \$25.9M, \$26.0M, \$26.5M, and \$26.8M, respectively.

FEMA Reimbursements and Insurance Proceeds (Exhibit 1, Line 20): Arcadis reviewed the MAT, as amended, to determine the adequacy of the allocation of insurance proceeds and FEMA reimbursements/grants to be obtained due to the impact of hurricanes or other natural disasters. Arcadis requested PRASA's legal opinion on this matter. As provided by PRASA's legal advisor, FEMA funds shall not be treated as Operating or Authority Revenues. FEMA does not provide grants to substitute Operating Revenues. Rather, FEMA funds are directed at disaster-related expenses to be used exclusively to cover costs of eligible emergencies, permanent works, or resilience projects approved by FEMA. To the extent FEMA funds are received by PRASA, as mentioned, such funds shall not be subject to the gross pledge set forth under the MAT, as these funds cannot be used to pay bondholders. FEMA funds shall, therefore, be deposited to the credit of the Current

Expense Fund if they are intended to reimburse PRASA for Current Expenses. FEMA grants for repairing, replacing, or reconstructing the damaged or destroyed property shall be applied to the Capital Improvement Fund.

In its FY2025 projections, PRASA includes a net deposit of \$7.2M from FEMA funds to the credit of the Current Expense Fund for the reimbursement of PRASA's operating expenses concerning the impacts of declared disasters over the past eight years. In FY2026, PRASA has budgeted a net deposit of \$5.0M, mostly for reimbursement expected to cover expenses incurred to address the impacts of recent hurricanes or tropical storms. No additional deposits are included in the periods from FY2027 through FY2030.

8.5 Debt Service

8.5.1 Master Agreement of Trust

The MAT contains specific DSC requirements that must be met by PRASA, including, but not limited to, a Rate Covenant. As stated in the Rate Covenant defined in the 2012 MAT, as amended, PRASA has covenanted to establish and collect rates, fees, and charges so that it meets the following four independent requirements, which are calculated annually no later than six months after the end of each FY based on Operating Revenues and Authority Revenues outlined in PRASA's most recent audited financial statements:

- Operating Revenues shall be sufficient to be at least equal to 250% of annual debt service concerning Senior Indebtedness for the current FY.
- Operating Revenues shall be sufficient to be at least equal to 200% of annual debt service concerning Senior Indebtedness and Senior Subordinate Indebtedness for the current FY.
- Operating Revenues shall be sufficient to be at least equal to 150% of annual debt service concerning all Bonds and Other System Indebtedness for the current FY.
- Authority Revenues shall be sufficient to be at least equal to:
 - Annual debt service on Indebtedness
 - Current expenses
 - the amounts, if any, necessary to be deposited in any Senior Debt Service Reserve Account, Senior Subordinate Debt Service Reserve Account, or Subordinate Debt Service Reserve Account to restore the amount on deposit therein to the amount of the applicable Debt Service Reserve Requirement provided that each such Accounts will be deemed to be funded at the applicable Debt Service Reserve Requirement for so long as the deposits required by the MAT are being made;
 - the amount, if any, necessary to be deposited in the Operating Reserve Fund to maintain the balance therein at the Operating Reserve Fund Requirement; and
 - the amount, if any, necessary to be deposited in the Capital Improvement Fund and the Rate Stabilization Account of the Surplus Fund following the Annual Budget for the current FY.

Should PRASA decide to issue additional debt while any debt issued under the MAT (as amended) is outstanding, the additional bonds test (ABT) requirements of the MAT would also have to be met. The ABT is a measure of whether DSC will still be met after the proposed additional bonds are issued. The ABT requirements that PRASA must meet include the following:

- Senior Bonds ABT
 - Operating Revenues are at least equal to 2.5x Senior Bonds' maximum annual debt service.
 - Operating Revenues are at least equal to 1.5x maximum annual debt service on all System Indebtedness.
- Senior Subordinated Bonds ABT
 - Operating Revenues are at least equal to 2.0x combined Senior Bonds and Senior Subordinate Bonds' maximum annual debt service.
 - Operating Revenues are at least equal to 1.5x maximum annual debt service on all System Indebtedness.
- Subordinated Bonds ABT
 - Operating Revenues are at least equal to 1.5x maximum annual debt service on all System Indebtedness.

A summary of PRASA's MAT DSC and ABT requirements is presented in Table 8-13.

Table 8-13 2012 MAT DSC Requirements Summary, as amended

Lien Level	Debt Secured	DSC for ABT (MADS) ¹	DSC for Covenant Test	In Default if DSC not Achieved?
Senior	2008, 2020, 2021, 2022 Bonds and SRF & RD Loans	2.5/1.5	2.5	Yes
Senior Subordinate	Not currently applicable	2.0/1.5	2.0	Yes
Subordinate	Not currently applicable	1.5	1.5	Yes
Below Subordinate	Not currently applicable	N/A	1.0	No
Below Subordinate	Not currently applicable	N/A	1.0	No

¹ Two tests apply to future debt. The first test is Operating Revenues divided by existing and proposed debt service (at the existing lien level); the second test is Operating Revenues divided by existing and proposed debt service (regardless of lien level) plus specified Reserve Fund deposits.

Following the MAT, the flow of funds shall be as follows:

- Senior, Senior Subordinate, and Subordinate debt (and any debt secured on a parity therewith) take priority over current Operating Expenses.
- CGI and CSO would continue to be funded/paid only after funding of current operating expenses and other funds, with priority over CGI and CSO.
- PRASA shall deposit all revenues in the Operating Revenue Fund to make the required deposits set forth below. The Trustee transfers the moneys on deposit in the Operating Revenue Fund to the following funds in the following order:
 - Senior Bond Fund – to fund principal and interest payments on Senior Indebtedness;
 - Senior Debt Service Reserve Fund – to fund deficiencies in the reserve fund upon the issuance of additional Senior Bonds or withdrawals, or valuation losses;

- Senior Subordinate Bond Fund – to fund principal and interest payments on Senior Subordinate Indebtedness;
- Subordinate Debt Service Reserve Fund – to fund deficiencies in the reserve fund upon the issuance of additional Subordinate Bonds or withdrawals, or valuation losses;
- Subordinate Bond Fund – to fund principal and interest payments on Subordinate Indebtedness;
- Subordinate Debt Service Reserve Fund – to fund deficiencies in the reserve fund upon the issuance of additional Subordinate Bonds or withdrawals, or valuation losses;
- Current Expense Fund (a new fund under the MAT) – to fund current operating expenses of PRASA;
- Operating Reserve Fund – to fund Operating Reserve requirements and to pay reimbursement obligations on Operating Reserve Facilities;
- Capital Improvement Fund – to fund the Capital Improvement Fund Requirement;
- Commonwealth Payments Fund – to fund principal and interest payments on CGI and CSO; and
- Surplus Fund – to fund the Rate Stabilization Fund and, after that, for any lawful purpose.

In connection with the issuance of the 2020 Senior Bonds, PRASA and the bondholders executed a Ninth Supplemental Agreement authorizing the amendment of certain provisions in the MAT, subject to and effective upon compliance with Section 9.02 of the MAT. The proposed amendments, summarized below, are contained in the form of the Second Amended and Restated MAT (the “Second Amended and Restated Trust Agreement”). These amendments will become effective upon receiving the written consent of the holders of certain other Outstanding Senior Indebtedness (Federal Lenders), as all the bondholders of the outstanding Senior Bonds have already consented to the change.

The proposed amendments, as outlined in the Second Amended and Restated Trust Agreement, among other items, would:

1. *Revise the pledge of the Authority Revenues from a “gross revenue pledge” to a “net revenue pledge” by changing the order of monthly deposits of Revenues with the Trustee, such that the order of monthly deposits in the flow of funds to provide for the payment, both before and after the occurrence of an Event of Default, of Current Expenses prior to the Authority making monthly deposits for debt service on Bonds and Other System Indebtedness.*
2. *Revise the definition of “Annual Debt Service” to clarify that, consistent with the Authority’s historical calculation thereof, Annual Debt Service is calculated based on when the Authority is required to make deposits to the respective Bond Funds rather than when the date on which principal and interest is due and payable.*
3. *Change the term “Operating Revenues” to “Revenues” and clarify that such term does not include (a) revitalization charges imposed pursuant to Act 68-2018 or similar mandatory, non-bypassable charges imposed by law to secure securitization bonds and (b) any funds received from the federal government required to be used to pay Current Expenses or Costs of Improvements or required to reimburse the Authority for Current Expenses or for Costs of Improvements.*
4. *Amend the Rate Covenant coverage levels.*
5. *Amend the tests for the issuance of additional Bonds to require that Revenues provide the coverage levels.*
6. *Eliminate the references in the Trust Agreement to CSO, which obligations are not indebtedness of the Authority, not payable from Revenues, and would not cause the occurrence of an Event of Default if not paid.*
7. *Clarify the timing of delivery of audit reports to the Trustee and the CE.*
8. *Eliminate references to the Term Loan Fund and Budgetary Reserve Fund, which no longer exist; add a force majeure definition and modify the Current Expense Fund and Cost of Improvement definitions.*

9. *Amend the definition of Debt Service Reserve Facility to require that a provider of any such facility be rated in one of the two highest long-term rating categories by at least two nationally recognized statistical rating organizations instead of by two such organizations then rating the Authority's Bonds.*

The proposed amendments would be made under Section 9.02 of the MAT. However, these will not become effective unless and until the Federal Lenders have consented to that. PRASA cannot assure whether it will continue to seek all such consents when they will be obtained or if they can be obtained at all. Until the required consents have been obtained, the MAT will remain in effect without the proposed amendments.

8.5.2 Debt Service Coverage

A summary of PRASA's existing debt service obligations and coverages for FY2025 through FY2030 is presented in Exhibit 1 and summarized in Tables 8-14 through 8-17. Estimated debt service amounts include projected payments on the 2020, 2021, and 2022 Bonds, other existing debt, and payments for maintaining required debt service reserves, as applicable. Other System Indebtedness in parity with Senior bonds includes the SRF and USDA RD Loans, which started in July 2019 after the federal debt modification.

The CGI included until June 2019, the 2008 Revenue Refunding Commonwealth Guaranteed Bonds, the USDA RD Bonds, and the SRF Loans. On June 30, 2016, PRASA entered into various forbearance agreements with both (i) USDA and (ii) the Puerto Rico Infrastructure Financing Agency (PRIFA), the Department of Natural and Environmental Resources (DNER), and the PRDOH (all three for the SRFs), which were later extended in various occasions until July 2019 when agreements were reached between all parties.

Upon execution of the Seventh Supplemental Agreement of Trust dated July 26, 2019, the following amendments were made concerning the CGI:

1. Amendment to Section 1.02 of the MAT, Definition of "CGI" was amended to read as follows: "CGI" shall mean any obligations of the Authority that are designated as CGI by the Authority and Authority's PRASA Revenue Refunding Bonds, Series 2008 but shall not include any loans from the U.S Department of Agriculture, Rural Development, Rural Utilities Service or obligations of the Authority to the Puerto Rico Infrastructure Financing Authority evidencing revolving loans pursuant to the Puerto Rico Water Pollution control and Drinking Water Treatment Revolving Funds or any loans granted by the Commonwealth Revolving Funds under the provisions of the Federal CWA of 1972, as amended and the Federal SDWA of 1996, as amended.
2. Amendment to Section 2.20 of the MAT adding a paragraph regarding Trustee notifications to each Fiduciary for and Holder of (as applicable) in Other System Indebtedness.
3. Amendment to Section 8.10 of the MAT regarding Waivers of Events of Default.

Renegotiated terms of PRASA's SRF and RD debt obligations, reclassified as Senior Level Debt per the Seventh Supplemental Agreement of Trust dated July 26, 2019, are summarized in Table 8-14.

Table 8-14 Renegotiated Terms for SRF and RD Debt

Debt Category	SRF	RD
Outstanding Debt Balances, including future loans of \$26M for SRF and accrued interests for RD	\$595,777,017.21	\$402,931,464.55

Debt Category	SRF	RD
Term	30 years	40 years
Rate	0% until year 10 and 1.0% after that	2.0%
Payment Terms	Biannual principal-only payment of \$5M in Years 1-10; biannual principal and interest payments of \$13.7M in Years 11-30	Biannual principal and interest payments of \$5M in Years 1-10, increasing to \$8.5M in Years 11-40
Maturity Date	07/01/2049	07/01/2059
Debt Level	Senior	Senior

On December 17, 2020, PRASA issued its 2020 Series A and Series B Revenue Refunding Bonds (the “2020 Senior Bonds”) for \$1,351.3M and \$18.8M, respectively, to refund some of its outstanding 2008 senior bonds. The proceeds of the 2020 Senior Bonds were used to:

1. Refinance the then-outstanding 2008 Revenue Bonds Series A and Series B (Senior Lien) issued under the MAT, excluding the non-callable convertible capital appreciation bonds with a balance of \$87.2M as of the refunding date, which were subsequently due in full on June 30, 2024.
2. Refinance all of PRASA's currently outstanding Revenue Refunding Bonds, 2008 Series A and 2008 Series B, each guaranteed by the Government of Puerto Rico.
3. Pay costs of issuance of the 2020 Senior Bonds. The par amount of the refunded bonds amounted to \$1,427.6M (the 2020 Senior Bonds were issued at a premium to par).

The issuance of the 2020 Senior Bonds to refund a portion of PRASA's senior bonds resulted in a reduction in total debt service payments over the next 27 years of approximately \$348.2M and the termination of the Commonwealth Guarantee over the Revenue Refunding Bonds, 2008 Series A and B. This results in an average annual debt service savings of about \$13M.

The 2020 Senior Bonds are classified as Senior Debt and are not guaranteed by the Commonwealth. Therefore, no CGI remains outstanding after the Federal Debt modification in July 2019 and the issuance of the 2020 Senior Bonds.

On August 25, 2021, the Authority issued its 2021 Senior Bonds in a total principal amount of \$1,089.8M. In addition, on June 15, 2022, PRASA completed the issuance of its 2022 Senior Bonds in a total principal amount of \$565.2M to refinance in the aggregate all of the Authority's 2012 Series A and B senior revenue bonds (2021/2022 Senior Bonds). The issuance of the 2021/2022 Senior Bonds results in a reduction in average annual senior debt service of \$22M, total debt service savings to final maturity of approximately \$569.7M or approximately \$361.5M NPV savings, representing 20% of the refunded par amount.

A summary of PRASA's debt service obligations and projections for FY2025 and the forecast period are presented in Tables 8-15 and 8-16, respectively. FY2025 debt service obligations totaled \$245.7M of Senior lien obligations.

Table 8-15 FY2025 Debt Service Obligations and Preliminary Results (\$ in Thousands)

Debt Category	FY2025 Preliminary Results
Senior Debt	\$245,745
Senior Subordinated Debt	-
Subordinated Debt	-
Total	\$245,745

Table 8-16 FY2026-FY2030 Debt Service Obligations (\$ in Thousands)

Debt Category	FY2026 Projection	FY2027 Projection	FY2028 Projection	FY2029 Projection	FY2030 Projection
Senior Debt	\$255,653	\$260,973	\$267,805	\$273,794	\$302,259
Senior Subordinated Debt	-	-	-	-	-
Subordinated Debt	-	-	-	-	-
Total Debt	\$255,653	\$260,973	\$267,805	\$273,794	\$302,259

The DSC results presented in Table 8-17 for the forecast period have been calculated using the Rate Covenant requirements per the MAT, as amended, and debt service obligations.

Table 8-17 FY2025-FY2030 Debt Service Coverage

Debt Service Level	DSC Requirement	FY2025 Preliminary DSC	FY2026 DSC	FY2027 DSC	FY2028 DSC	FY2029 DSC	FY2030 DSC
Senior Debt ¹	2.50	4.79	4.75	4.75	4.75	4.78	4.48
Senior Subordinated Debt ¹	2.00	4.79	4.75	4.75	4.75	4.78	4.48
Subordinated Debt ¹	1.50	4.79	4.75	4.75	4.75	4.78	4.48
All Obligations ²	1.00	1.00	1.00	1.00	1.00	1.00	1.00

¹ DSC calculated for Operating Revenues.

² DSC calculated for Authority Revenues.

As shown in Table 8-17, PRASA's Operating Revenues and Authority Revenues are projected to be sufficient to meet Senior Lien debt service payments during the forecast period. Also, PRASA projects to meet the 1.0x DSC

on All Obligations every year of the forecast period. The final DSC for FY2025 will be recalculated after the FY2025 Audited Financial Statements issuance to determine if PRASA met the Rate Covenant Requirements.

8.6 Reserves and Other Deposits Requirements

8.6.1 Debt Service Reserve Funds

Following the MAT, as amended, Reserve Funds for Senior Debt, Senior Subordinate, and Subordinate Debt must be maintained in a reserve account at least equal to:

- (i) The amount outlined in the Supplemental Agreement authorizing the issuance of a particular Series of Bonds or
- (ii) If not otherwise specified in a Supplemental Agreement authorizing the issuance of a particular Series of Bonds, the lesser of:
 - Maximum Annual Debt Service on the Outstanding Bonds secured by such Account, payable in any FY for the related Bonds.
 - Ten percent (10%) of the proceeds of the Outstanding Bonds secured by such an Account, calculated following the Code.
 - 125% of the average Annual Debt Service for the payment of the principal of and interest on the Outstanding Bonds secured by such Account.

The 2008 Bonds were the only bonds outstanding requiring a debt service reserve, which PRASA maintained fully funded until July 1st, 2024, the date of the last payment on the remaining 2008 Bonds. With the last payment made, there is no requirement for PRASA to maintain a debt service reserve further. Should future bond issuances include required reserves, PRASA expects to comply with the required reserve with part of such future bond issuances' proceeds, as necessary.

8.6.2 Operating Reserve Fund

The Sixth Supplemental Agreement to the MAT amended Section 5.10 (a) and (c) of the Operating Reserve Fund to read as follows:

- (a) In each month, the Trustee shall deposit to the Operating Reserve Fund (i) beginning on the first Business Day of the month and after making the deposits required by Section 5.02 (b) (i) through (vii), an amount of the Authority Revenues equal to 1/60 of the amount, if any, necessary to restore the amount on deposit therein to the Operating Reserve Requirement and to pay interest on any reimbursement obligations due with respect to an Operating Reserve Facility. Earnings on moneys held in the Operating Reserve Fund shall be retained therein.*
- (b) In lieu of or in addition to cash or investments, at any time, the Authority may cause to be deposited to the credit of the Operating Reserve Fund, an Operating Reserve Facility, in the stated amount equal to all or a portion of the application Operating Reserve Requirement. Any withdrawals from the Operating Reserve Fund made in accordance with the above paragraph (b), shall be made first from any cash or investments on deposit therein and then to the extent no such cash or investments are available, from a draw on any Operating Reserve Facility.*

Per the Sixth Supplemental Agreement to the MAT, PRASA cash funded the reserve in full after making deposits of \$8.5M in the Operating Reserve Fund during FY2025. Based on the budget included herein, PRASA's reserve is already fully met in FY2026; thus, PRASA is not projecting any deposits to the Operating Reserve Fund during FY2026. In future years, PRASA is projecting to deposit the required funds in the Operating Reserve Fund to align the balance with the increases in Operating Expenses, seeking always to maintain three months of current expenses in deposit.

8.6.3 Capital Improvement Fund

Following the MAT, a Capital Improvement Fund must be established and funded for each FY in an amount equal to the greater of:

- (i) The amount set forth in the annual budget for such FY or
- (ii) The amount recommended by the Consulting Engineer.

Equal monthly deposits over the FY must be deposited into the Fund to make the balance of the Fund equal to the annual requirement. In addition, the following must be credited to the Fund:

- (i) The proceeds of any condemnation awards,
- (ii) The proceeds of insurance (other than use and occupancy insurance),
- (iii) The proceeds of sales of property constituting a part of the Systems, and
- (iv) The proceeds of any termination or similar payment received by PRASA under any interest rate swap or similar hedge agreement.

PRASA projected deposits of \$52.8M from Operating Revenues into the Capital Improvement Fund during FY2025 to finance a portion of its CIP. This deposit is net from the FEMA/American Rescue Plan Act (ARPA) proceeds and other restricted funds and from the 2025 PRASA Fiscal Plan New Federal Funds initiative benefit, estimated at \$157.3M (excluding the costs related to such funds as presented in the debt service requirement) for FY2025.

In its FY2026 Annual Budget, PRASA projects to deposit to the Capital Improvement Fund \$52.7M from Operating Revenues, net from FEMA/ARPA proceeds and other restricted funds, and net from the 2025 PRASA Fiscal Plan New Federal Funds initiative estimated at \$264.0M (excluding the costs related to such funds as they are presented in the debt service requirement).

From FY2027 through FY2030, PRASA projects to make deposits in the Capital Improvement Fund in the amounts of \$43.8M, \$64.3M, \$79.0M, and \$87.1M from Operating Revenues, net from the New Federal Funds initiative estimated at \$323.6M, \$241.2M, \$115.1M, and \$61.0M, respectively (excluding the costs related to such funds as they are already included as a part of the debt service).

8.6.4 Construction Fund

Following the MAT, a Construction Fund must be established and funded with the following deposits:

- (i) the amounts required to be deposited under the resolution of the Board authorizing the issuance of a particular Series of Bonds or the applicable Supplemental Agreement and,
- (ii) any moneys of the Authority that may properly be deposited to the credit of said Fund, or the proceeds of any grants received from any source, to be used for the purpose of paying the Cost of Improvements.

PRASA has not included any deposits into the Construction Fund for the forecast period.

8.6.5 Surplus Fund and Rate Stabilization Account

After all the deposits required by the MAT (as amended) have been accordingly made, any remaining moneys shall be deposited to the credit of the Surplus Fund, which includes the Rate Stabilization Account. Per the 2025 PRASA Fiscal Plan, as of April 30, 2025, the Rate Stabilization Account balance was \$53M. As stated in the 2025 PRASA Fiscal Plan, the Rate Stabilization Account intends to minimize the need for rate adjustments to cover temporary needs. Accordingly, the FY2025 projections include a \$17.5M transfer from the Rate Stabilization Account, and the FY2026 Annual Budget includes a transfer from the Rate Stabilization Account of \$30M to cover payroll and maintenance costs and the forecasted increase in electricity in FY2026. Further transfers of \$18.0M in FY2027 and \$6.0M in FY2028 are planned from the Rate Stabilization Account. No further transfers are planned for the remainder of the forecast period.

8.7 Conclusions

PRASA's forecast (Exhibit 1) reflects the financial projections in the 2025 PRASA Fiscal Plan certified by the Oversight Board on May 30, 2025. With PRASA's projected additional revenues, cost savings, new federal funds, and proposed rate increases, the forecast reflects a total surplus of \$2.2M from FY2025 through FY2030.

Operating Revenues are projected to be sufficient to meet Senior Lien debt service payments and meet Rate Covenant DSC requirements for Senior Lien Debt. Authority Revenues are projected to be sufficient every year of the forecast period to meet All Obligations per the MAT. Therefore, PRASA is projecting to meet its Rate Covenant requirement of 1.0x coverage of its current obligations throughout the forecast period. In meeting these requirements, PRASA must consider its rates' overall sustainability and affordability, given the overall economic situation affecting Puerto Rico and recent trends affecting customer consumption profiles.

The following events could have material negative effects on PRASA's forecast, which may negatively impact PRASA's financial situation in the future:

- Lower revenues or savings achieved, or the timeliness of the 2025 PRASA Fiscal Plan initiatives.
- Lower funding than expected from FEMA proceeds and other projected federal funds.
- Higher energy costs because of higher consumption and/or higher PREPA/LUMA electric costs (per kWh).
- Higher than expected annual inflation rates.
- Higher than budgeted personnel costs related to salaries, benefits, and incentives to improve employee retention at PRASA.
- Higher construction costs due to the supply-demand situation of materials and equipment.
- Unforeseen natural disasters.
- Stagnant/decreasing population projections.

The probability of PRASA meeting its forecast is conditioned on the following:

1. **PRASA's continuing ability to maintain its Service Revenues, billings, and collections in a challenging economic environment:** Further decline in non-residential consumption, additional burden on the island's financial situation, and continuing population shifts could affect PRASA's billings and/or collections.
2. **PRASA's ability to successfully implement its Fiscal Plan initiatives:** PRASA's 2025 PRASA Fiscal Plan includes certain revenue-enhancing and cost-reduction initiatives. Any changes to the funding, framework, and execution of these initiatives would significantly alter PRASA's projected financial results. Therefore, although

PRASA has committed to implementing the initiatives described in this Report, there is a possibility that the projected results and, more specifically, the timing of those results may not be achieved.

3. **PRASA's ability to address operational needs while meeting its budgetary assumptions and goals:** PRASA's System continues to require increased maintenance and repairs, additional operations staff, and other operational investments for general System upkeep. As a result, the System's needs could exceed the levels assumed by PRASA in its forecast, thereby materially affecting operating expenses.

9 Conclusions

Based on our review, we offer the following statements and conclusions concerning PRASA's financial and operational conditions.

9.1 PRASA's Fiscal Situation

Puerto Rico's Government has grappled with notable economic and demographic hurdles in recent years, significantly affecting PRASA. Alongside the economic downturn in the region, PRASA, similar to other municipal water and wastewater utilities, confronts various pressing issues. These include challenges related to affordable service delivery, aging infrastructure, substantial NRW, compliance with regulatory mandates, susceptibility to climate change and natural disasters, declining population and water usage, workforce-related difficulties, and escalating requirements for capital investment and R&R.

Puerto Rico has endured adverse economic, infrastructural, and operational repercussions since 2017. However, PRASA's financial situation has shown signs of improvement, attributed to adopting diverse strategies. These encompass debt restructuring, measures to augment revenue, federal disaster recovery aid, and acquiring loans and grants from the SRF.

Based on the 2025 PRASA Fiscal Plan, PRASA has identified certain measures to continue progress in PRASA's long-term fiscal improvement and to ensure PRASA can continue to provide safe, reliable, and affordable water and wastewater services. Four broad categories of measures are incorporated in the Post-Measures Financial Results:

- Revenue Enhancement Measures, which target adequate cost recovery levels executed through future rate adjustments and improvements in billing accuracy.
- Expense Reduction Measures by reduction of PRASA's overall expenditures through operational optimization, mostly by reducing physical water losses and electricity costs.
- New Financing for CIP by securing additional federal funding to finance the CIP.
- Enabling Measures, which will enact measures to facilitate the successful implementation of the Fiscal Plan key measures and to provide for operational sustainability throughout the organization.

PRASA remains steadfast in its commitment to build upon prior achievements, especially in the system's condition, enhancing operational efficiencies and ensuring the timely and cost-effective execution of its CIP. These specific areas are anticipated to receive attention, utilizing anticipated federal funding inflows (combined with appropriate contributions from PRASA's internal resources). This funding is intended to cover the CIP necessities, fostering PRASA's objective to fortify its infrastructure and build more effective and resilient water and wastewater systems.

Chapter 2 of the FY2025 CER Report particularly addresses Puerto Rico's Oversight Management and Economic Stability Act and PRASA's Fiscal Plan, the federal debt modification, the senior debt refunding, rate adjustments, current energy management status, federal funds for disaster recovery and resilience, and funding status.

9.2 Organization and Management

In January 2022, PRASA completed a labor capacity and productivity assessment to determine the optimal staffing levels. The study identified the need (including amendments to incorporate updates on Customer Service and

Infrastructure Departments) for 5,000 employees. Based on the initiatives PRASA is currently implementing, the optimal headcount is expected to be lower than established in 2022 by approximately 300 employees. At the end of FY2025, PRASA had a total headcount of 4,289 employees. Ideally, PRASA will need to hire 411 additional employees to reach a headcount of 4,700 FTEs by FY2029. Below is a summary of PRASA's strategy to address the employee gap:

- Recruiting key technical and operating personnel, such as plant operators, electromechanics, and other workers for operations.
- Progressively recruiting personnel for positions left open as the pre-retired employees reach full retirement age.
- Filling headcount needs in the Infrastructure, Customer Service, and Compliance Departments, among others.

The organization continues to face considerable recruitment challenges across numerous operational, technical, and administrative positions. These shortages affect licensed operators, operator assistants, substitute operators, maintenance staff, TSOs, microbiologists, laboratory technicians, light equipment personnel, potable water technicians, various supervisors and managers, purification mechanics, and TAs. Other critical areas impacted include electromechanics, sludge dewatering operators, sanitary sewer technicians, housekeeping staff, preventive maintenance coordinators, pipefitters, EITs, and a range of support and specialist roles. This scarcity results in overtime work, delayed repairs, or inadequately staffed services, impacting operational efficiency.

Other sections covered under Chapter 3 of the FY2025 CER Report include updates in the board of directors, executive management team, staffing profile, labor relations, and training.

9.3 Condition of System Assets

Arcadis conducted asset condition assessments for various WTP and WWTP facilities and examined a sample of associated auxiliary facilities. Between March and July 2024, Arcadis undertook assessments across PRASA's five Regions, visiting 180 facilities. Among these, 48 were WTP and 24 WWTP facilities. The evaluation involved a thorough visual inspection encompassing equipment, facility conditions, process controls, and an appraisal of regulatory compliance performance, O&M practices, staffing, and training.

Each facility was inspected using an asset management application called Fulcrum. Fulcrum includes scoring and weighting criteria developed by Arcadis. The gathered data revealed that 37% of the facilities inspected in FY2025 were classified as in Good condition, while 56% were deemed Adequate. Within the facilities rated Adequate, 17% (164 out of 95) scored below 2.0. Left unaddressed, these facilities have the potential to experience continued deterioration, possibly leading to a downgrade to Poor or Unacceptable ratings in the future.

Seven percent of the facilities are in the Unacceptable to Poor range, which is an improvement of 3% when compared to FY2024. The major concern is the facilities' physical condition. However, PRASA expects to properly address several deficiencies highlighted by the projected inflow of federal funds to cover (with appropriate contributions from PRASA's internal funds) the System's needs. In addition to the physical condition, the Staffing and Training criterion impacts the overall condition of the facilities. This criterion was mostly affected by the ongoing personnel turnover and the need for certified operators, engineers, and other support staff for the treatment facilities.

PRASA's eight regulated dams were rated as Adequate to Poor condition. Ratings increased for all dams because of recently provided documentation and ongoing capital improvements. Three dams were rated as Poor, and five as Adequate. No dam received a combined rating of Good inspections. Improvements have been completed at Cidra Dam, and a major rehabilitation project of the dam and liner system at Isabela Regulator Dam was underway at the time of the 2025 inspection. According to PRASA, a major rehabilitation is scheduled to begin soon at the

Toa Vaca dam. However, many minor issues from past inspections were observed again during the FY2025 inspections. Most dams showed deterioration, with notable maintenance issues like vegetation control problems hindering inspections and affecting operational mechanisms. Inadequate maintenance, inaccessible inspection areas, and insufficient monitoring of dam safety instrumentation were common issues across the dams, highlighting the urgent need for systematic maintenance, accessible areas for inspection, operational instrumentation, and comprehensive surveillance and monitoring plans. Furthermore, the lack of comprehensive surveillance and monitoring plans, as well as incomplete documentation and design records, poses significant risks to dam safety.

Overall, the WTPs inspected are mostly in Adequate condition, with a 2.2 rating. To the extent that the physical structures and operational and process controls are maintained or improved, they are expected to continue to serve their intended purpose of providing a potable water supply in compliance with applicable regulations. Compared to the FY2024 inspection results, a slight decrease of 0.1 in the scoring for the Equipment and Maintenance and Staffing and Training criteria was observed. The Regulatory Compliance and Operations and Process Control criteria remained unchanged for FY2025. The Equipment and Maintenance criteria rating scores have remained fairly constant over the past years; this can be attributed to the same equipment being out of service or deteriorating, as previously reported.

The WWTPs generally range from Poor to Adequate conditions in the overall rating. Out of the 24 facilities inspected, eight facilities (33%) received a Poor overall rating, and 16 facilities (67%) received an Adequate rating. Compared to the FY2024 inspection results, Regulatory Compliance scores decreased by 0.5. The Operations & Process Control remained constant, and Equipment and Maintenance, and Staffing & Training scores decreased by 0.1. The facilities' physical condition is the main concern. Process Control is also challenging in some facilities, even though plant operators indicated that SOPs and control strategies are followed.

Regarding ancillary facilities, the facility criteria ratings of wells, WPS, WST, and WWPSs improved, elevating most facilities to the Good range. As long as the physical structures, operational controls, and process controls are maintained or improved through CIP initiatives, the facilities are expected to continue to serve their intended purpose.

The 2025 PRASA Fiscal Plan WRO's main initiatives are pressure management and optimization, water leak reduction (reported and unreported), WST overflow avoidance, and data quality improvement (reduce estimation), which shall help reduce physical water losses.

9.4 Operation & Maintenance Practices and Strategic Plan

Noncompliance with treatment parameters occurred at several facilities (WTPs and WWTPs) due to factors such as missing or outdated versions of O&M and equipment manuals, critical components being out of service, inadequately labeled or color-coded pipes, infrequent jar tests, and poor condition of security fences, access roads, and lighting. Additional issues included insufficient security and NPW systems, as well as challenges with ground upkeep. Other challenges observed at various facilities included a lack of EGUs to maintain operations, the absence of potable water flow meters, inadequate overall appearance, insufficient safety measures, inconsistent process control of residual chlorine levels, and poor equipment maintenance.

PRASA's FY2025 O&M expenses preliminary projection for the water and wastewater systems (combined) were approximately \$832.0M (as of June 2025), of which \$758.3M (91%) are directly related to the System's O&M. The remaining \$73.6M are related to commercial activities and provision of customer service. In FY2025, chemical-related expenses were one of the largest operating expenditures at nearly \$78M. PRASA's efforts to reduce overall chemical costs include non-capital initiatives such as procurement strategies and better handling of chemical usage.

PRASA's latest Strategic Plan is for the FY2021-2025 period. As of FY2025, a draft of the new Strategic Plan for FY2026-2031 is in the final approval stage and will outline a renewed vision and strategy for the next cycle. The new PMO leader will oversee the management and execution of this plan. In parallel, PRASA is redesigning its KPI tracking methodology in Power BI to align with updated strategic goals. KPI results for FY2025 were unavailable, so a year-to-year comparison could not be included in this report.

Chapter 5 of the FY2025 CER Report addresses in more detail the following topics: department updates, strategic and corporate planning, regional updates, and ongoing programs and initiatives developed by PRASA.

9.5 Non-Revenue Water Reduction Program

Reducing NRW is a high-priority initiative for PRASA, as it will have both revenue enhancement and expense reduction impacts on finances. Therefore, PRASA has invested in different departments within PRASA to implement this initiative. The two main programs are Metering Optimization and the WRO.

To reduce commercial water losses and improve customer experience, PRASA has outlined three initiatives under the Customer Service Department. The initiatives include Efficiency and Customer Service Optimization, Commercial Water Loss Reduction, and AMI.

The WRO focuses on recovering physical losses throughout the water distribution system. In pursuing the vision of achieving long-term sustainability, PRASA included the reduction of NRW as one of the focus areas of the 2025 PRASA Fiscal Plan and has established three main programs for reducing physical losses to achieve a reduction of 51.66 MGD by FY2039. These programs are:

- Master Meters: Accurately measure water production by installing water meters at critical facilities.
- Pressure Management: Incorporating pressure management best practices across the transmission and distribution network.
- Leak Detection and Reduction: Improving identification, prioritization, and resolution of major leaks across PRASA assets.

PRASA will continue with the NRW Reduction Program and enter into a contract with the proponents who will participate in the pilot phase of the AMI project. Concurrently with the pilot phase, PRASA plans to have a separate bid for the installation of both the water meters and AMI infrastructure islandwide. It is expected that by January 2025, the installation contracts will be in place.

PRASA entered into a contract with two proponents who participated in the pilot phase of the AMI project. After evaluating the results of the pilot projects, PRASA awarded the contract to one proponent, which led to a Master Contract for the provision of water meters and AMI technology islandwide. Concurrently with the pilot phase, PRASA issued an RFP for the installation of both the water meters and AMI infrastructure islandwide. It is expected that installation contracts will be in place by June 2026, with full deployment commencing in July 2026. Accurate meter readings will enable more precise identification of unauthorized water consumption, while remote readings will enhance customer service efficiency.

The 2025 PRASA Fiscal Plan reported the following improvement in the system in the last five years with regard to the NRW program:

- Annual production of water decreased by 28.5 MGD or 5%.
- NRW decreased by 28.5 MGD or 5%.
- Water losses were reduced by 19 MGD or 6%.

- Physical losses decreased by 35 MGD or 12%.

9.6 Capital Improvement Program and Regulatory Compliance

PRASA has engaged the services of four PMCs to support its Infrastructure Department in the planning, design, permitting, procurement, construction, and management of the CIP projects in each of the five Regions. As of March 31, 2025, PRASA had 291 active projects in the CIP at different stages for a total investment of \$8,208M.

PRASA's CIP for FY2025 through FY2039, as included in the 2025 PRASA Fiscal Plan, amounts to \$11.7B. The Reconstruction & Recovery, totaling 42% of the total CIP, is \$4,931M and is the largest category in terms of dollars throughout this CIP period. Mitigation and Resiliency projects are the second largest expense, with an annual average expenditure of \$219.9M and a total of \$3,298.6M. R&R is now the third largest expense, with an annual average expenditure of \$76.6M and \$1,148.2M over the 15-year period.

The total of \$11.2B of identified projects under CIP, approved by the PRASA Governing Board on February 27, 2025, along with additional funds for R&R projects, includes \$572M for meter replacement and other infrastructure needs.

PRASA continues to work on the requirements of the Consent Decree with USEPA and the Drinking Water Settlement Agreement with PRDOH. In addition, it continues to consider the proposed modifications to said Consent Decree and Drinking Water Settlement Agreement between PRASA and regulatory agencies in its CIP.

While PRASA has begun to identify the potential impact of new regulations, the full impact of future regulations and other regulatory requirements on PRASA's System is unknown. In some cases, future regulations and additional regulatory requirements are expected to require minor process changes, and, in other cases, major capital improvements, such as the construction of new treatment processes and intensive repair programs. PRASA is vigilant of potential future regulations, such as the Lead and Copper Compliance Rule and the PFAS groups, that may impact the System and compliance requirements. Also, PRASA has experienced additional compliance challenges regarding NPDES permit limit requirements for WWTPs and STS discharges at the WTPs. Over the past years, the NPDES permit limits became more stringent for certain parameters such as total nitrogen, total phosphorus, and residual chlorine, among others.

PRASA expects to address the deficiencies with the projected inflow of federal funds to cover (with appropriate contributions from PRASA's internal funds) its System needs in addition to the funds available due to the debt restructuring initiative.

9.7 Insurance Program

PRASA's insurance program, including risk management, policies, and the OCIP, was reviewed to determine if it is appropriate for the System. Several key recommendations for PRASA's insurance program are provided below, and recommended that they be implemented promptly.

1. The comprehensive review conducted by MARSH highlights the critical need for PRASA to regularly assess its insurance program to ensure coverage remains adequate and aligned with the changing value and nature of its assets. MARSH's detailed evaluation covered multiple policies and provided targeted recommendations across PRASA's insurance portfolio, identifying several key areas essential for effective risk management and financial protection.

2. Property insurance requires particular focus due to PRASA's substantial asset base, relatively high premiums, significant deductibles, and stop loss limits that are low compared to the total asset values. PRASA's Commercial Property Program covers nearly \$12.9B in assets, but its effectiveness is limited by a very high deductible of \$100M, which places considerable financial responsibility on PRASA before insurance coverage applies. In the event of a major loss, the maximum insurance recovery may cover only a small fraction of the total insured value, underscoring the urgent need to reassess coverage limits relative to PRASA's asset exposure.
3. A critical concern is the exclusion of Excavations coverage, which is especially significant given that nearly 49% of PRASA's TTV is tied to buried infrastructure such as underground pipelines. Excavation costs often represent a substantial portion of the total construction cost for these assets, which are highly vulnerable to catastrophic events like earthquakes. Excluding excavation coverage could prevent PRASA from recovering sufficient funds to repair or replace damaged infrastructure. If insurers maintain these exclusions, it is essential to adjust insurable limits downward accordingly to avoid paying premiums for coverage that cannot be claimed.
4. To address these challenges, PRASA must reconcile and update its asset valuations, conduct a thorough claims analysis to evaluate loss experience in relation to the high deductible, and consider removing lower-risk properties from coverage to optimize insurance costs. A current asset appraisal is imperative to reflect the value of PRASA's fixed assets accurately. Additionally, conducting a comprehensive PML study using updated asset values is crucial to quantify potential losses from catastrophic events such as earthquakes and floods, and to determine whether existing insurance limits provide sufficient protection.
5. PRASA should prioritize these assessments and policy adjustments to ensure its insurance program offers adequate financial protection and aligns with best risk management practices, reflecting PRASA's evolving risk profile and operational needs.
6. Regarding cyber liability insurance, PRASA's current policy offers a basic level of protection but includes several exclusions and limited terms that may leave the Authority vulnerable to significant cyber and physical risks. MARSH recommends renegotiating and enhancing the policy to better reflect industry best practices and PRASA's unique exposure. This includes adding critical coverages for breach costs, terrorism-related cyber-attacks, and emerging threats such as active assailant incidents. Implementing these improvements will strengthen PRASA's resilience against cyber incidents and physical attacks, providing more robust financial protection and supporting operational continuity in an increasingly complex risk environment.

PRASA should implement these recommendations to expand coverage and transfer additional risks through its insurance program. To the extent that PRASA adopts these recommendations, premium costs may increase, and these additional costs should be considered in future financial forecasts.

9.8 Financial Analysis

PRASA's forecast reflects the financial projections included in the 2025 PRASA Fiscal Plan certified by the Oversight Board on May 30, 2025. With PRASA's projected additional revenues, cost savings, new federal funds, and proposed rate increases, the forecast reflects a total surplus of \$2.2M from FY2025 through FY2030.

Operating Revenues are projected to be sufficient to meet Senior Lien debt service payments and meet Rate Covenant DSC requirements for Senior Lien Debt. Authority Revenues are projected to be sufficient in every year of the forecast period to meet All Obligations per the MAT. Therefore, PRASA is projecting to meet its Rate Covenant requirement of 1.0x coverage of its current obligations throughout the forecast period.

The probability of PRASA meeting its forecast is conditioned on the following:

- PRASA's sustained capacity to uphold its Service Revenues, billing, and collection processes faces challenges in the current economic climate. Persistent decreases in non-residential consumption, additional burden on the island's financial situation, and ongoing population shifts could affect PRASA's billing and/or collection operations.
- PRASA's successful execution of its Fiscal Plan initiatives is contingent upon certain revenue-boosting and cost-cutting measures outlined in its 2025 plan. Any alterations to these initiatives' funding, structure, or implementation would markedly impact PRASA's anticipated financial outcomes. While PRASA has pledged to implement several initiatives detailed in this report, there remains a possibility that the projected outcomes, particularly their timing, might not be attained.
- PRASA's capability to fulfill operational requirements within its budgetary assumptions and objectives is crucial. The system continues to require increased maintenance, repairs, an expanded operations workforce, and other investments for its overall maintenance. Consequently, should the system's needs surpass the levels anticipated by PRASA in its projections, expenses could be substantially impacted.

Arcadis has relied on certain assumptions and information provided by PRASA regarding the conditions that may exist or future events to develop the conclusions included in this section. Arcadis believes the information and assumptions are reasonable, but has not independently verified the information provided by PRASA and others. Therefore, to the extent that actual future conditions differ from those assumed in this report, the actual results will vary from those forecasts.

Arcadis has not determined the validity and enforceability of any contracts, agreements, existing laws, rules, or regulations applicable to PRASA and its operations. For this report, Arcadis has assumed that all such contracts, agreements, laws, rules, and regulations will be fully enforceable following their terms.

Exhibit 1

Financial Forecast FY2025-2030

PRASA FINANCIAL FORECAST PRO FORMA ^a (\$, Thousands)		FY2025 PRELIMINARY ^b	FY2026 ANNUAL BUDGET	FY2027 PROJECTION	FY2028 PROJECTION	FY2029 PROJECTION	FY2030 PROJECTION
OPERATING REVENUES							
1.	Service Revenues (Base Fee and Service Charges, Net o	\$1,155,369	\$1,155,698	\$1,156,561	\$1,156,629	\$1,155,899	\$1,154,291
2.	Transfer from / (to) Rate Stabilization Account	17,500	30,000	18,000	6,000	-	-
3.	Other Income (Miscellaneous/Special Assessments)	4,500	4,500	4,500	4,500	4,500	4,500
4.	Fiscal Plan - Revenue Enhancing Initiatives ^d	-	23,492	59,782	103,766	149,430	196,387
5.	Total Operating Revenues [Sum Lines 1-4]	\$1,177,369	\$1,213,690	\$1,238,844	\$1,270,895	\$1,309,829	\$1,355,177
ADDITIONAL REVENUES							
6.	Transfer from Budgetary Reserve Fund	0	0	0	0	0	0
7.	General Fund Grants/Appropriations/Contributions	0	0	0	0	0	0
8.	Reimbursements to the Authority Revenues	0	0	0	0	0	0
9.	Total Other Sources of Revenue [Sum Lines 7-9]	\$0	\$0	\$0	\$0	\$0	\$0
10.	Total Authority Revenues [Line 5 + Line 9]	\$1,177,369	\$1,213,690	\$1,238,844	\$1,270,895	\$1,309,829	\$1,355,177
OPERATING EXPENSES							
11.	Payroll and Benefits	\$329,150	\$342,086	344,486	348,607	359,797	369,991
12.	Electric Power	\$173,992	\$191,693	205,995	203,958	205,735	208,317
13.	Maintenance and Repair	\$92,355	\$93,172	94,693	96,294	97,961	99,654
14.	Chemicals	\$78,123	\$77,898	79,169	80,508	81,902	83,317
15.	Insurance	\$28,404	\$27,968	28,424	28,905	29,405	29,913
16.	Other Expenses	\$199,530	\$199,729	202,989	206,421	209,994	213,623
17.	Fiscal Plan - Cost Saving Initiatives ^e	\$0	\$2,376	3,850	(292)	(1,566)	(12,525)
18.	Capitalized Operating Expenses	(24,147)	(25,109)	(25,909)	(26,039)	(26,547)	(26,792)
19.	Total Operating Expenses [Sum Lines 11-18]	\$877,407	\$909,812	\$933,697	\$938,362	\$956,681	\$965,497
EXPENSE REIMBUREMENTS							
20.	Expected FEMA Reimbursements ^f	(7,236)	(4,950)	0	0	0	0
21.	Total Additional Expenses [Line 20]	-\$7,236	(\$4,950)	\$0	\$0	\$0	\$0
22.	Total Operating Expenses [Line 19 + Line 21]	\$870,171	\$904,862	\$933,697	\$938,362	\$956,681	\$965,497
DEPOSITS							
23.	Deposit to the Senior Debt Fund	\$245,745	\$255,653	\$260,973	\$267,805	\$273,794	\$302,259
24.	Deposit to the Senior Debt Service Reserve Fund	0	0	0	0	0	0
25.	Deposit to the Senior Subordinate Bond Fund	0	0	0	0	0	0
26.	Deposit to the Senior Subordinate Debt Service Reserve Fund	0	0	0	0	0	0
27.	Deposit to the Subordinate Bond Fund	0	0	0	0	0	0
28.	Deposit to the Subordinate Debt Service Reserve Fund	0	0	0	0	0	0
29.	Deposit to the Current Expense Fund	0	0	0	0	0	0
30.	Deposit to the Operating Reserve Fund	8,519	0	0	0	0	0
31.	Deposit to the Capital Improvement Fund (Net of Projected New Federal Funds and FEMA Reimbursement)	52,790	52,726	43,766	64,323	78,954	87,071
32.	Deposit to the Construction Fund	0	0	0	0	0	0
33.	Deposit to the Commonwealth Payments Fund	0	0	0	0	0	0
34.	Deposit to the Surplus Fund	0	0	0	0	0	0
	Deposit to the Rate Stabilization Account	0	0	0	0	0	0
35.	Total Deposits, excluding existing deposits available in the Current Expense Fund [Sum Lines 23-28 and 30-34]	\$307,055	\$308,379	\$304,739	\$332,128	\$352,748	\$389,330
36.	Net Authority Revenues After Obligations and Deposits [Line10-Line 22-Line 35-Line 30]	\$143	\$448	\$408	\$404	\$400	\$350
DEBT SERVICE PAYMENTS DUE							
37.	Senior (S) ^g	\$245,745	\$255,653	\$260,973	\$267,805	\$273,794	\$302,259
38.	DS Coverage Required = 2.50	4.79	4.75	4.75	4.75	4.78	4.48
39.	Senior Subordinated (SSUB)	0	0	0	0	0	0
40.	DS Coverage Required = 2.00	4.79	4.75	4.75	4.75	4.78	4.48
41.	Subordinated (SUB)	0	0	0	0	0	0
42.	DS Coverage Required = 1.50	4.79	4.75	4.75	4.75	4.78	4.48
43.	Commonwealth Guranteed Indebtedness (CGI)	0	0	0	0	0	0
44.	Commonwealth Supported Obligations (CSO)	0	0	0	0	0	0
45.	Debt Not Covered Under the MAT	0	0	0	0	0	0
46.	Total Debt Service Including Debt Not Covered Under the MAT, Net of Existing Deposits	\$245,745	\$255,653	\$260,973	\$267,805	\$273,794	\$302,259
47.	DS Coverage on All Obligations (Coverage Require	1.0001	1.0004	1.0003	1.0003	1.0003	1.0003

^a Numbers may not add up due to rounding.

^b Based on projected results as presented in PRASA's June 27, 2025 Fiscal Plan.

^c Includes additional revenues from implemented rate increases FY 2018-2025.

^d Projected additional revenues from initiatives included in 2025 PRASA Fiscal Plan.

^e Projected operating and capital expense reductions from initiatives included in Fiscal Plan. Excludes New Financing for CIP initiative (netted from line 31).

^f FEMA funding reimbursement of operating expenses. FEMA funds shall be deposited to the credit of the Current Expense Fund as they are used to reimburse PRASA for Current Expenses.

^g Includes expected future debt service for SRF and RD loans.

Appendix A

Ongoing and Future Initiatives and Projects by Operational Region

Ongoing and Future Initiatives and Projects by Operational Region

Region	Initiatives and Projects	Description
West	Compliance	Operation KPIs: • The overall KPIs for drinking water and wastewater are at 100% and 98.3% completion, respectively. • The operational weighted average overall metric reached 96.4% during FY2025. WTPs: • In FY2025, three systems (Las Marías, Sabana Grande, and Cabo Rojo) experienced non-compliance with DBP limits for the TTHM parameter. • The Isabela Urbano and Cabo Rojo systems failed to meet bacteriological standards during FY2025. • Maginas and Guajataca WTPs recorded exceedances in several parameters, including, but not limited to, BOD and phosphorus. Miradero WTP reported lead exceedances; Añasco WTP reported phosphorus exceedances; and Isabela WTP reported BOD exceedances. • Since the installation of chlorine meters in wells in FY2024, a continued reduction in chlorine application has been observed. • STS equipment deficiencies and ongoing challenges with sludge management continue to have an impact; these issues will be addressed through upcoming CIP projects. • Each operational area maintains a sufficient inventory of spare parts on site, as established in previous fiscal years. To ensure uninterrupted operation, the availability of critical parts and equipment should be verified at least once per year. • Due to staffing shortages, equipment repairs are carried out by subcontractors. WWTPs: • For Mayagüez and Aguada WWTPs, there were no violations of Enterococcus parameters in FY2025. • Aguada-Aguadilla WWTP no longer faces challenges related to sludge management, as it is currently operating with a centrifuge; however, the filter press remains out of service. • Maricao WWTP experienced challenges with BOD, phosphorus, and TSS exceedances during FY2025, while other facilities reported intermittent exceedances. • At San Sebastián Nueva WWTP, issues related to TSS concentrations have been resolved, and most of the equipment is currently operational.

Region	Initiatives and Projects	Description
	Non-Revenue Water (NRW)	• The non-revenue water (NRW) goal was to limit losses to 63.44 MG. However, this target was not achieved due to challenges in the Aguadilla Operational Area, particularly at the Culebrinas intake. • The main objectives are to maintain 100%-meter readings at all WTPs and to install surge-anticipating control valves to reduce water losses further. • Any issues related to brigades and pressure regulators are reported to the subcontractor (CSA Group), who is also responsible for calculating water losses whenever a leak or pipe rupture occurs. • An annual contract with a subcontractor (Esteban Fuentes) for technical support is currently awaiting approval. This contract has been highly successful in previous years, and the initiative will continue once approved. • Weekly NRW committee meetings are held to review reports and establish prioritization plans to address issues such as high-pressure zones and leaks. • Several areas for improvement related to NRW have been identified, including: – Enhancing water loss measurement processes – Improving the identification of pressure zones – Strengthening the collection and monitoring of field data from pressure regulators • Aguadilla WTP continues to transfer water to Rincón, and any leaks associated with these activities are currently under control.
	Energy Consumption Reduction	• An investigation was conducted at Guayabos Cruces II in Aguada to identify necessary operational adjustments, including reducing pump capacity by 50%. A power generator was installed to address voltage issues, and one pump motor is pending repair or replacement. • At Mayagüez WWTP, intelligent blowers will be installed to ensure efficient management of blower run times. Additionally, other blower replacement projects are under consideration by the Infrastructure Department.
	Operations Optimization	• To reduce and optimize chemical dosing, eleven SOPs for WTPs are being developed in collaboration with the Compliance Department. A pilot project is underway at Lajas WTP to assess chemical management practices using a newly created SOP. As part of the optimization program, efforts are also focused on improving bisulfite control and measurement in WTPs. • As part of the island-wide chemical optimization program, level sensors have been installed at the following WTPs: Betances, Maginas, Sabana Grande, and Aguadilla. • Mass flow meters for primary polymers have been installed at six WTPs (Betances, Lajas, Maginas, Isabela, San Sebastián, and Aguadilla) and at three WWTPs (Lajas, San Germán, and Aguada) to enhance chemical dosing accuracy and efficiency. • In FY2025, no challenges were encountered related to the STS system and residual chlorine management.
	Automation Programs & Digital Technologies	• Mobile data terminals (MDTs) continue to be utilized as required by PRASA. The Mayagüez and San Germán Operational Areas are fully operating with MDTs, while the Aguadilla Operational Area is operating at 73% capacity. Overall, 90% of MDTs are in use.

Region	Initiatives and Projects	Description
	Financial	- Funding was allocated to support capitalizable projects, totaling \$6M. These funds were distributed among preventive maintenance, emergency projects, and daily operations, with approximately 75% dedicated to preventive maintenance activities and 25% to emergencies and capital equipment. New equipment was purchased to support daily operations, as delays in repair orders impacted the original budget. Additionally, new initiatives and projects continue to be affected by limited funds. - Financial constraints have also impacted the progress of repair and replacement projects.
	Fleet	- During FY2025, new vehicles were acquired, bringing the total available fleet to 20 units, distributed as follows: - Aguadilla Operational Area: three double-cab pickups, three dump trucks (8 yards), and one white platform truck, for a total of seven vehicles. - Mayagüez Operational Area: five double-cab pickups, one dump truck (8 yards), and one white platform truck, for a total of seven vehicles. - San Germán Operational Area: three double-cab pickups, one dump truck (8 yards), one white platform truck, and one large flushing truck, for a total of six vehicles. - The preventive maintenance crane was repaired, and three diggers remain under rental agreements. - Private companies are contracted to provide maintenance support; however, delays in the contracting process have reduced the number of vehicles available for operations. Furthermore, additional flushing trucks are needed to support daily activities.
	Staff	- The current headcount is 688 employees. - Vacancies are available for operators, electromechanics, maintenance managers and assistants, as well as sewer system and operational workers in the Aguadilla Operational Area. - Due to understaffing, extra hours are being offered to operations employees. - The recruitment process for Pictometry positions was completed in FY2026, ensuring that all operational areas now have the required personnel. However, recruitment remains a significant challenge.
	Projects	- Currently, a rehabilitation project aimed at doubling production is underway at Culebrinas WPS, while the Calero WPS project is in the design phase, and the acquisition of new equipment for Aguadilla (Montaña) WTP is ongoing. - In collaboration with the Infrastructure Department, optimization projects will also begin in FY2026, focused on pipe renovations and the continued measurement of water leaks. - Refer to Appendix B for capital improvement projects.

Region	Initiatives and Projects	Description
Metro	Compliance	Operation KPIs: • In FY2025, actual meter readings accounted for 80% of measurements, while estimated readings made up the remaining 20%. • Drinking water and wastewater compliance KPIs were achieved at rates of 99.4% and 97.7%, respectively. • The solids treatment system (STS) achieved a compliance rate of 97.1%. • The operational weighted average overall metric reached 67.3% during FY2025. Regulatory Compliance and Operational Performance: • Operational adjustments are implemented at all WTPs, including distribution tank oscillation, system drainage, thorough cleaning of the distribution tanks, and continuous monitoring of THM concentrations. • Sodium permanganate is applied at the Carraízo Dam intake, as needed, to improve water quality and reduce hydrogen sulfide levels. • The pilot program to evaluate the use of herbicides was discontinued as of FY2024. A plant harvesting machine is now contracted to remove invasive plants from the Carraízo Lake Basin as needed. • The Carraízo Lake Basin ecosystem conservation program remains on hold following the retirement of Nancy Caseres. • Exceedances in residual chlorine levels were reported at Bayamón WWTP, Carolina WWTP, Puerto Nuevo WWTP, Cubuy WTP, and Guaynabo WTP. Additionally, sporadic exceedances were observed in parameters such as BOD, copper (Cu), ammonium (NH₄), ammonia (NH₃), Enterococcus, residual chlorine, pH, total suspended solids (TSS), zinc (Zn), free cyanide (CN-free), temperature (T), phosphorus (P), lead (Pb), and turbidity. • All operational areas experienced overflows during FY2025, with the highest number of incidents reported at Villas del Mar, Miñi Miñi, and Candelarias Arenas WPSs.

Region	Initiatives and Projects	Description
	NRW	• The NRW committee holds weekly meetings to review the progress of ongoing initiatives. • Water losses are reported to the NRW office for proper tracking and accounting. • NRW continues to be estimated, as meters are either not installed or out of service at several facilities. • Water transfers remain for the following areas: – Tapping 16 in: Río Lajas Community – Tapping 16 in: Contorno Winche Lomas (supplying Bayamón and Naranjito) – Tapping 16 in: Barrio Ortíz – Tapping 12 in: towards Toa Alta Heights – Tapping 12 in: towards Monte Verde – Tapping 12 in: towards Providencia – Tapping 10 in: Estancias de la Fuente – Tapping 4 in: Bucarones, Toa Alta – Tapping 4 in: Reguladora Policía, Trujillo Alto – Tapping 4 in: Santa Rita, Gurabo – Tapping 4 in: Cubuy – Tapping 4 in: Guzmán Arriba – Tapping 4 in: Barrio Nuevo (supplying “La Prieta”, Comerío) • To better account for water losses during transfers, the region plans to install flow meters; however, this initiative was not achieved in FY2025. Currently, flow meters are installed at Guaynabo, Sergio Cuevas, and the Superaqueduct WTPs. • Several initiatives have been implemented to measure and control water losses, including: – Drainage measurement. – Pressure management through sectorizing, detection of high-pressure zones, and valve identification. – Monitoring overflows in WSTs via telemetry. – Prevention and control of water leaks, with a particular focus on the San Juan area.
	Operations Optimization	• The ROC remains operational for visualizing WTPs and the water network; however, no operational changes can be made through the system. • Two 42-inch valves have been installed in Guaynabo to control WPSs. • To optimize operations, several initiatives have been implemented: – Periodic inspection of all WSTs to ensure optimal condition. If leaks are detected, water losses are calculated, and repairs are performed by operations personnel. – Regular inspection of pump packings, with repairs carried out as needed.
	Pipe Ruptures	• Refer to Appendix G for drinking water pipe ruptures. • Refer to Appendix H for sanitary pipe ruptures.
	Mobile Data Terminals (MDTs)	• MDTs remain in use, and personnel are being trained to complete Form AAA-500-C (<i>Hoja de Inspección Visual para Generadores de Emergencia</i>) on mobile devices starting in November 2025. Additional devices need to be purchased to support the continuation of this initiative. It should be noted that this initiative does not include WTPs or WWTPs.
	Financial	• Funding of \$6M was allocated for capitalizable projects.

Region	Initiatives and Projects	Description
	Fleet	• An island-wide contract is currently active for vehicle procurement. • Several factors continue to affect fleet availability, including aging vehicles, lengthy repair times, and delays in purchase approvals. Fleet availability directly impacts the performance of both the Operations and Finance departments. • The total available fleet is 635 vehicles, which includes 72 rented vehicles. In FY2025, 12 vehicles were received and distributed as follows: – Bayamón Operational Area: the PRASA fleet consists of 166 vehicles, and the rented fleet has 25 vehicles, for a total of 191 vehicles. Two pickups were received. – Carolina Operational Area: the PRASA fleet consists of 128 vehicles, and the rented fleet has 20 vehicles, for a total of 148 vehicles. Three vehicles were received, including both flushing and pickup. – Guaynabo Operational Area: the PRASA fleet consists of 123 vehicles, with no rented fleet, for a total of 123 vehicles. Three pickups were received. – San Juan Operational Area: the PRASA fleet consists of 146 vehicles, and the rented fleet includes 27 vehicles, for a total of 173 vehicles. Four laboratory pickups were received. • The workshops assigned to the region are as follows: Super Automotive Products, Gulf Sabana Llana, Mfleet Service / Velez Maiz, Bramar Auto, Pep Boys, Victory Transmission, Jorge Rodríguez, Guevarez & Guevarez, Mecánica Benitez, Gascom & Guaynabo Auto Sound, Caribbean Auto Truck, Corozal Auto, Multiventas, and Grúas Andino.
	Staff	• Private operators have been contracted for Canóvanas WTP and Puerto Nuevo WWTP. • The recruitment process is very challenging. • The number of open positions in the region has risen to 140, reflecting significant increases in vacancies for operators, assistant operator, light equipment operator, secretaries, electromechanics, TSOs, system checkers, operators' supervisor, TAs, ROC supervisor, electromechanics assistants, service coordinator, auxiliary director maintenance, maintenance managers, maintenance supervisors, electronic technician (communications), heavy equipment operators, instrumentation technicians, instrumentation/telemetry manager, pipefitters, pipefitters assistants, complaints coordinators, street and sidewalk supervisors, brigade supervisors, managerial services officers, clerk / administrative assistants, heavy vehicle supervisor, janitor, warehouse guard, large-scale flushing supervisor, mini-flushing supervisor, and network operations manager.
	Projects and FY2025 Initiatives	• The most important projects in the region include: – Finca Rosso I WWPS in Guaynabo. – Cleaning at Villa Carolina WWPS. – Cleaning Tokio WWPS in Hato Rey. – Improvements to La Plata Dam, including the installation of generators. – Improvements to Enrique Ortega WTP (currently under construction). – Rehabilitation of the Sergio Cuevas WTP. – Improvements to Guaynabo (Los Filtros) WTP. – Rehabilitation and replacement of 330 linear feet of 30" diameter sanitary trunk sewer line. – Repair of 36" diameter drinking water line. • Refer to Appendix C for the capital improvement projects.

Region	Initiatives and Projects	Description
North	Compliance	Operation KPIs: • In FY2025, actual meter readings accounted for 85.76% of measurements, while estimated readings made up the remaining 14.24%. • Drinking water and wastewater compliance KPIs reached 100% and 96.5%, respectively. • The operational weighted average overall metric reached 32% during FY2025. The Operational Area of Arecibo and the sub-area of Vega Baja faced the greatest challenges. • By engaging private companies for preventive and corrective maintenance, as well as telemetry and instrumentation services, approximately 88% of redundancy was achieved in operation. WTPs: • In the Corozal Urbano WTP, improvements in DBP concentrations have been observed following coordination with the Metro Region to ensure adequate chemical dosage at the Enrique Ortega WTP. • The Jayuya WTP achieved compliance with DBP limits after implementing tank adjustments, reducing chemical dosages, and conducting thorough cleaning of the sedimentation tanks by a private company. However, sporadic exceedances of DBP limits were reported in the Manatí East System.
	NRW	• The goal is to limit water losses to less than 95 MG, considering water transfers. In FY2025, measured water losses were approximately 97 MG; therefore, the target was not met. • Pressure reduction remains a key initiative to decrease NRW, with the objective of maintaining system pressures between 25 and 60 psi. • A project aimed at mitigating water losses and optimizing operations is currently underway in Toa Alta. • Additionally, several wells in the Operational Area of Manatí are either currently on stand-by or will be reserved for emergency purposes. This initiative will be expanded to the Operational Areas of Arecibo and Utuado to reduce operational shifts and maintain reserve capacity. • The Boquilla, Nevárez, and Cruz Rosa wells are on stand-by; however, the Rábanos well is once again experiencing salt intrusion. Currently, the Santa Rosa well is being used to supply water to tank trucks, while the Nevárez well is used more frequently to support the Santa Rosa well. To support the Superaqueduct, the Vega Baja 3 well is also on stand-by.

Region	Initiatives and Projects	Description
	Energy Consumption Reduction	• The most significant challenge remains the unreliable electrical infrastructure in Puerto Rico. The municipalities most affected by power outages are Quebradillas, Camuy, Lares, Hatillo, Barceloneta, Vega Baja, Vega Alta, and Corozal. • While generators are available at several facilities, maintaining continuous service at critical locations has required renting additional units. Excessive use has led to generator failures, increasing reliance on rented equipment while repairs or replacements are made. • Alternative power sources, such as sludge reuse and solar energy, are being considered to improve energy resilience. • The Nevárez well operates with timers to optimize energy consumption and water distribution during atypical events. • New blowers have been installed at the Morovis and Vega Alta WWTPs. Timers are also being installed where necessary to ensure energy efficiency. • The Quebradillas WTP is scheduled for a project to optimize equipment utilization and water extraction management, while Almirante Sur WTP implements nighttime equipment shutdowns. After evaluating Cordillera WTP, it was determined that no further project is needed for these purposes.
	Optimization Initiatives	• Weekly meetings are held to review progress in compliance, preventive maintenance, financial management, and operational KPIs. • Several initiatives have been implemented to optimize operations, including installing telemetry systems for visualization, sectorization, identification, and control of pressure zones, and tank oscillation. • Telemetry panels were installed at Dominguito WPS in Arecibo and at Achioté I WPS in Naranjito, with a regional objective of installing three to five panels per year. • The focus is on delivering superior water quality by utilizing the best available chemicals and treatment methods. Accordingly, efforts are underway to transition from gas chlorine to liquid chlorine as part of chemical optimization initiatives.
	Pipe Ruptures	• The initiative to repair <i>Fideillos</i> and address line breaks has been completed; however, additional requests are expected to be managed in FY2026. • System-wide ruptures have been reduced through sectorization initiatives that consider pressure, capacity, and water demand. • Refer to Appendix I for drinking water pipe ruptures. • Refer to Appendix J for sanitary pipe ruptures.
	Financial	• Funding of \$6M was allocated for capitalizable projects, with 85% of these funds designated for preventive maintenance and 15% for emergencies. • Ongoing budget limitations continue to affect repair and replacement projects. Equipment repairs are progressing slowly, requiring additional investments in new equipment to maintain continuous operations. • Additionally, the sustained use of tanker trucks has led to increased fuel expenses. • The alternate power sources initiative requires financial support, as alternative energy sources cost more than \$1M.

Region	Initiatives and Projects	Description
	Fleet	• A new fleet was received in FY2025; however, overall availability continues to be affected by deterioration, vehicle age, and insufficient funds for replacements. • The approval phase of the purchase order process remains very slow, further impacting fleet availability. • Excavators and maintenance services are subcontracted. • Pipe layers (<i>tuberas</i>) were received but were sent for warranty repairs. • During FY2025, new vehicles were acquired, bringing the total available fleet to 30 units, distributed as follows: – Arecibo Operational Area: two trucks, one flushing unit, eight pickups, and one flatbed, for a total of 12 vehicles. – Toa Alta Operational Area: one truck, one flushing unit, two pickups, and one flatbed, for a total of five vehicles. – Manatí Operational Area: one truck, one flushing unit, two pickups, and two flatbeds, for a total of six vehicles. – Utuado Operational Area: one truck, five pickups, and one flatbed, for a total of seven vehicles.
	Staff	• Recruitment is currently very challenging. • Vacancies are available for the following positions: drinking water plant operators, electromechanics (electricians and/or mechanics), maintenance brigades, pipefitters, and a maintenance manager for the Toa Alta Operational Area. • The current total headcount is 742 employees. • Approximately \$3M has been allocated to contracted services provided by private companies. • Due to significant understaffing, brigades and plant operators are being subcontracted. • Telemetry and preventive maintenance services are also provided by subcontractors, as there are not sufficient personnel for these activities. Even private companies are experiencing recruitment challenges for these positions.

Region	Initiatives and Projects	Description
	Projects	WTPs: • The project at Corozal Urbano WTP has been completed, and operations continue even when the dam is out of service due to excessive precipitation. • Package plants and WTPs located in Barceloneta and Dorado are currently undergoing repair and improvement projects. • In Naranjito, a new WTP is under evaluation that could potentially replace Achioté I WPS, Achioté II WPS, Caserío WPS, El Cerro WPS, Montegil WPS, and the service area of Lomas del Viento WPS. • A new 25MG WTP in Arecibo is currently under evaluation, with the goal of replacing the Río Arriba WTP while maintaining the connection with the Superaqueduct WTP to provide up to 9MG through redundancy if needed. WWTPs: • The construction phase for the Dorado Trunk has been completed; however, improvements to the Quintas de Dorado Trunk are still in progress. • The first phase of repairs at the Villa Esperanza Wastewater System has been completed. • Several WWTPs (Hatillo-Camuy, Islote, Dorado, Vega Baja, Vega Alta, Ciales, Corozal, Naranjito, Unibón, and Morovis) are being assessed for potential consolidation into the Barceloneta WWTP. Ancillary Facilities: • A new WPS is being evaluated to transfer water from Enrique Ortega WTP to the areas of Toa Alta, Naranjito, and Corozal, with consideration for the elimination of the Bayamón pathway. • Technology upgrades and pump replacements are ongoing in projects at the following WPS: San Juan Cement in Dorado, Quebrada Arenas in Vega Baja, Monaco in Manatí, and Piletas in Lares. • Tank improvement projects are in progress at Cordillera WTP and Buena Vista "Cuesta del Río" in Arecibo. • A new WPS at the Palacios WST is under evaluation, which may result in the elimination of the Winche WST and Contorno WST. WTPs, WWTPs, and Ancillary Facilities: • An ongoing evaluation is considering the elimination of several facilities, including Lomas del Viento WPS, Canalizo WTP, La Pica WTP, Achioté I WPS, Caserío WPS, El Cerro WPS, and several associated tanks, WWPSs, and WWTPs. • Approximately 70% of the projects are managed by the Infrastructure Department. • The most important projects are: – Naranjito System (WTP, distribution system, and dam) – A new 25MG Arecibo Urbano WTP or increasing the capacity of the Superaqueduct – Jayuya Urbano WTP (elimination of several facilities) • Refer to Appendix D for the capital improvement projects.

Region	Initiatives and Projects	Description
South	Compliance	Operation KPIs: • In FY2025, actual meter readings accounted for 93% of measurements in the region, while estimated readings made up the remaining 7%. • Drinking water and wastewater compliance KPIs were achieved at rates of 100% and 94.9%, respectively. • Spare parts inventory was implemented to identify required purchases and increase redundancy. As a result, redundancy levels of 86% for drinking water and 92% for wastewater were achieved. Process Optimization and Regulatory Compliance in Treatment Plants: • The transition from gas chlorine to liquid chlorine remains a priority, as only 36% of facilities still use gas chlorine. In Yauco, nearly all WTPs, WWTPs, and wells have completed the transition. However, in Ponce Nueva WWTP, the transition is not viable due to the required quantity of chlorine. • The Compliance Department has initiated an island-wide program to evaluate different polymers and adjust dosing in order to reduce chemical consumption. • Projects to ensure compliance with LT2 limits are ongoing at Real Anón and Rucio WTPs. Additional projects to rehabilitate WTPs and WWTPs, as well as to ensure compliance, are in progress. WTPs: • Non-compliance with DBP limits was reported at several systems, including the Coto Laurel, Patillas Urbano, and Duey systems. In particular, the Coto Laurel system is facing greater challenges in meeting the DBP limits. • The following measures are continuously being implemented to ensure compliance with DBP limits: - Frequent cleaning of sedimentation and distribution tanks. - Elimination of the pre-chlorine injection. - Use of permanganate for manganese control at Cerrillo Intake and Toa Vaca WTP. - Tank oscillation in accordance with PRASA's SOP. - Optimization of plant processes and distribution systems in collaboration with Rene Rentas and the PRDOH. Ponce Nueva, Coto Laurel, and Yahuecas WTPs were selected for the plant optimization program. - Completion of a brochure detailing sampling points, including DBP locations and coordinates. This brochure covers the 14 systems involved in the plant optimization program.

Region	Initiatives and Projects	Description
	NRW	• The following initiatives are continuously implemented: - Discharges are performed as needed when non-compliance with turbidity and chlorine parameters is detected. During fire hydrant flushing, portable flow meters are used to account for water losses. - All WTPs have meters installed at the entrance to measure or estimate production. - Pressure adjustments are made following a system evaluation, which includes assessment of air valves and regulators. If multiple ruptures occur in the same area, pressure adjustments are carried out. - Regulators and sustaining valves are installed to support operational adjustments. Installations in Patillas are complete, and those in Maunabo will be finished by December 2025. - PRASA brigades correct hidden after pictometry brigades localize them using sound technologies. - Meters are being installed in wells to improve monitoring. - Digital pressure gauges (coquitrols) are installed, particularly in locations where other equipment is unsuitable due to size constraints. In FY2026, brigades were assigned to locate the distribution pipeline exit at Adjuntas Vieja (Olimpia) for pressure gauge installation. - Water transfers to tank trucks are manually recorded across the island. - Visualization and monitoring of tank overflows are maintained via the SCADA system. Overflows are measured and reported as required. - YODC devices in five WSTs remain out of service. • Weekly NRW meetings are held to review progress when the coordination contract with CSA is active. • Pressure control courses will be resumed to improve response times to field issues.
	Energy Consumption Reduction	• The goal is to achieve a 0.5% reduction in energy consumption. • Generators are owned, and additional units are rented only when necessary. Currently, only 3-4 generators are unavailable. • All WWPSs have generators available, as required by regulations. • An island-wide contract is active to ensure generator availability during hurricane season. • Spare filters are stocked to maintain optimal conditions for existing generators. • Company A1 provides generator repair services as needed. • LED lights are being purchased and installed in all facilities. • Timers have been installed in wells to stop operations at night. • To reduce nighttime energy consumption, timers were installed in blowers at WWTPs to limit operating hours; however, the initiative proved unviable. • Installation of timers in pumps is ongoing, with a target savings of \$783,000. • Improvements are needed at Baramaya WPS to decrease the running time.
	Operations Optimization	• Contracts with Cortes Industrial (for equipment with a capacity of 200hp or more) and Caribbean Electric (for equipment with a capacity of 200hp or less) are active to provide repair services for motors and pumps. • The Salinas Aquifer Restoration is no longer classified as an emergency; however, water levels continue to decline, as reported by USGS. Normal extractions by PRASA (4 MGD) are not significant enough to further reduce aquifer levels. Farmers in Santa Isabel and Salinas also extract from the aquifer. The drought committee remains inactive until water levels reach a critical threshold. The design phase for the New Salinas WTP is nearing completion, and the project will result in 14 wells being placed on standby. • Several WPS are operated based on pressure, particularly at night when the water consumption decreases.

Region	Initiatives and Projects	Description
	Pipe Ruptures	- All operational areas are implementing initiatives to prevent pipeline ruptures, including pressure control, regulator valve maintenance, pressure zone management, and float valve replacement. - Water transfers from Carite to Guayama WTP were suspended to prioritize the rehabilitation project. The design considers water transfers of 4,167GPM, with an investment of \$6.7M. To decrease water pressure in the raw water pipeline from Carite Dam, a contract has been awarded to the General Sewer Contractor. This pressure reduction will lower energy consumption at the Rexmanor WPS due to decreased raw water pumping requirements. If PREPA provides adequate capacity at the Carite dam, the operations will consist of 30% gravity and 70% forced flow from the Patillas dam. This configuration will ensure total redundancy for the Guayama WTP during emergencies. - Refer to Appendix K for the most important pipeline rehabilitation projects.
	Financial	Operations continue to be impacted by significant increases in the cost of chemical supplies, equipment, asphalt material, private services, and labor.
	Fleet	- The customer service team received new fleet vehicles; however, additional vehicles are still needed. - Several vehicles are currently rented to support line workers and preventive maintenance activities. - Light mechanical work is performed by PRASA personnel, while more technical repairs are handled through active contracts with Mayagüez Fleet, Pep Boys, and two small repair shops. - The total available fleet is 23 vehicles. - During FY2025, new vehicles were acquired, bringing the total available fleet to 23 units, distributed as follows: - Coamo Operational Area: one pickup and one flushing truck, for a total of two vehicles. - Guayama Operational Area: four pickups, for a total of four vehicles. - Ponce Operational Area: 14 pickups, one flushing truck, and one forklift, for a total of 16 vehicles. - Yauco Operational Area: one pickup, for a total of one vehicle.
	Staff	- There are open positions for licensed electricians, operators, and Engineers in Training (EITs) for managerial roles. - Operator retention needs to be improved.

Region	Initiatives and Projects	Description
	FY2025 and FY2026 Initiatives & Projects	- Hydraulic modeling to replace the Brisas I and Brisas II WPSs with the Diamante WST was determined to be unviable. - Jacobs' hydraulic modeling for the Ponce Urbano system is scheduled for completion by December 2025. Evaluations of the Ponce Vieja WTP, Ponce Nueva WTP, and surrounding wells are underway to optimize operations and reduce water losses. - The Monte Pelado system is being assessed for the potential elimination of the Monte Pelado WPS. The system, including both WPS and WST, was rehabilitated following the earthquakes a few years ago. A subsequent project is planned to address the elimination of the WPS. - The Infrastructure Department is considering a project to eliminate the NPDES discharge and connect Ponce Nueva WTP to the Ponce Wastewater System. - Guayanés WTP will not be eliminated; however, construction of the Peñuelas Urbano WTP remains in the plans. - The key projects are: - Rehabilitation of the communication network and critical equipment at Yauco Membrane WTP. Construction is ongoing, and costs have increased to \$600,000 following a change of order. - Rehabilitation of Patillas Membrane WTP, which supplies water to Arroyo and Patillas - Rehabilitation of <i>Aguas Crudas</i> Intake in Orocovis. - In FY2025, the key emergency projects were: - Intake improvements at Las Marías Dam. - Packaging plant and clarifier upgrades at Guayanilla WWTP. - Clarifier repairs at Guánica and Ponce WWTPs. - Refer to Appendix E for the capital improvement projects.
East	Compliance	Operation KPIs: - The overall KPIs for drinking water and wastewater are at 99.6% and 97.9% completion, respectively. WTPs: - Ongoing efforts for disinfection byproducts (DBPs) control include: - Operational adjustments. - Tank oscillation. - System cleaning and drainage. - Discharge operations. - Unit washing. - Use of permanganate to ensure facility compliance. - New polymer testing is currently on hold. - The Río Blanco system experienced non-compliance with BDP limits for the TTHM parameter during FY2025. - In response, the following measures were implemented: - Oscillation of WST. - System drainage. - Reduction in disinfectant usage to restore and maintain compliance. WWTPs: - Nutrient limits for nitrogen and phosphorus continue to be closely monitored. - USEPA approved Caguas WWTP during FY2025. - Cayey, Caguas, and Culebra WWTPs experienced intermittent issues with elevated enterococci concentrations throughout the fiscal year.

Region	Initiatives and Projects	Description
	NRW	- During this FY, NRW meetings continued. - The goal was to achieve less than 76.12 MGD of annual NRW. - This target was met during the period and will remain unchanged for the next FY. - To achieve this result, the following initiatives were implemented: - Pressure adjustments. - Correction of hidden leaks. - Sectorization. Equipment and facility optimization.
	Energy Consumption Reduction	- PRASA aims to reduce energy consumption across all facilities. - In FY2025, the 0.5% energy reduction target was achieved through: - Elimination of WPSs. - Installation of new equipment. - Management of blower's run times. - The Infrastructure Department has implemented initiatives such as the installation of efficient equipment; however, projects with potential impact on energy consumption are currently ongoing. - Meetings to address energy reduction have been put on hold, in coordination with the IMP Department.
	Water Transfers	- Water transfers from Cayey to Salinas and from El Yunque to Loíza are being measured. - A flow meter is still needed to monitor water transfers from Canóvanas to Naranjito. - The Piedras Blancas WST continues to receive water from the Superaqueduct; however, its entrance flow meter is currently out of service.
	Pipe Ruptures	- Refer to Appendix L for drinking water pipe ruptures. - Refer to Appendix M for sanitary pipe ruptures.
	Financial	The replacement of equipment and pipelines due to corrosion, as well as ongoing emergency projects aimed at improving aging infrastructure, have been impacted by a lack of funding. Despite these financial challenges, emergency projects are proceeding at several WTPs, including Cayey Urbano, Ceiba Sur, Comerío, Caguas Norte, San Lorenzo (Cerro Gordo), Luquillo (Sabana), and El Yunque.
	Fleet	- Although new vehicles—such as pickups (brigades and <i>cotejo</i>), pipe layers (<i>tuberas</i>), and three trucks—were acquired to strengthen the fleet, there is still a need for additional vehicles, including trucks and flatbed trucks. - The hiring of additional crews for drinking water and sanitary services remains an identified need. - Approximately 10 private repair workshops are maintained. - Efforts to improve the efficiency and timeliness of vehicle repairs have continued throughout this fiscal year.
	Staff	- There are currently several vacancies, including technical managers, a maintenance manager for the Humacao Operational Area, operators, electromechanics, and compliance specialists—particularly in the Operational Areas of Caguas, Cayey, and Humacao. - To address these gaps, a private company has been contracted to assist with brigades, utility and pipeline repairs, and water leak detection.
	Projects	- Several emergency projects were addressed during this FY, including: - The design for Caguas WWTP and El Yunque WTP. - The initiation of the contract process for Caguas Norte WTP. - Ongoing construction at Ceiba Sur (Valenciano) WTP. - Refer to Appendix F for capital improvement projects.

Appendix B

West Region CIP Projects

Appendix B

West Region CIP Projects

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0801003W	EBAS Periche - D&B Emergency Generators - Phase 4 West	Mayagüez	05/29/2026	\$400,000.00	Generators
CIP.0801003W	EBAS Ramírez de Arellano - D&B Emergency Generators - Phase 4 West	Mayagüez	05/29/2026	\$400,000.00	Generators
CIP.0801003W	EBAS Pozo Hondo - D&B Emergency Generators - Phase 4 West	Mayagüez	05/29/2026	\$400,000.00	Generators
CIP.2017005	Rehabilitación PF Culebrinas FEMA (FAAST)	Aguadilla	05/15/2027	\$110,102,570.01	Drinking Water
CIP.2039000	Rehabilitation of Sanitary Sewer Pump Station Guerrero 2 (FAAST)	Aguadilla	01/07/2025	\$5,676,059.99	Wastewater
CIP.2375002	Design and build for the rehabilitation of the Isabela-Aguada trunk sewer (FAAST)	Isabela	06/04/2027	\$42,552,298.18	Wastewater
CIP.2375003	Reemplazo tubería sanitaria en Isabela Infiltración) (FAAST)	Isabela	02/25/2027	\$18,782,764.16	Wastewater
CIP.2515000	Sistema Sanitario Comunidad Lomas Verdes, Barrio Isleta	Moca	06/25/2027	\$29,447,032.00	Wastewater
CIP.4046010	Mejoras a la Toma de Río Añasco y Desarenador	Añasco	05/11/2029	\$22,058,348.00	Drinking Water
CIP.5009001	Tanque Saltos A y B - Rehabilitación de Tanques Fase 1 - Oeste (FAAST)	San Sebastián	08/28/2025	\$491,622.61	Drinking Water
CIP.5009001	Tanque Achiotillo 2 - Rehabilitación de Tanques Fase 1 - Oeste (FAAST)	Maricao	08/28/2025	\$213,825.71	Drinking Water
CIP.5009001	Tanque Achiotillo 4 - Rehabilitación de Tanques Fase 1 - Oeste (FAAST)	Maricao	08/28/2025	\$212,355.29	Drinking Water
CIP.5009001	Tanque Carreras IA y IB - Rehabilitación de Tanques Fase 1 - Oeste (FAAST)	Añasco	08/28/2025	\$1,120,340.48	Drinking Water
CIP.5009001	Tanque Carreras II - Rehabilitación de Tanques Fase 1 - Oeste (FAAST)	Añasco	08/28/2025	\$220,340.48	Drinking Water
CIP.5009001	Tanque Cerrillos Cancha - Rehabilitación de Tanques Fase 1 - Oeste (FAAST)	Cabo Rojo	08/28/2025	\$791,622.61	Drinking Water
CIP.5009001	Tanque Palmas - Rehabilitación de Tanques Fase 1 - Oeste (FAAST)	Cabo Rojo	08/28/2025	\$791,622.61	Drinking Water

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.5009005	D&B Rehabilitation of Wastewater Pump Stations - West Region	Mayagüez	06/24/2028	\$20,000,000.00	Wastewater
CIP.5009006	D&B Emergency Generators - Wastewater - West Region - Phase V	Isabela	10/15/2027	\$7,000,000.00	Generators
CIP.5009007	D&B Emergency Generators - Drinking Water - West Region - Phase V	Cabo Rojo	11/15/2027	\$4,000,000.00	Generators
CIP.5009103	Rehabilitación de Estaciones de Bomba Fase 1- Oeste (FAAST)	Mayagüez	07/14/2028	\$8,794,205.77	Drinking Water
CIP.5009104	Rehabilitación de EBAS Fase 1- Oeste (FAAST)	Mayagüez	09/04/2028	\$10,915,937.00	Wastewater
CIP.5009106	Hormigueros II -Rehabilitación de Pozos Fase 1- Oeste (FAAST)	Mayagüez	07/30/2029	\$1,883,372.00	Drinking Water
CIP.5009106	La Monserrate -Rehabilitación de Pozos Fase 1- Oeste (FAAST)	Mayagüez	07/30/2029	\$1,883,373.00	Drinking Water
CIP.5009106	Club de Leones -Rehabilitación de Pozos Fase 1- Oeste (FAAST)	Mayagüez	07/30/2029	\$1,883,373.00	Drinking Water
CIP.5036006	Rehabilitación de la PF Aguadilla Montaña (FAAST)	Aguadilla	09/29/2029	\$50,000,000.00	Drinking Water
CIP.5065004	Termination of Extension of Sanitary Sewer System to the Northwest Part of the Municipality of Añasco at Quebrada Larga, Caracol, Piñales, and Hatillo Ward (Project Completion)	Añasco	09/02/2026	\$8,829,553.32	Wastewater
CIP.5069000	NRW- D&B Installation of 4" DI and 6"Ø Parcelas Aquilino (FAAST)	Añasco	09/23/2027	\$2,773,419.14	Rehabilitation and Replacement
CIP.5089000	Rehabilitación de la Planta de Wastewater Las Marías (FAAST)	Las Marías	06/28/2029	\$15,000,000.00	Wastewater
CIP.5127006	Rehabilitación PF Betances	Cabo Rojo	07/28/2029	\$19,125,874.52	Drinking Water
CIP.5376001	Reparación Membranas Geosintéticas Lago Regulador de Isabela (FAAST)	Isabela	11/19/2026	\$25,818,832.43	Drinking Water

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.5379000	NRW- D&B Installation of 6" DI PR-4445 Sector Chevin (FAAST)	Isabela	09/22/2027	\$4,643,343.38	Rehabilitation and Replacement
CIP.5379002	New Guajataca WTP Floating Raw Water Intake (FAAST)	Isabela	07/19/2025	\$8,862,384.55	Drinking Water
CIP.5415016	Rehabilitación PF Lajas	Lajas	11/29/2028	\$8,300,000.00	Drinking Water
CIP.5415031	Rehabilitación de la PAS Lajas (FAAST)	Lajas	12/14/2027	\$15,808,765.45	Wastewater
CIP.5435016	Mejoras al Sistema de Distribución de las Marías	Las Marías	05/06/2027	\$16,584,940.00	Drinking Water
CIP.5485005	Rehabilitación de la Toma de Agua Orama de PF Maricao	Maricao	09/23/2028	\$10,204,158.25	Drinking Water
CIP.5486006	Rehabilitación PF Monte del Estado (FAAST)	Maricao	06/27/2028	\$17,458,238.51	Drinking Water
CIP.5486007	Rehabilitación de la PF Maricao (FAAST)	Maricao	01/24/2028	\$12,000,000.00	Drinking Water
CIP.5489001	Rehabilitación de la Toma de Aguas Crudas PF Monte del Estado (FAAST)	Maricao	03/15/2029	\$11,892,337.83	Drinking Water
CIP.5505028	Mayagüez WWTP Improvements (FAAST)	Mayagüez	07/18/2028	\$123,345,661.02	Wastewater
CIP.5506044	Mejoras Sistema Aguas Crudas PF Miradero en Mayagüez	Mayagüez	03/15/2028	\$50,362,407.56	Drinking Water
CIP.5506046	Rehabilitación de la PF Ponce de León (FAAST)	Mayagüez	08/25/2028	\$35,000,000.00	Drinking Water
CIP.5506047	Rehabilitación de la PF Miradero y la Toma (FAAST)	Mayagüez	09/27/2029	\$48,301,783.52	Drinking Water
CIP.5507007	Mejoras al Sistema de Agua Potable del Bo. Río Cañas	Mayagüez	10/12/2025	\$4,512,359.65	Drinking Water
CIP.5509000	NRW- D&B Installation of 6" of diameter, PVC SDR-14, Calle Dr. Escabí, and 4" of diameter, PVC SDR-14. (Bo. Paris - Mayagüez) (FAAST)	Mayagüez	09/22/2027	\$3,162,851.00	Rehabilitation and Replacement
CIP.5509001	D&B for the Rehabilitation of Hormigueros and Mayagüez Trunk Sewer (FAAST)	Mayagüez	12/03/2025	\$33,241,482.06	Wastewater

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.5509105	Rehabilitación Emisario Mayagüez (FAASt)	Mayagüez	11/03/2028	\$100,000,000.00	Wastewater
CIP.5515015	Diseño/Construcción de Instalación de Tubería de 10" Ø en PR-111 y PR-444 y la Rehabilitación de la Estación de Bombas Cuchillas I	Moca	03/23/2027	\$5,950,000.00	Drinking Water
CIP.5579003	NRW- Installation of 4" DI. Sector Correa (FAASt)	Rincón	09/22/2027	\$2,749,024.78	Rehabilitation and Replacement
CIP.5596001	Rehabilitación de la PF Guajataca y la Toma	Quebradillas	11/30/2028	\$17,000,000.00	Drinking Water
CIP.5609001	D&B Instalación Tubería 12" en PR-115 en Rincón (FAASt)	Rincón	08/29/2028	\$8,955,192.00	Drinking Water
CIP.5625016	Diseño/Construcción Mejoras en el Sistema STS de PF Sabana Grande Urbana	Sabana Grande	01/22/2029	\$3,450,000.00	Drinking Water
CIP.5639000	NRW- D&B Installation of pipes PVC SDR-14 of 4" DI. Las Parcelas Lluveras (FAASt)	Sabana Grande	09/23/2027	\$3,011,982.26	Rehabilitation and Replacement
CIP.5675016	Rehabilitación de PF San Sebastián (Calabazas)	San Sebastián	11/29/2028	\$8,300,000.00	Drinking Water
CIP.5685000	Reemplazo de Tuberías Sanitarias (Infiltración) (FAASt)	San Sebastián	07/26/2030	\$19,150,625.00	Wastewater
CIP.5685003	Design and Build for the termination of the San Sebastián trunk sewer relocation state road PR-111, and PR-125	San Sebastián	06/16/2025	\$9,045,883.00	Wastewater
CIP.5685006	NRW- Design-Build Improvements to Villa Rita Drinking Water System (FAASt)	San Sebastián	09/22/2027	\$3,901,369.23	Rehabilitation and Replacement
REN.631834	Design and build for the Sediment Removal from the Reservoir Ponds of Montaña Water Treatment Plant (CIP.0998022)	Aguadilla	06/09/2025	\$3,568,280.85	Drinking Water

Appendix C

Metro Region CIP Projects

Appendix C

Metro Region CIP Projects

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.1116011	Diseño/Construcción Mejoras PF Barrio Nuevo o Eliminación	Bayamón	07/29/2028	\$8,300,000.00	WTP: Existing Facility
CIP.1009007	D&B Rehabilitation of Wastewater Pump Station - Metro Region	Loíza	02/26/2029	\$20,000,000.00	Wastewater Pump Station
CIP.1455017	Carolina Regional Wastewater Treatment Plant and Torrecillas Wastewater Pump Station - Microgrid	Loíza	08/26/2028	\$26,626,500.00	WWTP: Existing Facility
CIP.1616002	Rehabilitation of PF Guzmán Arriba	Río Grande	11/29/2028	\$8,300,000.00	WTP: Existing Facility
CIP.0998223	Renovación Sistemas Colección Sanitaria (SSOMP) 2024-2025	San Juan	04/27/2028	\$10,000,000.00	Sanitary Sewer Systems
CIP.1669001	Diseño, Construcción y Mejoras Sistema Distribución AP Hollywood Hills	San Juan	03/26/2029	\$2,383,244.00	Aqueduct Systems
CIP.1715016	Sergio Cuevas Water Treatment Plant and Cupey Pump Station Distributed Generation (DG) System	San Juan	06/15/2029	\$66,873,399.00	WTP: Existing Facility
CIP.1009002	Control de Sedimentos Embalse Carraízo	Trujillo Alto	12/15/2027	\$90,773,063.00	Supplies ("Abastos")
CIP.1076003	Super Aqueduct Microgrid (FAASt-MIT)	Arecibo	05/29/2027	\$97,569,268.00	Other Projects (Water and Sewer)
CIP.2916002	Rehabilitación de la PF Superacueductos (FAASt)	Arecibo	12/31/2029	\$125,000,000.00	WTP: Existing Facility

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.1075016	Estabilización del meandro del Río Grande para proteger el dique del Lago Regulador del Superacueducto	Barceloneta	02/15/2027	\$1,529,800.00	Supplies ("Abastos")
CIP.1115066	Improvement to Sanitary Trunk Sewer Van Scoy	Bayamón	12/19/2027	\$11,783,639.00	Sanitary Sewer Systems
CIP.1116008	Mejoras a la Toma Santa Rosa de la PF Guaynabo (FAAST)	Bayamón	04/19/2028	\$61,752,977.00	WTP: Existing Facility
CIP.1156004	Rehabilitación de la PF Cubuy y la Toma (FAAST)	Canóvanas	07/04/2029	\$12,000,000.00	WTP: Existing Facility
CIP.1165044	Mejoras a la PAS Regional de Carolina Fase II, Loíza ((FAAST)	Carolina	12/15/2028	\$97,244,214.00	WWTP: Existing Facility
CIP.1016095	Rehabilitación de la PF Guaynabo (FAAST)	Guaynabo	05/25/2029	\$90,000,000.00	WTP: Existing Facility
CIP.1009103	Rehabilitación de Estaciones de Bomba Fase 1- Metro ((FAAST)	San Juan	09/13/2028	\$3,000,000.00	Water Pump Station
CIP.1665105	Sistema Alcantarillado Sanitario Comunidad Buena Vista Santurce (ARPA)	San Juan	03/08/2029	\$32,499,002.00	Sanitary Sewer Systems
CIP.1665110	Terminación Mejoras para Planta Ideal PAS Puerto Nuevo (Antes 1-66-5096)	San Juan	01/05/2028	\$15,464,496.00	WWTP: New Facility
CIP.1665900	Rehabilitación y Mejoras a EBAS Martín Peña (Tokio) (FAAST)	San Juan	04/15/2029	\$12,378,554.00	Wastewater Pump Station
CIP.1666091	Sistema Distribución Agua Potable Comunidad Buena Vista Santurce (ARPA)	San Juan	03/08/2029	\$27,070,589.00	Aqueduct Systems
CIP.1666094	Sistema Pluvial Comunidad Buena Vista Santurce (ARPA)	San Juan	03/08/2029	\$104,192,538.00	Aqueduct Systems

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.1669003	Rehabilitación al Edificio Central AAA - Sede (FAASt)	San Juan	05/26/2027	\$23,133,540.00	Buildings/Infrastructure
CIP.1119003	D&B Troncal 18" Villa Rica	Bayamón	11/17/2026	\$2,676,705.00	Sanitary Sewer Systems
CIP.1009005	D&B Emergency Generators - Drinking Water - Metro Region - Phase V	Guaynabo	09/22/2029	\$4,000,000.00	Generators
CIP.0998220	Renovación Sistemas de Colección Sanitaria (SSOMP) 2021-2022	San Juan	06/23/2026	\$6,813,644.00	Sanitary Sewer Systems
CIP.1009008	D&B Emergency Generators - Wastewater - Metro Region - Phase V	San Juan	08/22/2029	\$7,000,000.00	Generators
CIP.1665104	Relocation of Rexach Trunk Sewer at Caño Martín Peña	San Juan	07/17/2028	\$16,678,012.00	Sanitary Sewer Systems
CIP.1665111	Puerto Nuevo Regional WWTP Grit System	San Juan	10/15/2028	\$50,203,780.00	WWTP: New Facility
CIP.1719000	D&B Troncal 12" calle Boulevard Monroig en Levittown	Toa Baja	03/18/2027	\$1,995,420.00	Sanitary Sewer Systems
CIP.1726043	Rehabilitación de la PF Sergio Cuevas (FAASt)	Trujillo Alto	12/29/2030	\$150,000,000.00	WTP: Existing Facility
CIP.0801002M	EBAS Quintanas del Río - Emergency Generators - Phase 3 Metro	Bayamón	11/15/2024	\$245,402.00	Generators
CIP.0801003M	EBAS RÍO PLANTATION - D&B Emergency Generators - Phase 4 Metro	Bayamón	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS VILLA DE BUENA VISTA - D&B Emergency Generators - Phase 4 Metro	Bayamón	04/22/2027	\$337,030.00	Generators

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.1119002	D&B Troncal Sanitaria Urb. Los Dominicos	Bayamón	12/01/2025	\$1,873,030.00	Sanitary Sewer Systems
CIP.0801002M	EB TK Campo Rico (El Comandante) - Emergency Generators - Phase 3 Metro	Canóvanas	03/31/2026	\$278,957.00	Generators
CIP.0801003M	EBAS SAN ISIDRO - D&B Emergency Generators - Phase 4 Metro	Canóvanas	04/22/2027	\$337,030.00	Generators
CIP.1159000	Diseño – Construcción y Rehabilitación Estación de Bombas La Central (FAAST)	Canóvanas	09/28/2026	\$3,668,875.00	Aqueduct Systems
CIP.1159001	NRW- Reemplazo y Renovación Tubería AP Urb. Loiza Valley (FAAST)	Canóvanas	09/29/2026	\$2,641,814.00	Aqueduct Systems
CIP.0801003M	EBAS CAROLINA PUEBLO - D&B Emergency Generators - Phase 4 Metro	Carolina	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS MARTÍN GONZÁLEZ - D&B Emergency Generators - Phase 4 Metro	Carolina	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS BUENA VENTURA - D&B Emergency Generators - Phase 4 Metro	Carolina	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS JARDINES DE CAROLINA - D&B Emergency Generators - Phase 4 Metro	Carolina	04/22/2027	\$337,030.00	Generators
CIP.1169002	NRW- Reemplazo y Renovación Tubería AP Urb. Villa Fontana (FAAST)	Carolina	09/29/2026	\$2,847,184.00	Aqueduct Systems

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.1669101	NRW- Reemplazo y Renovación Tubería AP Urb. Country Club (FAAST)	Carolina	09/29/2026	\$3,902,711.00	Aqueduct Systems
CIP.0801003M	EBAS ENRAMADA - D&B Emergency Generators - Phase 4 Metro	Cataño	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS BAY VIEW - D&B Emergency Generators - Phase 4 Metro	Cataño	04/22/2027	\$337,030.00	Generators
CIP.1116014	Completion of Bayamón WWTP Improvements Phase I	Cataño	08/09/2027	\$26,966,608.00	WWTP: Existing Facility
CIP.0801002M	RP Calero Lakes - Emergency Generators - Phase 3 (New Scope to Aguadilla) RP Santa Rosa-Guaynabo (Out of Scope)	Guaynabo	03/31/2026	\$1,122,763.00	Generators
CIP.0801002M	EB Hasta Mañana - Emergency Generators - Phase 3 Metro (Only Delivery)	Guaynabo	03/31/2026	\$432,711.00	Generators
CIP.0801003M	EBAS MABO - D&B Emergency Generators - Phase 4 Metro	Guaynabo	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS PALMAR DEL RÍO - D&B Emergency Generators - Phase 4 Metro	Guaynabo	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS SANTA ELENA III - D&B Emergency Generators - Phase 4 Metro	Guaynabo	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS GARDENVILLE - D&B Emergency Generators - Phase 4 Metro	Guaynabo	04/22/2027	\$337,030.00	Generators

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0801003M	EBAS MONTEBRISAS - D&B Emergency Generators - Phase 4 Metro	Guaynabo	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS PORTICOS DE GUAYNABO - D&B Emergency Generators - Phase 4 Metro	Guaynabo	04/22/2027	\$337,030.00	Generators
CIP.1019001	D&B for the Improvements to the Sonadora Water Distribution System (FAAST)	Guaynabo	06/15/2026	\$4,851,990.00	Aqueduct Systems
CIP.1019003	NRW- Reemplazo Tubería AP Ave. Juan Ponce de León, Bo. Amelia (FAAST)	Guaynabo	09/29/2026	\$3,392,661.00	Aqueduct Systems
CIP.0801003M	EBAS VILLAS DEL MAR BEACH RESORT - D&B Emergency Generators - Phase 4 Metro	Loíza	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS LOÍZA C (GARDEN) - D&B Emergency Generators - Phase 4 Metro	Loíza	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS LOÍZA D - D&B Emergency Generators - Phase 4 Metro	Loíza	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS LOÍZA E - D&B Emergency Generators - Phase 4 Metro	Loíza	04/22/2027	\$337,030.00	Generators
CIP.1169001	Design and Build for the Los Ángeles and Loíza Pueblo trunk sewers (FAAST)	Loíza	12/30/2026	\$11,762,333.00	Sanitary Sewer Systems
CIP.0801002M	RP Guzmán Río - Emergency Generators - Phase 3 Metro	Río Grande	10/28/2024	\$311,217.00	Generators

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0801002M	EB Saint Just - Emergency Generators - Phase 3 Metro	San Juan	04/08/2025	\$720,558.00	Generators
CIP.0801003M	EBAS MONTE REAL - D&B Emergency Generators - Phase 4 Metro	San Juan	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS COUNTRY CLUB - D&B Emergency Generators - Phase 4 Metro	San Juan	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS LA MARINA - D&B Emergency Generators - Phase 4 Metro	San Juan	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS LAS CUMBRES - D&B Emergency Generators - Phase 4 Metro	San Juan	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS LADERAS DE SAN JUAN - D&B Emergency Generators - Phase 4 Metro	San Juan	04/22/2027	\$337,030.00	Generators
CIP.0998222	Renovación Sistemas Colección Sanitaria (SSOMP) 2023-2024	San Juan	01/29/2027	\$7,111,260.00	Sanitary Sewer Systems
CIP.1665120	NRW- Renovación Tubería SDR14 Urb. Country Club ((FAAST)	San Juan	09/29/2026	\$4,295,657.00	Aqueduct Systems
CIP.0801003M	EBAS JARDINES DEL ESCORIAL - D&B Emergency Generators - Phase 4 Metro	Toa Alta	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS ALTO MONTE - D&B Emergency Generators - Phase 4 Metro	Toa Alta	04/22/2027	\$337,030.00	Generators

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.1709000	Enrique Ortega/La Plata WTP - Raw Water Intake Power Generator	Toa Alta	02/28/2028	\$39,805,169.00	Generators
CIP.2096007	Rehabilitation of the Enrique Ortega Water Treatment Plant (FAAST)	Toa Alta	07/03/2028	\$159,237,817.00	WTP: Existing Facility
CIP.0801003M	EBAS LEVITTOWN II (LAGO VISTA) - D&B Emergency Generators - Phase 4 Metro	Toa Baja	04/22/2027	\$337,030.00	Generators
CIP.0801003M	EBAS CANDELARIA ARENA - D&B Emergency Generators - Phase 4 Metro	Toa Baja	04/22/2027	\$337,030.00	Generators
CIP.0801002M	EB La Gloria - Emergency Generators - Phase 3 Metro	Trujillo Alto	07/12/2024	\$339,687.00	Generators
CIP.0801003M	EBAS VILLAS DE CANEY - D&B Emergency Generators - Phase 4 Metro	Trujillo Alto	04/22/2027	\$337,030.00	Generators
CIP.1019000	Design and Build for the Lago Loíza (Carraízo) Dredging (FAAST)	Trujillo Alto	01/22/2026	\$111,443,736.00	Supplies ("Abastos")
CIP.1076031	Design & Build for the Emergency Spillway Rehabilitation at Antonio Santiago Vázquez WFP (Fiona-FEMA)	Arecibo	02/10/2026	\$6,325,597.00	WTP: Existing Facility
CIP.1009001	Tanque Los Barros - Rehabilitación de Tanks Fase 1 - Metro (FAAST)	Bayamón	10/28/2024	\$818,212.00	Tanks
CIP.1009001	Tanque La Morenita - Rehabilitación de Tanks Fase 1 - Metro (FAAST)	Bayamón	10/28/2024	\$618,218.00	Tanks

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.1009001	Tanque Las Haciendas - Rehabilitación de Tanks Fase 1 - Metro (FAAST)	Canóvanas	10/28/2024	\$618,218.00	Tanks
CIP.1009001	Tanque Lomas de Carolina - Rehabilitación de Tanks Fase 1 - Metro (FAAST)	Carolina	10/28/2024	\$518,218.00	Tanks
CIP.1009001	Tanque El Comandante - Rehabilitación de Tanks Fase 1 - Metro (FAAST)	Carolina	10/28/2024	\$618,218.00	Tanks
CIP.0800074M	EBAS Santa Clara - Emergency Generators - Phase 2 Metro	Guaynabo	02/01/2024	\$148,317.00	Generators
CIP.1009001	Tanque Canta Gallo - Rehabilitación de Tanks Fase 1 - Metro (FAAST)	Guaynabo	10/28/2024	\$608,218.00	Tanks
CIP.1325074	Design & Build for the Emergency Project of Slope Instability in the PF Guaynabo (FIONA-FEMA)	Guaynabo	04/04/2024	\$4,336,330.00	WTP: Existing Facility
CIP.0800074M	EBAS Loíza Pueblo - Emergency Generators - Phase 2 Metro	Loíza	03/01/2024	\$137,695.00	Generators
CIP.0800074M	EBAS Buen Consejo - Emergency Generators - Phase 2 Metro	San Juan	01/26/2024	\$213,635.00	Generators
CIP.0800074M	EBAS Joffre - Emergency Generators - Phase 2 Metro	San Juan	01/26/2024	\$90,521.00	Generators
CIP.0800074M	EBAS Nemesio Canales - Emergency Generators - Phase 2 Metro	San Juan	01/16/2024	\$145,790.00	Generators
CIP.0800074M	EBAS Fuente Bella - Emergency Generators - Phase 2 Metro	Toa Alta	02/01/2024	\$92,998.00	Generators

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0800074M	EBAS Lourdes - Emergency Generators - Phase 2 Metro	Trujillo Alto	01/16/2024	\$42,672.00	Generators
CIP.1009001	Tanque Fair View - Rehabilitación de Tanks Fase 1 - Metro (FAAST)	Trujillo Alto	10/28/2024	\$508,218.00	Tanks
CIP.1009001	Tanque Saint Just - Rehabilitación de Tanks Fase 1 - Metro (FAAST)	Trujillo Alto	10/28/2024	\$608,218.00	Tanks

Appendix D

North Region CIP Projects

Appendix D

North Region CIP Projects

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0800074N	Emergency Generators - Phase 2 North	Arecibo	10/10/2025	\$6,585,580.00	Generators
CIP.0801002N	Emergency Generators - Phase 3 North	Naranjito	09/12/2025	\$4,355,400.00	Generators
CIP.0801003N	D&B Emergency Generators - Phase 4 North	Barceloneta	10/28/2027	\$10,419,817.00	Generators
CIP.2009001	Rehabilitación de Tanques Fase 1 - Norte (FAASt)	Manatí	10/30/2025	\$6,009,667.00	Tanks
CIP.2009005	D&B Rehabilitation of Wastewater Pump Stations - North Region	Utua	07/26/2028	\$20,000,000.00	Wastewater Pump Station
CIP.2009103	Rehabilitación de Estaciones de Bomba Fase 1- Norte (FAASt)	Manatí	04/15/2028	\$9,879,044.00	Water Pump Station
CIP.2009104	Rehabilitación EBAS Fase 1 - Norte (FAASt)	Morovis	05/25/2028	\$8,840,396.00	Wastewater Pump Station
CIP.2009106	Rehabilitación de Wells Fase 1- Norte (FAASt)	Manatí	06/30/2026	\$9,362,002.00	Wells
CIP.2071001	NRW - Design & Build to install new 4-inch diameter PVC DR-14 potable water pipelines (4,170 meters approx.) and to replace existing 2-inch and 4-inch diameter pipelines at Sector Sabana Hoyos (FAASt)	Vega Alta	07/27/2026	\$6,850,555.00	Aqueduct Systems
CIP.2009106	Rehabilitación de la PAS Islote (FAASt)	Arecibo	11/26/2029	\$181,264,346.00	Aqueduct Systems
CIP.2079002	Terminación de la Rehabilitación de la Trocal Sanitaria de 42" La Puntilla	Arecibo	11/21/2025	\$15,753,313.00	Sanitary Sewer Systems
CIP.2079004	Design Build Improvements to "Cerro Marquez" Pump Station & 2.0 MG TWST	Arecibo	05/06/2026	\$12,297,462.00	Water Pump Station
CIP.2079006	Rehabilitation of Radioville SSS	Arecibo	09/16/2028	\$10,787,220.00	Sanitary Sewer Systems
CIP.2095052	42" Diameter Trunk Sewer From PR-684 to South of the Barceloneta WWTP (FAASt)	Barceloneta	06/26/2026	\$50,172,565.00	Sanitary Sewer Systems
CIP.2149001	Rehabilitación de la Troncal Sanitaria Camuy (FAASt)	Camuy	01/27/2028	\$77,111,409.00	Sanitary Sewer Systems
CIP.2205019	PF Rehabilitación Pozas Ciales	Ciales	05/15/2029	\$8,300,000.00	WTP: Existing Facility

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.2206107	Rehabilitación de la PF Frontón y la Toma (FAAST)	Ciales	03/29/2027	\$47,330,239.00	WTP: Existing Facility
CIP.2246106	Toma PF Negros (FAAST)	Corozal	08/01/2026	\$7,646,237.00	WTP: Existing Facility
CIP.2246116	Rehabilitación de la PF Negros (FAAST)	Corozal	02/28/2029	\$35,000,000.00	WTP: Existing Facility
CIP.2265000	Sistema de Alcantarillado Sanitario Com. San Carlos, Ampliación EB Monte Elena	Dorado	04/26/2027	\$27,019,686.00	Sanitary Sewer Systems
CIP.2265002	New Dorado Trunk Sewer	Dorado	03/12/2025	\$42,969,165.00	Sanitary Sewer Systems
CIP.2265016	D&B Instalación tubería 12 " Carretera PR 691	Dorado	03/01/2027	\$10,438,149.00	Aqueduct Systems
CIP.2265017	Relocalización líneas de succión EB San Juan Cement	Dorado	03/01/2027	\$4,571,343.00	Water Pump Station
CIP.2269002	Eliminación de varias PAS del Norte	Dorado	10/30/2033	\$953,614,522.00	Sanitary Sewer Systems
CIP.2329004	Diseño Construcción Rehabilitación E/B Sistema Ciales Pozas (FAAST)	Ciales	09/10/2025	\$5,379,271.00	Water Pump Station
CIP.2346015	Rehabilitación de la PF Hatillo-Camuy (FAAST)	Hatillo	09/27/2027	\$53,765,394.00	WTP: Existing Facility
CIP.2346016	Diseño y Construcción de Tuberías de 6" y 4" PVC-SDR14 en el Bo. Bayaney (FAAST)	Hatillo	04/13/2026	\$7,219,918.00	Aqueduct Systems
CIP.2349003	Diseño Construcción Tubería 16" Carr. 119 Hatillo hacia Camuy (FAAST)	Hatillo	03/16/2026	\$6,606,115.00	Aqueduct Systems
CIP.2385003	Coabey Ward Sanitary Sewer System - Phase II	Jayuya	09/10/2025	\$12,812,986.00	Sanitary Sewer Systems
CIP.2385005	Diseño Construcción Estabilización y Protección Manhole Sanitario en Baxter Jayuya	Jayuya	06/29/2029	\$935,420.00	Other Projects (Water and Sewer)

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.2386047	Rehabilitación de la PF Jayuya Urbano (FAASt)	Jayuya	08/26/2028	\$38,458,618.00	WTP: Existing Facility
CIP.2386049	Eliminación de la PF Canalizo y PF Pica (FAASt)	Jayuya	05/27/2029	\$20,000,000.00	WTP: Existing Facility
CIP.2386057	Rehabilitación Represa y Estación Bombas Aguas Crudas PF Jayuya Urbano (FAASt)	Jayuya	08/15/2028	\$9,742,110.00	Water Pump Station
CIP.2387002	Relocation of Jesus Cruz Miranda Pump Station	Jayuya	05/30/2025	\$5,182,063.00	Water Pump Station
CIP.2389001	NRW- Improvements Tetuan III Com. Inst Water Pipeline 4"/2" PVC-SDR (FAASt)	Utado	07/27/2026	\$2,546,748.00	Aqueduct Systems
CIP.2425017	Rehabilitación Raw Water Intake Lares Espino WTP	Lares	03/28/2029	\$6,452,373.00	WTP: Existing Facility
CIP.2426099	D&B Mejoras al Sistema de Distribución de Indiera Alta (FAASt)	Lares	02/23/2029	\$6,500,000.00	Aqueduct Systems
CIP.2426100	Rehabilitación de la PF Lares Nueva Espino y la Toma (FAASt)	Lares	04/28/2026	\$29,222,742.00	WTP: Existing Facility
CIP.2475021	Rehabilitación de la PAS Barceloneta (FAASt)	Barceloneta	08/25/2032	\$147,000,000.00	WWTP: Existing Facility
CIP.2479000	NRW - Design & Build to install new 8-inch PVC DR-14 potable water pipeline (2,160 meters approx.) along State Road PR-685 at Sector Boquillas (FAASt)	Manatí	07/27/2026	\$2,840,176.00	Aqueduct Systems
CIP.2526006	Rehabilitación de PF Morovis Sur (FAASt)	Morovis	02/11/2027	\$44,723,799.00	WTP: Existing Facility
CIP.2526007	Rehabilitación de la PF Morovis Urbano (FAASt)	Morovis	04/27/2026	\$11,500,749.00	WTP: Existing Facility
CIP.2526008	D/C Mejoras al Sistema de Distribución de Morovis (FAASt)	Morovis	09/22/2027	\$37,131,501.00	Aqueduct Systems
CIP.2545017	Construcción de nueva Subestación Eléctrica de 38KV y "Offsite" Eléctrico con nuevo punto de conexión (POC)	Naranjito	08/15/2027	\$5,014,000.00	WTP: Existing Facility

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.2547001	Naranjito WTP	Naranjito	02/19/2029	\$73,733,493.00	WTP: New Facility
CIP.2547002	Construcción de Toma de Aguas PF Naranjito	Naranjito	05/25/2027	\$15,515,124.00	WTP: New Facility
CIP.2549000	Mejoras al Sistema de Transmisión y Distribución de Naranjito (FAAST)	Naranjito	04/15/2029	\$57,389,637.00	Aqueduct Systems
CIP.2555016	Toma de Aguas Crudas PF Sanamueitos	Orocovis	06/30/2029	\$6,792,476.00	Supplies ("Abastos")
CIP.2595016	Quebradillas Water Treatment Plant - Microgrid	Camuy	08/31/2028	\$8,780,336.00	WTP: Existing Facility
CIP.2596004	Rehabilitación de la PF Quebradillas y La Toma (FAAST)	Quebradillas	10/16/2028	\$58,734,007.00	WTP: Existing Facility
CIP.2709002	Tubería de 4" PVC SDR-14 en la Comunidad Villa Esperanza	Toa Alta	10/03/2025	\$3,548,525.00	Aqueduct Systems
CIP.2709010	Mejoras a sistema Alc Teefrans, Arecibo (FAAST)	Arecibo	06/26/2025	\$9,170,128.00	Sanitary Sewer Systems
CIP.2725017	Elimination of PF Sabana Grande	Utuado	08/15/2029	\$8,300,000.00	WTP: Existing Facility
CIP.2736005	Rehabilitación de la PF Mameyes Limón (Arriba) y la Toma (FAAST)	Utuado	01/31/2030	\$20,159,120.00	WTP: Existing Facility
CIP.2736006	Rehabilitación de la PF Mameyes Utuado y la Toma (FAAST)	Utuado	10/15/2029	\$11,427,268.00	WTP: Existing Facility
CIP.2739001	Mejoras a la Toma de Aguas Crudas del Lago Viví (FAAST)	Utuado	08/03/2026	\$7,244,094.00	WTP: Existing Facility
CIP.2755016	PF Rehabilitación Almirante Sur Vega Baja	Vega Baja	04/15/2029	\$8,300,000.00	WTP: Existing Facility
CIP.2755055	Rehabilitation of Sanitary Trunk Sewer Vega Baja (FAAST)	Vega Baja	11/17/2025	\$10,415,525.00	Sanitary Sewer Systems

Appendix D
North Region CIP Projects

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.2755056	Completion of Sandin Sanitary Sewer System	Vega Baja	08/15/2028	\$21,258,265.00	Sanitary Sewer Systems
CIP.4556009	Rehabilitación de la PF Sanamuertos (FAAST)	Orocovis	10/13/2028	\$20,928,600.00	WTP: Existing Facility
CIP.6009012	PRASA Automation Isla (FAAST) - North Region	Toa Alta	04/15/2027	\$2,500,000.00	Other Projects (Water and Sewer)
CIP.7349002	Hatillo - Nuevo Sistema de Distribución de Agua Barrio Campo Alegre, Sectores 10 (FAAST)	Hatillo	10/20/2026	\$10,286,276.00	Aqueduct Systems

Appendix E

South Region CIP Projects

Appendix E

South Region CIP Projects

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0800074S	EBAS Coamo Main - Emergency Generators - Phase 2 South	Coamo	08/22/2025	\$513,232.00	Generators
CIP.0800074S	EBAS Orocovis Main - Emergency Generators - Phase 2 South	Orocovis	06/03/2025	\$197,478.00	Generators
CIP.0800074S	PAS Orocovis - Emergency Generators - Phase 2 South	Orocovis	08/22/2025	\$442,431.00	Generators
CIP.0800074S	EB Barros - Emergency Generators - Phase 2 South	Orocovis	12/19/2025	\$294,391.00	Generators
CIP.0800074S	EBAS Barros 1 - Emergency Generators - Phase 2 South	Orocovis	06/03/2025	\$265,761.00	Generators
CIP.0800074S	EBAS Barros 2 - Emergency Generators - Phase 2 South	Orocovis	06/03/2025	\$231,182.00	Generators
CIP.0800074S	EBAS Las 80 - Emergency Generators - Phase 2 South	Salinas	06/03/2025	\$203,569.00	Generators
CIP.0800074S	EBAS La Margarita - Emergency Generators - Phase 2 South	Salinas	08/22/2025	\$257,899.00	Generators
CIP.0800074S	Pozo Texidor - Emergency Generators - Phase 2 South	Salinas	06/03/2025	\$339,819.00	Generators
CIP.0800074S	Pozo Villodas - Emergency Generators - Phase 2 South	Guayama	12/19/2025	\$289,956.00	Generators
CIP.0800074S	PAS Guayama - Emergency Generators - Phase 2 South	Guayama	08/22/2025	\$742,548.00	Generators
CIP.0800074S	PF Guayama - Emergency Generators - Phase 2 South	Guayama	06/03/2025	\$391,232.00	Generators
CIP.0800074S	EB Rexmanor - Emergency Generators - Phase 2 South	Guayama	11/28/2025	\$1,062,256.00	Generators

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0800074S	EBAS Portal de Ancones - Emergency Generators - Phase 2 South	Arroyo	06/03/2025	\$146,884.00	Generators
CIP.0800074S	PF Patillas - Emergency Generators - Phase 2 South	Patillas	11/15/2024	\$1,072,576.00	Generators
CIP.0800074S	EBAS Talante - Emergency Generators - Phase 2 South	Maunabo	06/03/2025	\$159,539.00	Generators
CIP.0800074S	Represa Lizas - Emergency Generators - Phase 2 South	Maunabo	06/03/2025	\$437,526.00	Generators
CIP.0800074S	PAS Ponce (entrada) - Emergency Generators - Phase 2 South	Ponce	12/19/2025	\$1,920,413.00	Generators
CIP.0800074S	EBAS Carenero - Emergency Generators - Phase 2 South	Ponce	06/03/2025	\$409,471.00	Generators
CIP.0800074S	PAS Adjuntas - Emergency Generators - Phase 2 South	Adjuntas	08/22/2025	\$354,636.00	Generators
CIP.0800074S	EBAS San Joaquin - Emergency Generators - Phase 2 South	Adjuntas	06/03/2025	\$299,492.00	Generators
CIP.0800074S	EBAS Guayabal II - Emergency Generators - Phase 2 South	Juana Díaz	12/19/2025	\$234,192.00	Generators
CIP.0800074S	EBAS Malecón - Emergency Generators - Phase 2 South	Guánica	12/19/2025	\$348,978.00	Generators
CIP.0800074S	Pozo Sitios - Emergency Generators - Phase 2 South	Guayanilla	12/19/2025	\$315,542.00	Generators
CIP.0800074S	Pozo Deportivo - Emergency Generators - Phase 2 South	Guayanilla	12/13/2024	\$301,581.00	Generators

Appendix E
South Region CIP Projects

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0801002S	PZ Magueyez - Emergency Generators - Phase 3 South	Guánica	03/01/2024	\$151,016.00	Generators
CIP.0801002S	EB Hill View - Emergency Generators - Phase 3 South	Yauco	03/04/2024	\$135,101.00	Generators
CIP.0801002S	EB La Luna - Emergency Generators - Phase 3 South	Guánica	05/24/2024	\$223,188.00	Generators
CIP.0801002S	EB Brisas del Caribe I - Emergency Generators - Phase 3 South	Ponce	02/26/2024	\$172,301.00	Generators
CIP.0801002S	EB Brisas del Caribe II - Emergency Generators - Phase 3 South	Ponce	02/28/2024	\$139,800.00	Generators
CIP.0801002S	EB TK Villa Paraíso - Emergency Generators - Phase 3 South	Ponce	02/19/2024	\$163,241.00	Generators
CIP.0801002S	EB Sabanetas - Emergency Generators - Phase 3 South	Ponce	04/18/2024	\$161,155.00	Generators
CIP.0801002S	EB TK Campo Alegre - Emergency Generators - Phase 3 South	Ponce	03/11/2024	\$198,209.00	Generators
CIP.0801002S	EB Aceitunas II - Emergency Generators - Phase 3 South	Villalba	02/16/2024	\$308,096.00	Generators
CIP.0801002S	EB Aceitunas III - Emergency Generators - Phase 3 South	Villalba	02/20/2024	\$281,999.00	Generators

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0801002S	EB Aceitunas IV - Emergency Generators - Phase 3 South	Villalba	02/22/2024	\$307,940.00	Generators
CIP.0801002S	PZ Dayan - Emergency Generators - Phase 3 South	Juana Díaz	03/06/2024	\$176,327.00	Generators
CIP.0801002S	EB TK Niagara - Emergency Generators - Phase 3 South	Coamo	03/13/2024	\$216,229.00	Generators
CIP.0801002S	EB TK Villa Madrid - Emergency Generators - Phase 3 South	Coamo	03/14/2024	\$201,953.00	Generators
CIP.0801003S	EBAS Jagueyes - D&B Emergency Generators - Phase 4 South	Villalba	05/29/2026	\$500,000.00	Generators
CIP.3305001	Improvements to Guayama Wastewater Treatment Plant	Guayama	10/30/2026	\$97,836,624.00	WWTP: Existing Facility
CIP.3565001	Patillas - Guayama Trunk Sewer	Patillas	03/25/2027	\$47,626,210.00	Sanitary Sewer Systems
CIP.4009000	Bauta Tunnel	Villalba	12/10/2030	\$250,000,000.00	Supplies ("Abastos")
CIP.4009001	Tanque Egozque - Rehabilitación de Tanques Fase 1 - Sur (FAAST)	Patillas	02/13/2024	\$481,422.00	Tank
CIP.4009001	Tanque Vertero - Rehabilitación de Tanques Fase 1 - Sur (FAAST)	Salinas	02/13/2024	\$481,422.00	Tank
CIP.4009001	Tanque Los Cocos - Rehabilitación de Tanques Fase 1 - Sur (FAAST)	Salinas	02/13/2024	\$481,422.00	Tank
CIP.4009001	Tanque San Miguel - Rehabilitación de Tanques Fase 1 - Sur (FAAST)	Orocovis	02/13/2024	\$481,422.00	Tank

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.4009001	Tanque Ollas - Rehabilitación de Tanques Fase 1 - Sur (FAASt)	Santa Isabel	02/13/2024	\$481,422.00	Tank
CIP.4009001	Tanque Hatillo - Rehabilitación de Tanques Fase 1 - Sur (FAASt)	Villalba	02/13/2024	\$481,422.00	Tank
CIP.4009001	Tanque Calichoza - Rehabilitación de Tanques Fase 1 - Sur (FAASt)	Peñuelas	02/13/2024	\$481,422.00	Tank
CIP.4009001	Tanque Santo Domingo - Rehabilitación de Tanques Fase 1 - Sur (FAASt)	Peñuelas	02/13/2024	\$481,422.00	Tank
CIP.4009001	Tanque Isleta II - Rehabilitación de Tanques Fase 1 - Sur (FAASt)	Yauco	02/13/2024	\$381,422.00	Tank
CIP.4009001	Tanque Las Cruces - Rehabilitación de Tanques Fase 1 - Sur (FAASt)	Yauco	02/13/2024	\$581,422.00	Tank
CIP.4009006	D&B Emergency Generators – Wastewater - South Region - Phase V	Ponce	02/20/2028	\$7,000,000.00	Generators
CIP.4009007	D&B Emergency Generators - Drinking Water - South Region - Phase V	Ponce	02/20/2028	\$4,000,000.00	Generators
CIP.4009103	EBTK Palmas 1 - Rehabilitación de Estaciones de Bomba Fase 1 - Sur (FAASt)	Guayama	07/29/2026	\$2,093,213.00	Water Pump Station
CIP.4009103	EB Booster Paso Seco - Rehabilitación de Estaciones de Bomba Fase 1 - Sur (FAASt)	Santa Isabel	07/29/2026	\$2,093,213.00	Water Pump Station
CIP.4009103	EB Lucas Vélez - Rehabilitación de Estaciones de Bomba Fase 1 - Sur (FAASt)	Ponce	07/29/2026	\$2,093,213.00	Water Pump Station
CIP.4009103	EB La Linterna - Rehabilitación de Estaciones de Bomba Fase 1 - Sur (FAASt)	Yauco	07/29/2026	\$2,093,213.00	Water Pump Station

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.4009104	Rehabilitación EBAS Fase 1 - Sur (FAASt)	Ponce	03/20/2028	\$11,416,102.00	Wastewater Pump Station
CIP.4009106	Pozo Altos de la Bandera - Rehabilitación de Pozos Fase 1 - Sur (FAASt)	Adjuntas	03/31/2026	\$930,000.00	Well
CIP.4009106	Pozo Arjona - Rehabilitación de Pozos Fase 1 - Sur (FAASt)	Ponce	03/31/2026	\$1,128,036.00	Well
CIP.4009106	Pozo Viejo de Guánica - Rehabilitación de Pozos Fase 1 - Sur (FAASt)	Guánica	03/31/2026	\$1,052,038.00	Well
CIP.4009106	Pozo Playita Cortada - Rehabilitación de Pozos Fase 1 - Sur (FAASt)	Santa Isabel	03/31/2026	\$1,065,138.00	Well
CIP.4009106	Pozo Villodas - Rehabilitación de Pozos Fase 1 - Sur (FAASt)	Guayama	03/31/2026	\$1,021,140.00	Well
CIP.4016012	Rehabilitación de la PF Guilarte (FAASt)	Adjuntas	06/25/2028	\$9,044,687.00	WTP: Existing Facility
CIP.4080001	Design and build for the improvements to Texaco Well and Rexmanor pump station Arroyo and Guayama, Puerto Rico	Arroyo	11/29/2022	\$454,151.00	Buildings/Infrastructure
CIP.4085002	Improvements to the Arroyo sanitary PS	Arroyo	11/28/2025	\$19,678,451.00	Wastewater Pump Station
CIP.4089000	Design and build for the rehabilitation of the Arroyo-Guayama Trunk Sewer (FAASt)	Guayama	12/12/2024	\$23,021,961.00	Sanitary Sewer Systems
CIP.4089001	NRW- Renovación Tubería AP Sector Buena Vista (FAASt)	Arroyo	08/30/2027	\$2,368,117.00	Aqueduct Systems
CIP.4229003	NRW- Renovación Tubería AP PR-155 Sector Farallones (FAASt)	Coamo	08/30/2027	\$3,113,339.00	Aqueduct Systems

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.4229004	NRW- Renovación Tubería AP PR-150 Santa Catalina y San Idelfonso (FAAST)	Coamo	08/30/2027	\$4,431,075.00	Aqueduct Systems
CIP.4295033	Reconstruction of structures in Guánica WWTP (Terremotos)	Guánica	09/01/2023	\$1,227,347.00	WWTP: Existing Facility
CIP.4296001	Relocation of Monte Pelao Tank Pump Station (Terremotos)	Guánica	02/27/2024	\$3,154,844.00	Water Pump Station
CIP.4299000	Rehabilitación de varios segmentos Sistema A/S Barriada La Esperanza, Guánica (FAAST)	Guánica	02/15/2028	\$8,797,783.00	Sanitary Sewer Systems
CIP.4300002	Improvements to Guayama WTP	Guayama	12/19/2022	\$520,690.00	Buildings/Infrastructure
CIP.4305017	Rehabilitation of Punta Pozuelo Sanitary Sewer Pump Station	Guayama	12/27/2027	\$2,015,000.00	Wastewater Pump Station
CIP.4306006	Replacement of Raw Water Pipeline from Penstock Carite III to Guayama WFP	Guayama	04/21/2026	\$6,682,273.00	Supplies ("Abastos")
CIP.4306007	Construction of Bridge Structure to support 48in pipe	Guayama	02/06/2024	\$6,905,634.00	Other Projects (Water and Sewer)
CIP.4316007	Rehabilitación de la PF Jagua Pasto (FAAST)	Guayanilla	07/20/2027	\$16,310,853.00	WTP: Existing Facility
CIP.4319001	NRW- Renovación Tubería AP PR-335 Bo. Indios (FAAST)	Guayanilla	08/30/2027	\$3,612,870.00	Aqueduct Systems
CIP.4395061	Sanitary Sewer System for Lago Horizonte Community	Juana Díaz	04/29/2024	\$8,626,893.00	Sanitary Sewer Systems
CIP.4399000	NRW- Renovación tubería AP Sector Collores PR 512 (FAAST)	Juana Díaz	08/30/2027	\$2,229,145.00	Aqueduct Systems

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.4495001	Eliminación de PAS Maunabo y Construcción de nueva troncal Maunabo-Patillas (FAASt)	Maunabo	10/26/2029	\$25,000,000.00	WWTP: Existing Facility
CIP.4550001	Design and Build for the improvements to Villa Cooperativa Sanitary Sewer Pump Station	Orocovis	06/22/2022	\$714,199.00	Wastewater Pump Station
CIP.4555016	Diseño y Construcción Estación de Bombas San Miguel (Proyecto de Emergencia)	Orocovis	10/11/2024	\$1,942,944.00	Water Pump Station
CIP.4559001	Design and Build for the construction of a retaining wall in Saltos IV Tank and pump station	Orocovis	11/18/2022	\$323,563.00	Water Pump Station
CIP.4559002	Renovación de Tubería de Agua Potable en Sector El Gato (FAASt)	Orocovis	06/23/2025	\$2,854,383.00	Aqueduct Systems
CIP.4575005	Mejoras a la PAS Peñuelas	Peñuelas	02/03/2027	\$20,917,754.00	WWTP: Existing Facility
CIP.4576002	Rehabilitación de la PF Peñuelas (FAASt)	Peñuelas	04/30/2028	\$19,435,009.00	WTP: Existing Facility
CIP.4576004	Rehabilitación de la PF Malpaso LT2	Peñuelas	04/30/2027	\$16,346,904.00	WTP: Existing Facility
CIP.4576006	Improvements to structures in Jaguas Ceiba WFP	Peñuelas	06/05/2023	\$1,150,684.00	WTP: Existing Facility
CIP.4579001	Improvements to Santo Domingo pump station	Peñuelas	07/05/2022	\$561,353.00	Water Pump Station

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.4585096	Rehabilitación de la PAS Ponce (FAASt)	Ponce	03/30/2029	\$45,000,000.00	WWTP: Existing Facility
CIP.4586006	New Potable water system for Ave. Hostos & Playa de Ponce phase IV-A	Ponce	01/21/2022	\$4,197,958.00	Aqueduct Systems
CIP.4586069	Ponce Nueva WFP Improvements	Ponce	07/16/2024	\$21,859,839.00	WTP: Existing Facility
CIP.4586071	Coto Laurel WFP Improvements	Ponce	06/14/2024	\$15,181,011.00	WTP: Existing Facility
CIP.4586075	Renovación Sistema de Acueductos Ave. Hostos y Playa (Ponce en Marcha Fase 4B)	Ponce	08/27/2027	\$9,772,124.00	Aqueduct Systems
CIP.4586079	Troncal Sanitaria en la Ave. Hostos (Ponce en Marcha Fase 4B)	Ponce	08/27/2027	\$9,774,294.00	Sanitary Sewer Systems
CIP.4589003	D&B for the Ponce Trunk Sewer System Rehabilitation (FAASt)	Ponce	11/16/2026	\$21,346,114.00	Sanitary Sewer Systems
CIP.4589005	Reconstrucción de Facilidades: Comercial Ponce, Pozo Magueyes, El Tuque (Terremotos)	Ponce	01/16/2025	\$727,795.00	Buildings/Infrastructure
CIP.4589006	Renovación de Tubería de Agua Potable en Sector La Yuca (FAASt)	Ponce	03/28/2025	\$2,592,701.00	Aqueduct Systems
CIP.4589007	Renovación de Tubería de Agua Potable en el Sector Sabanetas (FAASt)	Ponce	02/09/2026	\$6,218,305.00	Aqueduct Systems

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.4645001	Rehabilitation of the Salinas-Guayama Sanitary Trunk Sewer, Phase III	Salinas	08/06/2025	\$28,762,987.00	Sanitary Sewer Systems
CIP.4646004	PF Salinas	Salinas	02/25/2029	\$64,464,442.00	WTP: New Facility
CIP.4649000	Reemplazo Sistema Alcantarillado Sanitario y Agua Potable en el Casco Urbano de Salinas (FAASt)	Salinas	05/15/2029	\$12,635,178.00	Sanitary Sewer Systems
CIP.4695042	Santa Isabel Water Resources Recovery Facility (FAASt)	Santa Isabel	04/17/2028	\$75,947,968.00	WWTP: Existing Facility
CIP.4776075	Toa Vaca Water Treatment plant new pre-sedimentation tank (project completion)	Villalba	07/05/2022	\$5,520,783.00	WTP: Existing Facility
CIP.4776077	Eliminación de la PF Apeadero y mejoras al sistema de distribución de PF Aceituna (FAASt)	Villalba	01/22/2029	\$21,106,335.00	WTP: Existing Facility
CIP.4776078	Rehabilitation of Jagueyes Water Treatment Plant (FAASt)	Villalba	12/15/2026	\$19,536,000.00	WTP: Existing Facility
CIP.4779001	NRW- Renovación tubería AP Sector Limón (FAASt)	Villalba	08/30/2027	\$3,764,830.00	Aqueduct Systems
CIP.4779002	NRW- Renovación Tubería AP Sector Chichón (FAASt)	Villalba	08/30/2027	\$3,724,916.00	Aqueduct Systems
CIP.4795006	Diseño y Construcción de Pozo Cruzadas y Mejoras a Tanque Piazza	Yauco	12/22/2026	\$5,697,500.00	Well
CIP.4795023	Reconstruction of Palomas and Villas del Cafetal WWPS (Terremotos)	Yauco	09/01/2023	\$479,493.00	Wastewater Pump Station

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.4795024	Reconstruction of Structures in Yauco WWTP (Terremotos)	Yauco	09/01/2023	\$1,685,202.00	WWTP: Existing Facility
CIP.4796004	Rehabilitación de la PF Río Prieto (FAAST)	Yauco	11/19/2029	\$15,000,000.00	WTP: Existing Facility
CIP.4796006	Replacement of Potable waterlines at PR-127 Luchetti Bridge (Terremotos)	Yauco	09/01/2023	\$784,146.00	Aqueduct Systems
CIP.4797005	Toma de Aguas Crudas PF Río Prieto (FAAST)	Yauco	06/18/2029	\$10,654,167.00	Supplies ("Abastos")
CIP.7776071	Toa Vaca Dam Rehabilitation (FAAST)	Villalba	07/14/2027	\$7,175,120.00	Supplies ("Abastos")
REN.4322134	Design and Build for the Improvements to the Grit Removal System and Influent Channels of the Guánica WWTP (CIP.0998022)	Guánica	04/30/2024	\$1,671,000.00	Aqueduct Systems
CIP.0800074S	EBAS Coamo Main - Emergency Generators - Phase 2 South	Coamo	08/22/2025	\$513,232.00	Generators
CIP.0800074S	EBAS Orocovi Main - Emergency Generators - Phase 2 South	Orocovi	06/03/2025	\$197,478.00	Generators
CIP.0800074S	PAS Orocovi - Emergency Generators - Phase 2 South	Orocovi	08/22/2025	\$442,431.00	Generators
CIP.0800074S	EB Barros - Emergency Generators - Phase 2 South	Orocovi	12/19/2025	\$294,391.00	Generators
CIP.0800074S	EBAS Barros 1 - Emergency Generators - Phase 2 South	Orocovi	06/03/2025	\$265,761.00	Generators
CIP.0800074S	EBAS Barros 2 - Emergency Generators - Phase 2 South	Orocovi	06/03/2025	\$231,182.00	Generators

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0800074S	EBAS Las 80 - Emergency Generators - Phase 2 South	Salinas	06/03/2025	\$203,569.00	Generators
CIP.0800074S	EBAS La Margarita - Emergency Generators - Phase 2 South	Salinas	08/22/2025	\$257,899.00	Generators
CIP.0800074S	Pozo Texidor - Emergency Generators - Phase 2 South	Salinas	06/03/2025	\$339,819.00	Generators
CIP.0800074S	Pozo Villodas - Emergency Generators - Phase 2 South	Guayama	12/19/2025	\$289,956.00	Generators
CIP.0800074S	PAS Guayama - Emergency Generators - Phase 2 South	Guayama	08/22/2025	\$742,548.00	Generators
CIP.0800074S	PF Guayama - Emergency Generators - Phase 2 South	Guayama	06/03/2025	\$391,232.00	Generators
CIP.0800074S	EB Rexmanor - Emergency Generators - Phase 2 South	Guayama	11/28/2025	\$1,062,256.00	Generators
CIP.0800074S	EBAS Portal de Ancones - Emergency Generators - Phase 2 South	Arroyo	06/03/2025	\$146,884.00	Generators
CIP.0800074S	PF Patillas - Emergency Generators - Phase 2 South	Patillas	11/15/2024	\$1,072,576.00	Generators
CIP.0800074S	EBAS Talante - Emergency Generators - Phase 2 South	Maunabo	06/03/2025	\$159,539.00	Generators
CIP.0800074S	Represa Lizas - Emergency Generators - Phase 2 South	Maunabo	06/03/2025	\$437,526.00	Generators
CIP.0800074S	PAS Ponce (entrada) - Emergency Generators - Phase 2 South	Ponce	12/19/2025	\$1,920,413.00	Generators
CIP.0800074S	EBAS Carenero - Emergency Generators - Phase 2 South	Ponce	06/03/2025	\$409,471.00	Generators

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East Region CIP Projects

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East Region CIP Projects

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.3139002	Design and Build for the Rehabilitation of Caguas Trunk Sewer (FAAST)	Caguas	06/30/2026	\$35,715,288.61	Wastewater
CIP.3536006	Rehabilitación de la PF Río Blanco (FAAST)	Naguabo	06/30/2028	\$66,514,007.13	Potable Water
CIP.3769000	Relocalización Tubería 12" Sistema Distribución Agua Potable Vieques Suplido	Vieques	03/28/2025	\$6,802,435.00	Potable Water
CIP.3136012	Rehabilitación de la PF Caguas Norte (FAAST)	Caguas	01/15/2029	\$109,871,885.89	Potable Water
CIP.3186003	Rehabilitation of Farallón WTP and Raw Water Intake (FAAST)	Cayey	03/15/2028	\$37,181,673.05	Potable Water
CIP.3135065	Troncal Sanitaria Aguas Buenas - Caguas Fase III	Caguas	02/28/2028	\$27,327,000.00	Wastewater
CIP.3156093	Improvements to El Yunque WTP (FAAST)	Río Grande	06/15/2028	\$60,724,686.00	Potable Water
CIP.3216064	Termination of Lago Cidra Dam Rehabilitation	Cidra	06/06/2024	\$5,533,305.00	Potable Water
CIP.3275042	Design and Build for the Termination of Las Croabas Sanitary Sewer System	Fajardo	05/27/2024	\$7,707,516.51	Wastewater
CIP.3365083	Improvements to the Humacao wastewater treatment plant STS	Humacao	09/16/2024	\$13,268,683.91	Wastewater
CIP.3406003	Terminación PF Valenciano	Juncos	08/26/2027	\$90,615,311.62	Potable Water
CIP.3676001	Improvements to Cerro Gordo WFP STS (SRF)	San Lorenzo	10/31/2024	\$9,830,404.00	Potable Water
CIP.3765002	Mejoras PAS Vieques (FAAST)	Vieques	09/03/2027	\$60,970,385.09	Wastewater
CIP.3056005	Mejoras al Sistema de Distribución de Agua Potable de Aibonito	Aibonito	06/22/2026	\$6,659,618.08	Potable Water

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.3139001	Mejoras PAS Caguas (FAAST)	Caguas	11/23/2029	\$110,000,000.00	Wastewater
CIP.3449000	Design and Build for the improvements to the sanitary sewer system on road PR-9922	Las Piedras	04/04/2024	\$2,469,112.63	Wastewater
CIP.3789000	Reemplazo de Tubería de 8" del Sistema Camino Nuevo, PR-901	Yabucoa	06/25/2025	\$3,839,797.00	Renewal & Replacement
CIP.3127005	Design and Build for the Ceiba Norte and Gurabo Abajo Sanitary Sewer System (ARPA)	Juncos	02/20/2024	\$1,408,978.00	Wastewater
CIP.3156094	Nueva Toma para la PF Yunque (Mameyes) (FAAST)	Río Grande	01/15/2029	\$29,126,376.79	Potable Water
CIP.3187000	Mejoras al Sistema Potable Water de los Sectores La Piedra y Pasto Viejo	Cayey	06/30/2027	\$14,545,224.17	Potable Water
CIP.3188001	Rehabilitation of the Cayey Operations Area Offices (FAAST)	Cayey	12/31/2025	\$2,546,317.88	Buildings/Infrastructure
CIP.3277001	Mejoras al Sistema Sanitario de la Urb. Santa Rita	Fajardo	09/24/2026	\$9,158,744.28	Wastewater
CIP.3106106	Rehabilitación de la PF Barrancas y la Toma (FAAST)	Barranquitas	03/15/2028	\$20,000,000.00	Potable Water
CIP.3239001	Mejoras al Sistema de Distribución - Tanque de Comerio (2 millones)	Comerio	11/12/2027	\$12,968,582.95	Potable Water
CIP.3009001	Tanque Bayamoncito - Rehabilitación de Tanques Fase 1 - Este (FAAST)	Cidra	10/31/2025	\$800,048.64	Potable Water
CIP.3009001	Tanque La Barbera - Rehabilitación de Tanques Fase 1 - Este (FAAST)	Humacao	10/31/2025	\$760,845.76	Potable Water
CIP.3009001	Tanque Pasto Viejo - Rehabilitación de Tanques Fase 1 - Este (FAAST)	Humacao	10/31/2025	\$760,670.77	Potable Water

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CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.3009001	Tanque El Retiro - Rehabilitación de Tanques Fase 1 - Este (FAAST)	Humacao	10/31/2025	\$860,933.00	Potable Water
CIP.3009001	Tanque Las Colinas - Rehabilitación de Tanques Fase 1 - Este (FAAST)	Luquillo	10/31/2025	\$850,927.46	Potable Water
CIP.3009001	Tanque Quebrada - Rehabilitación de Tanques Fase 1 - Este (FAAST)	San Lorenzo	10/31/2025	\$629,101.00	Potable Water
CIP.3009103	EB Cementerio - Rehabilitación de Estaciones de Bomba Fase 1- Este (FAAST)	Juncos	03/13/2026	\$1,586,163.58	Potable Water
CIP.3009103	EBTK Quintas de San Luis - Rehabilitación de Estaciones de Bomba Fase 1- Este (FAAST)	Caguas	03/13/2026	\$1,586,163.58	Potable Water
CIP.3009103	EB Cejas 4 - Rehabilitación de Estaciones de Bomba Fase 1- Este (FAAST)	Comerio	03/13/2026	\$1,586,163.58	Potable Water
CIP.3009103	EB La Plata II (Hoya Oscura) - Rehabilitación de Estaciones de Bomba Fase 1- Este (FAAST)	Aibonito	03/13/2026	\$1,586,163.58	Potable Water
CIP.3009103	EB La Plata III (El Indio) - Rehabilitación de Estaciones de Bomba Fase 1- Este (FAAST)	Aibonito	03/13/2026	\$1,586,163.58	Potable Water
CIP.3009106	Pozo El Verde - Rehabilitación de Pozos Fase 1 - Este (FAAST)	Comerio	04/14/2025	\$566,765.90	Potable Water
CIP.3009106	Pozo Pasto Viejo Nuevo - Rehabilitación de Pozos Fase 1 - Este (FAAST)	Cayey	04/14/2025	\$566,765.90	Potable Water
CIP.3009106	Pozo Bauzá - Rehabilitación de Pozos Fase 1 - Este (FAAST)	Aibonito	04/14/2025	\$566,765.90	Potable Water

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.3009106	Pozo Laura - Rehabilitación de Pozos Fase 1 - Este (FAAST)	Yabucoa	04/14/2025	\$566,765.90	Potable Water
CIP.3009106	Pozo Voluntario - Rehabilitación de Pozos Fase 1 - Este (FAAST)	Yabucoa	04/14/2025	\$566,765.90	Potable Water
CIP.3195015	Rehabilitación de la Estación de Bombas Wastewater Haciendas Las Lomas	Ceiba	12/20/2024	\$1,896,840.81	Wastewater
CIP.0800074E	EBAS San Antonio - Emergency Generators - Phase 2 East	Aguas Buenas	07/23/2024	\$290,516.87	Generators
CIP.0800074E	EBAS Vistas de Jagueyes - Emergency Generators - Phase 2 East	Aguas Buenas	08/30/2024	\$228,557.19	Generators
CIP.0800074E	EBAS La Serranía - Emergency Generators - Phase 2 East	Caguas	07/24/2024	\$345,724.01	Generators
CIP.0800074E	EBAS Quintas de San Luis - Emergency Generators - Phase 2 East	Caguas	09/23/2024	\$288,272.16	Generators
CIP.0800074E	Represa Borinquen - Emergency Generators - Phase 2 East	Caguas	09/24/2024	\$586,541.86	Generators
CIP.0800074E	PF Jagual - Emergency Generators - Phase 2 East	San Lorenzo	09/18/2024	\$299,935.79	Generators
CIP.0800074E	EBAS Matón 1 - Emergency Generators - Phase 2 East	Cayey	10/15/2024	\$201,844.46	Generators
CIP.0800074E	EBAS Consolidated - Emergency Generators - Phase 2 East	Cayey	09/25/2024	\$278,678.45	Generators
CIP.0800074E	EBAS Treasure Valley - Emergency Generators - Phase 2 East	Cidra	12/06/2024	\$307,182.05	Generators
CIP.0800074E	PF Cidra - Emergency Generators - Phase 2 East	Cidra	12/06/2024	\$928,641.79	Generators

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CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0800074E	EBAS La Prieta - Emergency Generators - Phase 2 East	Comerio	10/08/2024	\$168,478.84	Generators
CIP.0800074E	EBAS La Ponderosa - Emergency Generators - Phase 2 East	Río Grande	09/19/2024	\$235,893.92	Generators
CIP.0800074E	EB Río Mar - Emergency Generators - Phase 2 East	Río Grande	09/26/2024	\$322,708.00	Generators
CIP.0800074E	EBAS Brisas del Mar - Emergency Generators - Phase 2 East	Luquillo	12/06/2024	\$256,004.37	Generators
CIP.0800074E	EB 1 Millón Rincón - Emergency Generators - Phase 2 East	Ceiba	07/31/2024	\$415,879.05	Generators
CIP.0800074E	EBAS Palma Royal - Emergency Generators - Phase 2 East	Las Piedras	06/30/2024	\$227,713.89	Generators
CIP.0800074E	Represa Cuesta Los Jobos - Emergency Generators - Phase 2 East	Las Piedras	09/27/2024	\$570,618.79	Generators
CIP.0800074E	EBAS Jardin Central - Emergency Generators - Phase 2 East	Humacao	08/20/2024	\$268,706.02	Generators
CIP.0800074E	Represa Central Roig - Emergency Generators - Phase 2 East	Yabucoa	12/06/2024	\$526,311.72	Generators
CIP.0800074E	PAS Yabucoa - Emergency Generators - Phase 2 East	Yabucoa	09/06/2024	\$670,145.27	Generators
CIP.0800074E	EBAS Ramón Rivera Diplo - Emergency Generators - Phase 2 East	Naguabo	09/17/2024	\$293,077.44	Generators
CIP.0801002E	EB Aguas Crudras Culebras 2da - Emergency Generators - Phase 3 East	Cayey	05/10/2024	\$180,574.25	Generators
CIP.0801002E	EB Aguas Crudras Culebras 3ra - Emergency Generators - Phase 3 East	Cayey	05/10/2024	\$185,311.10	Generators
CIP.0801002E	RP Culebras - Emergency Generators - Phase 3 East	Cayey	05/15/2024	\$186,660.04	Generators

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East Region CIP Projects

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0801002E	EB La Plata Etapa 3 - Emergency Generators - Phase 3 East	Aibonito	09/20/2024	\$282,876.37	Generators
CIP.0801002E	EB Doña Elena 5 - Emergency Generators - Phase 3 East	Comerio	06/14/2024	\$195,782.04	Generators
CIP.0801002E	EB Doña Elena 1 - Emergency Generators - Phase 3 East	Comerio	06/14/2024	\$200,718.50	Generators
CIP.0801002E	RP Comerío - Emergency Generators - Phase 3 East	Comerio	05/26/2025	\$203,691.54	Generators
CIP.0801002E	TK INT Las Bocas - Emergency Generators - Phase 3 East	Barranquitas	05/31/2024	\$235,925.11	Generators
CIP.0801002E	EBAS Santa Bárbara - Emergency Generators - Phase 3 East	Caguas	05/26/2025	\$238,469.25	Generators
CIP.0801002E	PF Espino - Emergency Generators - Phase 3 East	San Lorenzo	11/22/2024	\$197,064.08	Generators
CIP.0801002E	PF Minillas - Emergency Generators - Phase 3 East	Aguas Buenas	05/26/2025	\$418,525.32	Generators
CIP.0801002E	EBAS La Sabana - Emergency Generators - Phase 3 East	Las Piedras	10/31/2024	\$282,260.03	Generators
CIP.0801002E	EBAS Pueblito del Río - Emergency Generators - Phase 3 East	Las Piedras	04/24/2024	\$194,000.27	Generators
CIP.0801002E	EB TK Cotto Mabu - Emergency Generators - Phase 3 East	Las Piedras	05/26/2025	\$531,353.35	Generators
CIP.0801002E	PF Guayabota - Emergency Generators - Phase 3 East	Yabucoa	04/26/2024	\$193,085.68	Generators
CIP.0801002E	EBAS Tejas Trinidad - Emergency Generators - Phase 3 East	Yabucoa	05/03/2024	\$209,357.33	Generators
CIP.0801002E	RP Guayanés - Emergency Generators - Phase 3 East	Yabucoa	05/03/2024	\$271,069.31	Generators

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0801002E	EBAS Río Grande Main - Emergency Generators - Phase 3 East	Río Grande	05/31/2024	\$238,023.12	Generators
CIP.3679003	D&B Reemplazo de Módulos de Filtración de Planta de Filtración Jagual	San Lorenzo	08/25/2026	\$11,765,171.00	Potable Water
CIP.3679005	Nueva PF, Bo. Espino, San Lorenzo	San Lorenzo	09/17/2029	\$109,375,586.00	Potable Water
CIP.3159000	Las Picuas WWTP Elimination	Río Grande	03/06/2028	\$12,788,892.00	Wastewater
CIP.3009104	Rehabilitación EBAS Fase 1 - Este (FAAST)	Naguabo	01/20/2028	\$8,103,746.00	Wastewater
CIP.3009103	EB Piedras Blancas - Rehabilitación de Estaciones de Bomba Fase 1- Este (FAAST)	Guaynabo	03/13/2026	\$1,586,163.58	Potable Water
CIP.3106105	Rehabilitación de la PF Las Bocas y la Toma (FAAST)	Barranquitas	10/08/2028	\$20,000,000.00	Potable Water
CIP.3139004	Extensión al Sistema de Potable Water de Mulas Tizas (FAAST)	Aguas Buenas	03/04/2026	\$5,989,000.00	Potable Water
CIP.0801003E	EBAS JOSE MERCADO II-D&B Emergency Generators - Phase 4 East	Caguas	10/26/2026	\$381,188.35	Generators
CIP.3046007	NRW- D/B 4" PVC Pipe Replacement Sumidero, La Vega Frente a Xanadu (PR-173 Int) (FAAST)	Aguas Buenas	12/16/2025	\$1,018,951.72	Renewal & Replacement
CIP.3136015	NRW - D/B 4" PVC Pipe Replacement Urb. Bairoa Park, entre las calles 17, 19 y 29 de Bairoa Park (FAAST)	Caguas	12/16/2025	\$4,006,768.76	Renewal & Replacement
CIP.3185018	NRW D/B- 4" DI Pipe Replacement Calle Jorge Roche Maton Arriba (FAAST)	Cayey	12/16/2025	\$1,009,477.94	Renewal & Replacement
CIP.3185019	NRW- D/B-6" DI Pipe Replacement PR-1 Km 6.1 (FAAST)	Cayey	12/16/2025	\$1,265,303.29	Renewal & Replacement

Appendix F
East Region CIP Projects

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.3279003	NRW D/B-Renovación de tubería de 10" PVC DR-14 agua potable en PR-978 (FAASt)	Ceiba	12/16/2025	\$1,926,192.68	Renewal & Replacement
CIP.3279004	NRW D/B 2" and 4" PVC Pipes Replacement Bo. Volantin (PR-976) (FAASt)	Fajardo	12/16/2025	\$1,341,068.93	Renewal & Replacement
CIP.3279002	NRW- D/B- Renovación de tubería de 4" PVC DR-14 agua potable Barrio Demajagua Camino al Vertedero (FAASt)	Fajardo	12/16/2025	\$1,311,467.75	Renewal & Replacement
CIP.3279001	Rehabilitación Switchgear PAS Fajardo (FAASt)	Fajardo	06/20/2028	\$13,505,946.00	Wastewater
CIP.3335027	Design & Build for the Juncos-Gurabo Sanitary Trunk Sewer Rehabilitation (FIONA-FEMA)	Gurabo	01/26/2026	\$10,750,167.00	Wastewater
CIP.3405005	Valenciano - Expansion Planta	Juncos	03/29/2030	\$75,292,676.00	Potable Water
CIP.3405006	Valenciano - Sistema de Distribución	Juncos	03/29/2030	\$187,656,787.00	Potable Water
CIP.3405007	Valenciano - Represa y Toma	Juncos	11/14/2030	\$225,650,000.00	Potable Water
CIP.3239005	Rehabilitación de PF Comerío (FAASt)	Comerío	03/17/2029	\$18,364,035.73	Potable Water
CIP.6000050	D&B for the Advanced Metering Infrastructure Receiving Center Rehabilitation (FAASt)	Juncos	12/05/2025	\$4,758,648.00	Buildings/Infrastructure
CIP.3785018	Rehabilitación de la PAS Yabucoa (FAASt)	Yabucoa	02/11/2029	\$14,000,000.00	Wastewater
CIP.0801003E	PAS COMERÍO -D&B Emergency Generators - East - Phase 4	Comerío	10/26/2026	\$582,354.65	Generators
CIP.0801003E	EBAS VILLA DEL REY I - D&B Emergency Generators - East - Phase 4	Caguas	10/26/2026	\$388,891.27	Generators

Appendix F
East Region CIP Projects

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0801003E	EBAS VILLA DEL REY IV - D&B Emergency Generators - East - Phase 4	Caguas	10/26/2026	\$286,729.15	Generators
CIP.0801003E	EBAS BARRIADA ROOSEVELT - D&B Emergency Generators - East - Phase 4	Caguas	10/26/2026	\$567,190.79	Generators
CIP.0801003E	EBAS EL PORTON - D&B Emergency Generators - East - Phase 4	Barranquitas	10/26/2026	\$293,860.07	Generators
CIP.0801003E	EBAS BRISAS DE CEIBA - D&B Emergency Generators - East - Phase 4	Ceiba	10/26/2026	\$298,762.93	Generators
CIP.0801003E	EBAS LA VEGA - D&B Emergency Generators - East - Phase 4	Ceiba	10/26/2026	\$ 300,784.45	Generators
CIP.0801003E	EBAS COSTA ESMERALDA - D&B Emergency Generators - East - Phase 4	Ceiba	10/26/2026	\$398,693.89	Generators
CIP.0801003E	EBAS CIDRA I - D&B Emergency Generators - East - Phase 4	Cidra	10/26/2026	\$484,317.68	Generators
CIP.0801003E	EBAS RÍO TRONCAL - D&B Emergency Generators - East - Phase 4	Fajardo	10/26/2026	\$1,344,766.12	Generators
CIP.0801003E	EBAS VALLE PIEDRAS - D&B Emergency Generators - East - Phase 4	Las Piedras	10/26/2026	\$255,280.08	Generators
CIP.0801003E	EBAS LOS KIOSKOS - D&B Emergency Generators - East - Phase 4	Luquillo	10/26/2026	\$351,629.48	Generators
CIP.0801003E	EBAS INDUSTRIAL FOMENTO - D&B Emergency Generators - East - Phase 4	Naguabo	10/26/2026	\$255,898.92	Generators
CIP.0801003E	EBAS CASA BELLA - D&B Emergency Generators - East - Phase 4	Naguabo	10/26/2026	\$389,984.95	Generators
CIP.0801003E	EBAS JARDINES DE LA VIA - D&B Emergency Generators - East - Phase 4	Naguabo	10/26/2026	\$255,898.92	Generators

Appendix F
East Region CIP Projects

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.0801003E	EBAS LOS ARBOLES - D&B Emergency Generators - East - Phase 4	Río Grande	10/26/2026	\$255,898.92	Generators
CIP.0801003E	EBAS PLAZA RÍO GRANDE - D&B Emergency Generators - East - Phase 4	Río Grande	10/26/2026	\$293,392.77	Generators
CIP.0801003E	EBAS FLORIDA - D&B Emergency Generators - East - Phase 4	Vieques	10/26/2026	\$495,246.43	Generators
CIP.0801003E	EBAS DR. BERRIOS - D&B Emergency Generators - East - Phase 4	Yabucoa	10/26/2026	\$255,874.53	Generators
CIP.0801003E	EBAS JAIME C. RODRÍGUEZ - D&B Emergency Generators - East - Phase 4	Yabucoa	10/26/2026	\$476,816.65	Generators
CIP.3755016	Vieques Wastewater Treatment Plant - Microgrid	Vieques	10/27/2028	\$20,392,159.00	Potable Water
CIP.3215021	Ciudad Primavera Sanitary Pump Station Improvements and Discharge Relocation	Cidra	01/27/2028	\$6,619,709.00	Wastewater
CIP.3185016	Mejoras Sistema Cercadillo Final	Cayey	08/26/2028	\$4,036,935.00	Potable Water
CIP.3135016	Mejoras al Sistema de Distribución de Agua Potable Piñas 3	Cayey	06/28/2028	\$3,432,440.00	Potable Water
CIP.3535016	Río Blanco Water Treatment Plant - Microgrid	Naguabo	03/31/2029	\$51,812,399.00	Potable Water
CIP.3615016	Mejoras EBAS Río Grande Elderly	Río Grande	03/27/2028	\$4,178,518.00	Wastewater
CIP.3786004	Rehabilitación de la PF Yabucoa - La Pica	Yabucoa	11/29/2028	\$8,300,000.00	Potable Water
CIP.3005019	D&B Emergency Generators - Wastewater - East Region - Phase V	Fajardo	08/15/2028	\$7,000,000.00	Generators
CIP.3005020	D&B Emergency Generators - Drinking Water - East Region - Phase V	Cayey	09/18/2027	\$4,000,000.00	Generators
CIP.3619003	Sistema Sanitario PR-967 Bo. Jiménez	Río Grande	02/28/2028	\$4,250,304.00	Wastewater

Appendix F
East Region CIP Projects

CIP No.	Project Description	Municipality	Construction Completion Date	Total Cost	Type of Project
CIP.3365085	Eliminación EBAS Buxo	Humacao	07/31/2029	\$1,562,392.00	Wastewater
CIP.3445016	Mejoras EBAS Vistas del Río y EBAS Campo Real	Las Piedras	03/15/2030	\$4,495,049.00	Wastewater
CIP.3465016	Mejoras EBAS Kioscos Luquillo	Luquillo	09/26/2028	\$4,242,267.00	Wastewater
CIP.3615017	El Yunque Water Treatment Plan - Microgrid	Río Grande	10/03/2028	\$32,930,724.00	Potable Water
CIP.3615018	Rehabilitación STS PF Morovis	Río Grande	04/15/2029	\$5,800,000.00	Potable Water
CIP.3786003	Rehabilitación de la PF Guayabota y la Toma	Yabucoa	04/15/2029	\$8,300,000.00	Potable Water

Appendix G

PRASA's FY2025 Metro Region Drinking Water Pipe Ruptures

Metro Region Drinking Water Pipe Ruptures

Area	REN Order	Project Description
Bayamón	REN-22225926	Replacement 6ml pota 36 REPAIR Kit Ave 167
Plants	REN-24245026	Replacement 21ml pot 10 DI SACN
Bayamón	REN-22225935	Replacement 6ml Tubería pot 36" Hormigón
Bayamón	REN-22225941	Replacement 6ml pota 36' Rkit carr 167 Rexville
Bayamón	REN-22225942	Replacement 12ml potable 20" DI La Morenita
San Juan	REN-20251854	Replacement 85ml 10 liner Carr 181
Bayamón	REN-22225946	Replacement Tubería 24" RKIT RÍO HONDO

Appendix H

PRASA's FY2025 Metro Region Sanitary Pipe Ruptures

Metro Region Sanitary Pipe Ruptures

Area	REN Order	Project Description
Maintenance	REN-26610116	Replacement 9 ml sant 8" DI EBA Caney
Bayamón	REN-22225932	Replacement 85ml Tubería Sanit 8" PVC SDR-35
Guaynabo	REN-25512041	Replacement 6ml Tubería Sanit 10" PVC sdr-35
Maintenance	REN-26610135	Replacement 18ml sant 4 DI EB ALTO MONTE
San Juan	REN-20251835	Replacement 85ml sant 8 PVCSD Villa Olímpica
San Juan	REN-20251836	Replacement 50ml sant 8 PVCSDR
Bayamón	REN-22225939	Replacement 53ml sant 24 Urb Irlanda Heights
San Juan	REN-20251838	Replacement 55ml sant 10 PVCSDR35 Capetillo
San Juan	REN-20251840	Replacement 6ml sant 8 PVCSDR35 Lino Sgdo Cora
San Juan	REN-20251839	Replacement 300ml sant 18 PVCSDR35 Isabel Cato
Bayamón	REN-22225940	Replacement 6ml sant 24 PVCS35 AVE NOGAL
Maintenance	REN-26610149	Replacement 8ml sant 4 DI EBA EL Coqui
Maintenance	REN-26610148	Replacement 9ml sant 6 DI EBA Las Vegas
Maintenance	REN-26610150	Replacement 9ml sant 6 DI EBA Hillside
San Juan	REN-20251841	Replacement 30ml sant 42 Sant Ave Kennedy
Carolina	REN-23340743	Replacement 70ml sant 10 PVCSDR Villa Coopera
San Juan	REN-20251842	Replacement 50ml sant 8 PVCSDR35 Bo Obrero
San Juan	REN-20251843	Replacement 80ml sant 10 PVCSDR35 Aniceto
Maintenance	REN-26610165	Replacement 9ml sant 4 DI EBA Bayview
Guaynabo	REN-25512043	Replacement 6ml sanitaria 30 PVCSDR35 Amelia
San Juan	REN-20251844	Replacement 85ml sant 12 PVCSD14 San Juan
San Juan	REN-20251846	Replacement 55ml sant 10 PVCSDR35 Calle Hoare
Maintenance	REN-26610172	Replacement Subestación EB Santa Cruz
Bayamón	REN-22225943	Replacement 57ml sant 30 Canton Mall
San Juan	REN-20251850	Replacement 6ml sant 8 DI Urb Colinas Cupey
San Juan	REN-20251847	Replacement 184 ml sant 66" PVCDR35 Kennedy
Carolina	REN-23340745	Replacement 6ml sant 15 PVCSDR35 Carr951
Carolina	REN-23340744	Replacement 6ml sant 14" PVCSDR35 Fidalgo
Carolina	REN-23340748	Replacement 60ml sant 10 LINER Villa Loiza
Carolina	REN-23340749	Replacement 6ml sant 8 PVCDR35 EBA JDN Caroli
Plants	REN-24245073	Replacement 8ml sant 6"Cast IRON PAS PT Nuevo
Bayamón	REN-22225944	Replacement 47ml sant 10 PVCSR35 Aleli

Area	REN Order	Project Description
San Juan	REN-20251849	Replacement 40 mL sant 12 PVCSDR35 F de Juncos
San Juan	REN-20251848	Replacement 70 mL sant 15 PVCSR35 Del Parque
Carolina	REN-23340747	Replacement 7ml sant 8 PVCSDR35 Roberto Cleme
San Juan	REN-20251851	Replacement 30ml sant 8 PVCSDR35 Quisqueya
San Juan	REN-20251852	Replacement 30ml sant 8 PVCSDR35 Madrugada
San Juan	REN-20251853	Replacement 12ml sant 8, 10 PVCSDR35 Sta RITA
San Juan	REN-20251855	Replacement 60ml sant 12 PVCSD14 Sea View
Bayamón	REN-22225945	Replacement 15ml sant 8 PVCSDR35 Valencia
Carolina	REN-23340750	Replacement 6ml sant 8 PVCSDR35 ESCOBAR
Maintenance	REN-26610117	Replacement 9ml sant 8" DI EBA Montebello

Appendix I

North Region Drinking Water Pipe Ruptures

North Region Drinking Water Pipe Ruptures

Municipality	Address	Project Description
Ciales	Bo. Pozas Sector El Puente	Renewal: Improvement to 4” diam deteriorated pipe.
Vega Alta	Calle Azucena #4 Bo. Candelaria Sect Hacienda Campo Nuevo	Renewal 1/2” diam pipe: Improvements to drinking water service
Hatillo	Berrocal Aibonito	Renewal 2” diam pipe: Improvements to drinking water service
Hatillo	Sorondo	Renewal 2” diam pipe: Improvements to drinking water service
Barceloneta	Sabana Pike Carr 664	Renewal 4” diam pipe: Rupture
Ciales	Calle Palmer	Renewal: Improvements to drinking water pipe 2” diam
Manatí	Calle Cerro Vendig 4	Renewal 1/2” diam pipe: Improvements to drinking water service
Barceloneta	Sabana Pike Carr 664	Renewal 2” diam pipe: Improvements to drinking water service
Ciales	Cialitos Las Cañas	Renewal 4” diam pipe: Improvements to drinking water service
Toa Alta	Sector Marzan Carr 823 Km 0.5	Renewal 1/2” diam pipe
Vega Alta	Carr 675 Km 1.0	Renewal 3/4” diam pipe
Corozal	Sector Rolo Barrera, Km 4.3 Carr 818	Renewal 2” diam pipe
Ciales	Bo. Pozas Sector El Puente	Renewal: Improvement to 4” diam deteriorated pipe.
Ciales	Bo. Pozas Sector El Puente	Renewal: Improvement to 4” diam deteriorated pipe.
Ciales	Bo. Pozas Sector El Puente	Renewal: Improvement to 4” diam deteriorated pipe.
Vega Baja	Reparto Sobrino	Renewal 2” diam pipe: Low-pressure issues
Vega Alta	Carr #2 Km 28.8 Bo. Espinosa	Renewal 8” diam pipe: Improvements to drinking water service
Toa Alta	Sector Los Hoyos 88A Km 16.0 Carr 165	Renewal 4” diam pipe: Improvements to drinking water service
Naranjito	Sector Negrón Km 1.5 Carr 164	Renewal 1/2” diam pipe: Improvements to drinking water service
Toa Alta	Parc 238 Carr. 165	Renewal 1/2” diam pipe: Improvements to drinking water service
Toa Alta	Sector El Cuco Carr. 825 Km 6.0	Renewal 2” diam pipe: Improvements to drinking water service
Vega Alta	Sector Santana, Carr 691	Renewal 2” diam pipe: Improvements to drinking water service

Municipality	Address	Project Description
Dorado	Parc. 121-D Carr 2 Calle 2	Renewal 2" diam pipe: Improvements to drinking water service
Dorado	Comunidad Cotto 66 Calle 3	Renewal 1/2" diam pipe: Improvements to drinking water service
Toa Alta	Sector El 7, Carr 827 Km 7.3	Renewal 3/4" diam pipe: Improvements to drinking water service
Toa Alta	Sector El 7, Carr 827 Km 7.3	Renewal 4" diam pipe: Improvements to drinking water service
Toa Alta	Km 2.3 Carr 824 Int 804	Renewal 4" diam pipe: Improvements to drinking water service
Toa Alta	Km 2.3 Carr 824 Int 804	Renewal 4" diam pipe: Improvements to drinking water service
Toa Alta	1B 14 Calle 13	Renewal 1/2" diam pipe: Improvements to drinking water service
Vega Alta	Sector Santana Calle José de Diego Int	Renewal 2" diam pipe: Improvements to drinking water service
Toa Alta	Villa Del Rio 29	Renewal 1/2" diam pipe: Improvements to drinking water service
Ciales	Planta Filtro Ciales Cordillera	Renewal 4" diam pipe: Improvements to drinking water service
Manatí	Bo. Montebello Carr 641 Km 4.6	Repair 2" diam pipe: Improvements to drinking water service
Toa Alta	Carr 804 Km 1 Int	Renewal 2" diam pipe: Improvements to drinking water service
Dorado	F07 Calle Gardenias	Renewal 1/2" diam pipe: Improvements to drinking water service
Dorado	Calle Ricardo Arroyo 836	Renewal 1/2" diam pipe: Improvements to drinking water service
Naranjito	Sector Teleforo Torres Carr 825	Renewal 2" diam pipe: Improvements to drinking water service
Vega Alta	Sector Candungo Carr 675 Km 1.0	Renewal 1/2" diam pipe: Improvements to drinking water service
Jayuya	Urb. Vega Linda Calle Julio	Renewal 2" diam pipe: Improvements to drinking water service
Naranjito	Sector Hevia 56 Carr 167 Km 7.5	Renewal 1/2" diam pipe: Improvements to drinking water service
Toa Alta	Carr 804 Km 1.2	Renewal 1/2" diam pipe: Improvements to drinking water service
Corozal	Carr 818 Km 0.8	Renewal 3/4" diam pipe: Improvements to drinking water service
Toa Alta	K 26 Calle 4 Urb. Toa Alta Heights	Renewal 1/2" diam pipe: Improvements to drinking water service

Municipality	Address	Project Description
Camuy	Puente Carr 119 Km 7.3	Renewal 2” diam pipe: Improvements to drinking water service
Lares	Bo. Espino, Sector Oliver Carr 124, Km 6.4	Renewal 2” diam pipe: Improvements to drinking water service
Morovis	Bo. Morovis Sur Reparto Antonia Peña	Repair pipes leak 2” diam: Improvements to drinking water service
Morovis	Bo. Morovis Sur Reparto Antonia Peña	Repair pipes leak 2” diam: Improvements to drinking water service
Dorado	833 Ricardo Arroyo	Maintenance of 4” diam pipe: Improvements to drinking water service
Naranjito	Sector Otero Bo Guadiana	Maintenance of 1/2” diam pipe: Improvements to drinking water service
Utua	Calle Washington	Renewal 2” diam pipe: Improvements to drinking water service
Barceloneta	Bo. Seboruco	Repair pipes leak 2” diam: Improvements to drinking water service
Vega Baja	Bo. Río Abajo	Renewal 4” diam pipe: Deficient system
Naranjito	Sector. La colina, Carr 164 Km 6.2	Renewal 2” diam pipe: Improvements to drinking water service
Naranjito	Sector Bunker Hills B-9 Carr 164 Km 3.7	Renewal 4” diam pipe: Improvements to drinking water service
Vega Alta	Playa Cerro Gordo Carr 690 Ramal 692	Renewal 2” diam pipe: Improvements to drinking water service
Vega Alta	J 333 Calle 12	Renewal 2” diam pipe: Improvements to drinking water service
Naranjito	Sector La Gallera Carr. 164 Km 3.5	Renewal 4” diam pipe: Improvements to drinking water service
Naranjito	Carr 811	Renewal 2” diam pipe: Improvements to drinking water service
Toa Alta	227 Carr 165 Km 7.1	Renewal 2” diam pipe: Improvements to drinking water service
Utua	Bo. Cayuco Parcelas Nuevas Cerca Del Final	Renewal 1” diam pipe: Improvements to drinking water service
Utua	Jacanas Carr Principal Carr 111 Km 58.2	Renewal 1” diam pipe: Improvements to drinking water service
Utua	Carr 123 Sector Puente Blanco	Renewal 1” diam pipe: Improvements to drinking water service
Utua	Bo. Cayuco Parcelas Nuevas cerca de la final a la derecha	Renewal 1” diam pipe: Improvements to drinking water service
Utua	Calle Ashford frente a Pepe Montero	Renewal 1” diam pipe: Improvements to drinking water service
Manatí	Bo. Montebello – Altos Carr 642 Km 6.6	Repair rupture 2” diam pipe: Improvements to drinking water service

Municipality	Address	Project Description
Manatí	Bo. Montebello – Altos Carr 642 Km 6.6	Repair pipes leak 2” diam pipe: Improvements to drinking water service
Toa Alta	Sector Mucarabones Solar 1, Calle Pablo K	Renewal 2” diam pipe: Improvements to drinking water service
Toa Alta	Km 1.3 Carr 806	Renewal 2” diam pipe: Improvements to drinking water service
Vega Alta	Carr. 677 Km 1.5	Renewal 2” diam pipe: Improvements to drinking water service
Ciales	Sector La Línea Bo Vaga	Renewal 4” diam pipe: Improvements to drinking water service
Naranjito	Carr 8225 Aldea	Renewal 1/2” diam pipe: Improvements to drinking water service
Comerio	Sector Negrón Carr 779 Int Carr 809 Km 5.3	Renewal 2” diam pipe: Improvements to drinking water service
Corozal	Km 6.6 Carr 807, Sector Amado Suárez	Renewal 4” diam pipe: Improvements to drinking water service
Toa Alta	Quebrada Arena Sector Jalda Arriba	Renewal 1/2” diam pipe: Improvements to drinking water service
Camuy	Abra Honda Carr 486 Km 9.3	Renewal 1/2” diam pipe: Improvements to drinking water service
Vega Baja	Calle María Rodríguez Com Bethel	Renewal 2” diam pipe: Improvements to drinking water service
Morovis	Carr 155 Km 42.5 Bo. Rio Grande	Renewal 2” diam pipe: Improvements to drinking water service
Manatí	Bo. Cortes Sector Las Lomas Carr 667 Km 2.3	Repair pipes leak 6” diam pipe: Improvements to drinking water service
Naranjito	Sector Feijo Km 15.8	Renewal 2” diam pipe: Improvements to drinking water service
Naranjito	Sector Acueductos Carr 164 Km 6.0 Int	Renewal 4” diam pipe: Improvements to drinking water service
Corozal	Bo. Palmarito	Renewal 2” diam pipe: Improvements to drinking water service
Naranjito	Sector Negrón Km 1.5 Carr 164	Renewal 1/2” diam pipe: Improvements to drinking water service
Lares	Calle Pedro Albizu Campos #5	Renewal 6” diam pipe: Improvements to drinking water service
Ciales	Bo. Pozas Sect Puente	Renewal 2” diam pipe: Improvements to drinking water service
Naranjito	Carr 826 Km 1.2 Int	Renewal 1/2” diam pipe: Improvements to drinking water service
Naranjito	Sector El Palmar Carr 814	Renewal 1/2” diam pipe: Improvements to drinking water service

Municipality	Address	Project Description
Toa Alta	Sector Breña 4-A Carr 693, Km 13.4 Int	Renewal 1/2” diam pipe: Improvements to drinking water service
Vega Alta	71 Calle Unión	Renewal 1/2” diam pipe: Improvements to drinking water service

Appendix J

North Region Sanitary Pipe Ruptures

North Region Sanitary Pipe Ruptures

Municipality	Address	Project Description
Vega Baja	Urb. El Rosario II Calle 7 U23	Installation of 4" diam sanitary service connection
Manatí	Parcela Márquez Calle Los Pinos #4	Installation of 4" diam sanitary service connection
Morovis	Bo. Torrecillas Carr. 155 Esq. PR 137 KM 50.6	Installation of 8" diam sanitary service connection 8"

Appendix K

South Region Most Important Pipeline Rehabilitation Projects

South Region Most Important Pipeline Rehabilitation Projects

Municipality	Address	Description
Ponce	Calle Nuclear de Urbanización Flamboyanes	Installation of a bypass system Renewal of 60 meters of 8-inch SDR35 PVC pipe Manhole rehabilitation
Ponce	PR-14	Renewal of 45 feet of 6-inch sanitary pipeline
Ponce	Servidumbre de Paso Urb. Jardines del Caribe	Installation of a bypass system Renewal of 140 feet of 8-inch pipe by using liner Disconnection of three sanitary pipelines Rehabilitation of two manholes
Ponce	Calle Carambola Urb. Los Caobos	Installation of a bypass system Renewal of 255 feet of 8-inch pipe Complete renewal of 10 sanitary pipelines Rehabilitation of two manholes
Adjuntas	Casco Urbano	Liner of approximately 1,755 feet of 8-inch pipe Disconnection of 50 sanitary pipelines Rehabilitation of seven sanitary inspection manholes
Ponce	Colegio Ponceño	Installation of a bypass system Renewal of 550 feet of 8-inch pipe by using liner Rehabilitation of three manholes
Ponce	EBAS La Ceiba	Replacement of 10-inch discharge pipe column
Guánica	EBAS Palomas	Replacement of 8-inch discharge pipe column
Ponce	Int. Calle Nuclear y Nube Urb. Bella Vista	Installation of a bypass system Renewal of 45 feet of 8-inch pipe Rehabilitation of two manholes
Juana Díaz	PR-149 KM 64.8	Replacement of 40 feet of 15-inch pipe
Ponce	Avenida Las Américas	Renewal of 70 feet of 6-inch sanitary pipeline
Ponce	Marginal Paseo Perla del Sur (PR-2 KM 227.1)	Installation of a bypass system Renewal of 135 feet of 8-inch pipe Renewal of two sanitary pipelines Rehabilitation of two manholes
Guayanilla	Calle Hacienda La Gloria Urb. Santa María	Installation of a bypass system Renewal of 180 feet of 8-inch pipe Complete renewal of five sanitary pipelines Rehabilitation of two manholes
Ponce	Calle Eucalipto Urb. Glenview Gardens	Installation of a bypass system Renewal of 455 feet of 8-inch pipe Complete renewal of 21 sanitary pipelines Rehabilitation of three manholes

Appendix L

East Region Drinking Water Pipe Ruptures

East Region Drinking Water Pipe Ruptures

Operational Area	Address (Municipality)	Replacement of Drinking Water Pipes
Caguas	Carr # 2 Km 157 Bo. Sábalos	Replacement of 43ml drinking water pipe 6" diam DI
Caguas	Bo. Mulas	Replacement of 228ml drinking water pipe 4" diam PVCSDR14
Cayey	Bo. Toitas	Replacement of 183ml drinking water pipe DI
Cayey	Rabanal	Replacement of 167ml drinking water pipe 2" diam PVCSDR14
Cayey	EB Culebras	Replacement of 121ml drinking water pipe 6" diam DI
Cayey	Don Jose	Replacement of 12ml drinking water pipe 8" y 12" diam DI
Cayey	Certenejas	Replacement 79ml drinking water pipe 4" y 6" diam PVCSDR14
Cayey	Sector La Mora	Replacement 152ml drinking water pipe 4" diam DI
Cayey	La Gallera	Replacement 129ml drinking water pipe 6" diam PVCSDR14
Cayey	Urb. La Plata	Replacement 198ml drinking water pipe PVSDR35
Fajardo	PR966	Replacement 110 ml drinking water pipe 4" diam PVCSDR14
Humacao	EBA Villa Palmira	Replacement 36ml drinking water pipe 16" diam DI
Humacao	Cristiana	Replacement 24 ml drinking water pipe 12" diam DI
Humacao	Cerca de la cuesta de Aguacate	Replacement 24ml drinking water pipe 8" diam DI

Appendix M

East Region Sanitary Pipe Ruptures

East Region Sanitary Pipe Ruptures

Operational Area	Address (Municipality)	Replacement of Sanitary Pipes
Caguas	Cerro Gordo	Replacement of 40ml sanitary pipe 8" diam PVCSDR35
Caguas	Caguas Norte	Replacement of 130ml sanitary pipe 8" diam PVCSD35
Caguas	Urb. Santa Clara	Replacement of 61ml sanitary pipe 8" diam PVCSDR
Caguas	Cerro Gordo	Replacement of 40ml sanitary pipe 8" diam PVCSDR
Caguas	Jardines Cerro Gordo	Replacement of 120ml sanitary pipe 8" diam PVCSD
Caguas	Gautier Benitez	Replacement of 244ml sanitary pipe 10" diam PVCDR35
Caguas	Rafael Cordero	Replacement of 345ml sanitary pipe 8" diam PVCSD35
Caguas	Valle Tolima	Replacement of 428ml sanitary pipe 8" and 10" diam PVCDR14
Caguas	Padilla Caribe	Replacement of 73ml sanitary pipe 8" diam PVCSDR35
Caguas	Certenejas	Replacement of 91ml sanitary pipe 8" diam DI
Caguas	Tolima	Replacement of 73 ml sanitary pipe 10" diam PVCSDR14
Caguas	Villa Rey	Replacement of 115 ml sanitary pipe 8" diam PVCSDR14
Caguas	Bairoa La 25	Replacement of 12ml sanitary pipe 24" diam PVCSDR35
Caguas	Carr 181 cerca de Antigua PAS San Lorenzo	Replacement of 160ml sanitary pipe 8" diam PVCSD35
Caguas	El Verde	Replacement of 149ml sanitary pipe PVCSDR35
Cayey	Patricio Cora	Replacement of 67ml sanitary pipe 8" diam PVCSDR35
Cayey	Carr PR 14 Bo. Pueblo	Replacement of 152 ml sanitary pipe 10" diam
Cayey	Polvorin	Replacement of 272 ml sanitary pipe 8" diam PVCSDR35
Fajardo	Calle Juan R. González, Río Grande	Replacement of 51ml sanitary pipe 8" diam PVC SDR-35
Humacao	Villa Humacao	Replacement of 56ml sanitary pipe 8" diam PVCSDR35
Humacao	Calle 3 de Reparto Arenales PR-936 Km 0.7	Replacement of 55ml sanitary pipe 8" diam DI
Humacao	Eulogio Reyes	Replacement of 86ml sanitary pipe 12" diam PVCSDR35
Humacao	Ruiz Belvis	Replacement of 60ml sanitary pipe 8" diam PVCSDR35
Humacao	Gregorio	Replacement of 98ml sanitary pipe 8" diam PVCSDR35
Humacao	Ext. Buena Ventura	Replacement of 12ml sanitary pipe 8" diam DI
Humacao	Punta Santiago	Replacement of 64ml sanitary pipe 27" diam PVCSDR35
Humacao	Urb. Verde Mar	Replacement of 60ml sanitary pipe 8" diam PVCDR
Humacao	Carr 9909 Campo Traviesa	Replacement of 6ml sanitary pipe 12" diam PVCSDR35

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