



# **FAASt WORKPLAN**

# **Puerto Rico Aqueduct and Sewer Authority (PRASA) Post-Fixed Cost Estimate Obligation Workplan** FEMA-4339-DR-PR

FEMA Accelerated Award Strategy (FAASt)

**Twelfth Revision-April 2024** 

#### **DISCLOSURE**

The Puerto Rico Aqueduct and Sewer Authority (PRASA), as part of this Post-Fixed Cost Estimate Obligation Workplan under the FEMA Disaster Number 4339-DR, includes an infrastructure investment strategy for the selection of projects under the PRASA's sixteen asset categories. The estimated amount assigned to each category and/or project is exclusively for PRASA's budget purposes. The cost estimate included in each category and/or project necessarily does not represent the final cost of the project.



# NOMENCLATURE

AMWA	Association of Metropolitan Water Agencies			
ASTM	American Society of Testing and Materials			
AWIA	America's Water Infrastructure Act of 2018			
AWWA	American Water Works Association			
AAA	Puerto Rico Aqueduct and Sewer Authority			
В	PRASA Building (s)			
BBA	2018 Bipartisan Budget Act			
CIP	Capital Improvement Program			
COR3	Central Office of Recovery, Reconstruction, and Resiliency			
CWA	Clean Water Act			
CDBG-DR	Community Development Block Grant Disaster Recovery			
D	Dam (s)			
DOH	Department of Health			
D & T -WL	Distribution and Transmission Water Line (s)			
EQB	Environmental Quality Board			
FAASt	FEMA Accelerated Award Strategy			
FEMA	Federal Emergency Management Agency			
FY	Fiscal Year (PR Fiscal Year from July to June)			
GIS	Geographical Information System			
Government	Government of Puerto Rico			
Governor	Governor of Puerto Rico			
HUD	Department of Housing and Urban Development			
ICC	International Building Code			
KPIs	Key Performance Indicators			
kWh	Kilowatt-Hours			
MGD	Million Gallons per Day			
NFPA	National Fire Protection Association			
NPS	National Primary Standards			



NSF	National Standards Foundation			
OMB	Puerto Rico Office of Management and Budget			
O&M	Operations and Maintenance			
00	Ocean Outfalls			
PPTD	Projects Pending to be Determined			
PR	Puerto Rico			
PRASA	Puerto Rico Aqueduct and Sewer Authority			
PRDH	Puerto Rico Department of Health			
PREPA	Puerto Rico Electric Power Authority			
PRIFA	Puerto Rico Infrastructure Finance Authority			
PROMESA	Puerto Rico Oversight, Management, and Economic Stability Act			
PSI	Pounds per Square Inch			
PWSID	Potable Water System Identification			
Regions	Operational Regions			
R	Reservoirs			
RD	Reservoirs Dredging			
RFQ	Request for Qualification			
RFP	Request for Proposal			
RWI	Raw Water Intake			
RWW	Raw Water Well (s)			
SDWA	Safe Drinking Water Act			
System	Authority's Public Water Supply and Wastewater System			
SOP	Standard Operating Procedure			
SOW	Scope of Work			
STS	Sludge Treatment System			
Т	PRASA Telemetry System			
TSL	Trunk Sewer Line (s)			
US	United States of America			
USDA	United States Department of Agriculture			



USEPA	United States Environmental Protection Agency
WM	Water Meter (s)
WST	Water Storage Tank (s)
WTP	Water Treatment Plant (s)
WPS	Water Pump Station (s)
WWTP	Wastewater Treatment Plant (s)
WWPS	Wastewater Pump Station (s)

## SYMBOLS

\$	Dollar
%	Percent
Q	Quarter



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# **Chapter 1 Executive Summary**

The 2017 hurricane season caused unparalleled devastation in Puerto Rico. During September of that year, Puerto Rico experienced a Category five (5) and Category four (4) hurricane (Irma and María, respectively). Hurricane María was the most devastating natural disaster to hit the island since Hurricane San Felipe made landfall nine decades ago in 1928. Since that time, the population has expanded, from 1.5 million residents to a current population of 3.4 Million.

Category five (5) Hurricane Irma, one of the strongest recorded storms in the Atlantic, affected Puerto Rico on September 6, 2017. Due to its passing through the northern part of the island, the Puerto Rico Aqueduct and Sewer Authority (PRASA) suffered damages to water treatment facilities and other structures. Over one million customers lost electric power, and over one-third of PRASA's customers lost drinking water service.

Just a few days later, on September 20, Puerto Rico felt the ruthless force of Category four (4) Hurricane Maria, the most massive disaster that the Island has endured, impacting all PRASA's infrastructure severely across the island. The flooding and loss of the electrical power system resulted in a shutdown on most of the island's water supply and wastewater treatment plants and pumping stations. Sewage waters contaminated the streets, rivers, and sea, posing an immediate threat to the environment, public health, and safety. PRASA acted diligently to promptly restore the water and wastewater service using both internal and external resources.

For projects necessary to build back PRASA's System to pre-hurricane conditions and improve resiliency to potential future events, on January 5, 2021, the Federal Emergency Management Agency (FEMA) announced the obligated grant for PRASA for **\$4.2 Billion**. FEMA reserved the obligated funds to repair, improve or replace PRASA's infrastructure as per FEMA's Public Assistance Alternative Procedures, according to Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act and in compliance with the US Congress 2018 Bipartisan Budget Act (BBA). PRASA requires to provide safe water and wastewater service and supply to the 1.2 million active clients through the following infrastructure:



- Fifty-one (51) Wastewater Treatment Plants (WWTP)
- One hundred and fourteen (114) Water Treatment Plants (WTP)
- PRASA buildings
- Eight (8) Dams
- Around three thousand eight hundred (3,800) ancillary facilities (1,560 Tanks; 1,977 Pump Stations; 249 Water Wells)
- Over 20,000 miles of potable water and wastewater collection pipes

As a requirement associated with this funding obligation, FEMA and the Central Office of Recovery, Reconstruction, and Resiliency (COR3) required PRASA to submit a work plan, called PRASA's FAASt Workplan, within 90 days of the funding obligation date. This plan would outline PRASA's proposed investments in Puerto Rico's water systems over the next ten years. Also, PRASA is required to update and resubmit this work plan to COR3 and FEMA every 90 days after the initial submission.

This FAASt Workplan provides an overview of PRASA's infrastructure investment strategy; the context for the selection of projects included in the plan; a prioritized list of these proposed infrastructure projects; the expected benefits, projected costs, key project milestones, the estimated time horizon for each project; and a brief overview of PRASA's approach to managing the execution of this program and the group of projects described herein.

This document addresses COR3 and FEMA's requirement to plan a list of projects for the obligated funds. Projects in this plan will include funding from the FEMA Accelerated Award Strategy (FAASt) and 404 hazard mitigation programs and HUD Community Development Block Grant Disaster Recovery (CDBG-DR) program.

# 1.1 The Investment Strategy Overview

Several investment focus areas based on work previously completed by PRASA and developed by PRASA's team and other stakeholders such as FEMA and COR3 guided PRASA's investment strategy for this FAASt Workplan.



PRASA leveraged the information in each area and performed an additional evaluation to guide the project's selection in this FAASt Workplan.

PRASA selected these five (5) foci areas to define the intent of the projects in this plan. Table 1-1 summarized the five (5) investment focus areas and a brief description of each one.

Focus Areas	Brief Description			
Public Health &	Ensure to provide a safe and reliable supply of drinking water and treatment of			
Environmental	wastewater, complying with federal environmental regulations to safeguard the			
Protection	population's health and the island's environment while guaranteeing an			
	affordable service for all customers.			
Codes and Industry	Rehabilitate, improve, or restore the water system following Codes and Industry			
Standards	Standards, including the applicable PRASA design standards, contained in the			
	Reglamento de Normas de Diseño de la AAA.			
Reliability and	Ensure the required investment in necessary technology and infrastructure to			
System Resiliency	restore the system, enhance resiliency, and establish an efficient and safe water			
	system that provides customer reliability.			
Hazard Mitigation	Ensure to provide long-term solutions that reduce the PRASA's infrastructure			
	impact of future events and minimize disaster losses and system vulnerability.			
Modernization and	Modernize and maintain PRASA's infrastructure to optimize its operational			
Maintenance	efficiency, protect public health, safeguard the environment, and promote			
	continued economic development.			

#### Table 1-1: List of Investment Focus Areas

# 1.2 Asset Categories and Prioritization Approach

To develop this plan, PRASA's team examined more than 1,400 possible projects. Focused on the five (5) investment focus areas mentioned above to set the safe, reliable, and efficient water and wastewater treatment services, PRASA list of projects has been updated as follows:

- Initial FAASt Workplan submittal list, 136 projects
- Second revision, list updated to 141 projects



- Third revision, list of projects updated to 180.
- Fourth revision, list of projects increased to 196.
- Fifth and Six revisions, projects updated to 197.
- Seventh revision and Eighth revision, list of projects updated to 253.
- Ninth revision, list of projects updated to 265.
- Tenth revision, list of projects updated to 269.
- Eleven revision, list of projects reorganized to 192.
- Twelfth revision, list of projects updated to 251.

The 251 projects in the plan are still organized into sixteen distinct asset categories, including the projects under 404 and 406 hazard mitigation and HUD Community Development Block Grant Disaster Recovery (CDBG-DR) programs. PRASA based the plan's asset categories on the categorization approach used to reach the FAASt funding obligation. Table 1-2 summarized the asset categories list.

Asset Category	Brief Description	
Water Treatment Plants (WTP)	114 WTP Islandwide, including the Raw Water	
	Intakes (RWI). One (1) WTP was closed after	
	Hurricane María.	
Wastewater Treatment Plants (WWTP)	51 WWTP Islandwide	
Wastewater Pump Stations (WWPS)	799 WWPS Islandwide	
Water Pump Stations (WPS)	468 WPS Islandwide	
Water Storage Tanks & Water Pump Stations	808 WPS Islandwide	
(WST & WPS)		
Water Storage Tanks (WST)	997 WST Islandwide	
Ocean Outfalls (OO)	12 Ocean Outfalls Island wide	
Dams (D)	8 Dams Islandwide operated by PRASA	
Reservoirs (R)	8 Reservoir Islandwide	
Raw Water Wells (RWW)	269 Raw Water Wells Islandwide	

Table 1-2: Asset Categories List



Asset Category	Brief Description
Buildings (B)	91 PRASA Buildings Islandwide
Distribution and Transmission Water Lines (D & T -WL)	Estimated amount of 15,148 Miles of Water Lines Islandwide in diameters ranging from 1" to 84" and in a wide variety of materials.
Water Meters (WM)	872,596 each of Water Meters Islandwide part of the Distribution and Transmission Water Lines System.
Trunk Sewer Lines Islandwide (TSL)	Estimated amount of 5,994 Miles of Sewer Pipes Islandwide in diameters ranging from 4" to 90" and a wide variety of materials.
Telemetry (T)	Telemetry System along with PRASA Islandwide facilities: WTP, WWTP, WWPS, WPS, and Wells. Telemetry topic included in individual projects.
Projects Pending to be Determine (PPTD)	PRASA will evaluate other projects covered under the FAASt funding obligation. PRASA will use this classification to integrate projects to be defined and/or cover contingencies of already approved projects.

PRASA's team identified the projects for inclusion in the FAASt Workplan, prioritized the projects, and developed the estimated sequencing for FEMA submission, approval, and subsequent execution. Each project in the FAASt Workplan includes a brief project description and cost estimate. PRASA's team also listed each project into one of the three-time horizons: near-term (i.e., 2021-2023), mid-term (i.e., 2024-2027), and long-term (i.e., 2028 and beyond).

Four (4) major standard milestones were defined and standardized across all projects in the FAASt Workplan. PRASA's team estimated the timing for each major milestone for each project.



The four (4) standardized major milestones are:

- Project expected to commence 30% architecture and engineering work.
- Project expected submission to COR3 and FEMA for review and approval.
- Project expected to commence construction/implementation.
- Project expected to commence FEMA and COR3 closeout activities.

PRASA assigned projects to a time horizon based on when the project's first major milestone starts. The prioritization methodology used the following criteria:

- Currently out of service or inoperative infrastructure
- Safety, environmental, and water quality standards requirements
- System operation needs and constraints
- Impacts to reliability performance, such as extreme droughts
- Severe storm hazard mitigation



# 1.3 Plan Overview

PRASA's FAASt Workplan includes approximately **\$4.2 Billion** in investment needed to rehabilitate and improve Puerto Rico's water and wastewater system, most of which qualifies for FEMA funding under its 428 and 404 hazard mitigation programs. FEMA has under evaluation several projects submitted by PRASA under the 404 funds, and currently Phase 1 for the following three (3) projects already received approval. The 404 approved projects until this revision are the following:

- Project # 4339-0046- South Region Water Supply System Improvement (Bauta Tunel)-Phase 1, Approved Amount \$ 26,416,007.71. Total Estimated Cost of the Project is \$245,406,750.22.
- Project # 4339-0019- Enrique Ortega Water Treatment Plant Raw Water Intake Power Generators Phase 1, Approved Amount \$661,523.70. Total Estimated Cost of the Project is \$ 28,645,725.14.
- Project # 4339-0020- Salinas Water Supply System Project Phase 1, Approved Amount \$2,740,874.20. Total Estimated Cost of the Project is \$44,138,250.01.
- Project -Valenciano Distribution System- Total Estimated Cost is \$414,550.525.79.

Also, PRASA will submit proposals for 406 funding with its applicable 428 proposals. FEMA's 406 programs are designed to provide funding to rebuild infrastructure exceeding industry standards to prevent damage from future disaster events, referred to as the "hardening" of assets. In alignment with COR3 and FEMA's process, PRASA will submit proposals for 406 funding with each of its applicable 428 project submittals.

Currently, PRASA already received approval under the 406 funds for the following projects:

- Project # 180626 (CIP.5376001)- FAASt Repair of Geosynthetic Membranes in Lago Regulador in Isabela- Approved Amount \$ 6,913,876.71.
- Project # 180814 (CIP.2095052)-FAASt Rehabilitation of 42" Trunk Sewer Line from PR-684 to the South Part of Barceloneta WWTP-Approved Amount \$17,102,872.73.



- Project # 169694 (CIP.2096007) FAASt Rehabilitation of Enrique Ortega Water Treatment Plant -Approved Amount \$2,330,560.24.
- Project #178297 (CIP.2526006) FAASt Rehabilitation of Morovis Sur WTP -Approved Amount \$3,885,239.92.
- Project #173455 (CIP.2479001) FAASt Rehabilitation of Morovis Sur RWI -Approved Amount \$851,478.91.
- Project #553310 (CIP.2426100) FAASt Rehabilitation of Lares Espino WTP & RWI
   Approved Amount \$1,804,996.19.
- Project #701169 (CIP.2739001) FAASt Replacement of Utuado Urbano WTP RWI at Vivi Reservoir - Approved amount \$55,651.20.

Table 1-3 summarized the plan by asset categories and funding source, deducting the amount of **\$133.7 Million** corresponding to insurances, as described in the approved FAASt Project Number 144184, MAAA200 PRASA Islandwide.



Asset Category	FEMA 428(\$M)	*FEMA 404 (\$M)	**FEMA 406(\$M)	Estimated Total Cost
WTP	\$1,751.33	\$321.53	\$542.26	\$2,615.12
WWTP	\$1,005.41	\$0.00	\$1,602.52	\$2,607.93
WWPS	\$60.28	\$0.00	\$7.10	\$67.38
WPS	\$52.85	\$0.00	\$111.49	\$164.34
WST & WPS	\$14.12	\$0.00	\$0.00	\$14.12
WST	\$25.28	\$0.00	\$0.00	\$25.28
RWW	\$23.09	\$0.00	\$0.00	\$23.09
В	\$86.88	\$0.00	\$17.95	\$104.84
00	\$27.49	\$0.00	\$0.00	\$27.49
D	\$7.19	\$0.00	\$4.03	\$11.22
R	\$129.30	\$0.00	\$60.44	\$189.74
D&T-WL	\$293.15	\$187.66	\$1.99	\$482.79
WM	\$238.08	\$0.00	\$578.04	\$816.12
TSL	\$347.34	\$0.00	\$17.10	\$364.44
Т	\$3.57	\$0.00	\$0.00	\$3.57
PPTD***	\$3.94	\$0.00	\$0.00	\$3.94
Total	\$4,069.29	\$509.19	\$2,942.93	\$7,521.40

Table 1-3: Plan Summary by Asset Categories and Funding Source List

\* 404 Funds- Approved and proposed \*\* 406 Funds – Approved and proposed

It is important to note that all cost estimates in this document are "class 5" estimates. A class 5 cost estimate is defined as an estimate with an accuracy range from 50% below to 100% above the actual final project cost and is prepared at an early stage in the project development process. Leading industry practice is to revise estimates to become more accurate as engineering design progresses and project requirements are solidified.

In addition to the funding sources discussed above, PRASA will seek to leverage funds from Community Development Block Grant Disaster Recovery (CDBG-DR) for the 10% cost-share allocation.

Forecast spend projections for each project are scoped to include all project activities from the point at which the project commences initial architectural and engineering work through the



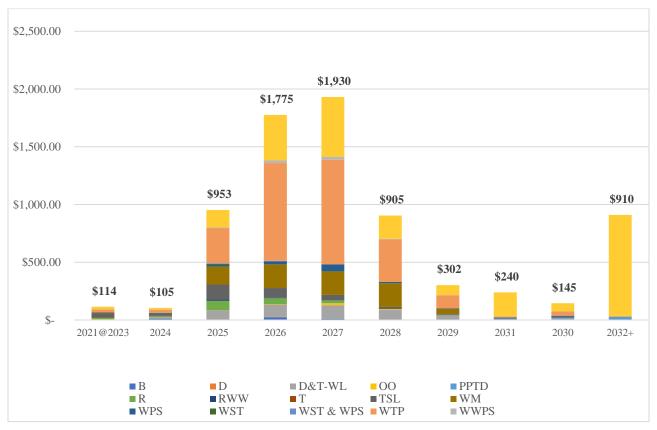
completion of project closeout activities. Several projects within the FAASt Workplan extend throughout the entire 10-year period.

Figure 1-1 and Figure 1-2, illustrates the projected cash flow for the next ten years and the cost-share allocation needs by the Fiscal Year (FY), which starts in July of each year and ends in June of the next year.



Figure 1-1: Projected Cash Flow and Cost-Share Allocation Needs by FY (\$ Million)









As discussed above, 251 projects were identified in this revision, prioritized, and included in the FAASt Workplan - Twelfth Revision - April 2024.

Table 1-4 illustrates the distribution of these projects by asset category and when the projects are planning to begin the architectural and engineering (A & E) design phase on the horizon.

# Table 1-4: Number of Projects to Start A & E Design Phase by Asset Category in the TimeHorizon (Natural Years and Cumulative Total)

	Ne	ar- Term	Mi	id – Term	Lo	ng – Term		Total
Asset Category	(2021-20	023) Projects/\$ (M)	6 (2024-2027) (2028-2030) Projects/\$ (M) Projects/\$ (M)			Projects/\$ (M)		
WTP	52	\$1,619.14	29	\$125.42	2	\$ 6.77	83	\$1,751.33
WWTP	18	\$ 794.05	20	\$166.08	6	\$ 45.28	44	\$1,005.41
WWPS	7	\$ 56.52	2	\$ 0.00	4	\$ 3.75	13	\$ 60.28
WPS	6	\$ 33.91	3	\$ 0.00	4	\$ 18.94	13	\$ 52.85
WST & WPS	2	\$ 13.72	0	\$ 0.00	1	\$ 0.40	3	\$ 14.12
WST	5	\$ 21.28	0	\$ 0.00	3	\$ 4.00	8	\$ 25.28
RWW	5	\$ 23.09	0	\$ 0.00	0	\$ 0.00	5	\$ 23.09
В	4	\$ 51.27	3	\$ 35.11	1	\$ 0.50	8	\$ 86.88
00	1	\$ 26.99	0	\$ 0.00	1	\$ 0.50	2	\$ 27.49
D	1	\$ 7.19	0	\$ 0.00	1	\$ 0.00	2	\$ 7.19
R	4	\$ 128.80	2	\$ 0.00	1	\$ 0.50	7	\$ 129.30
D&T-WL	38	\$ 287.44	2	\$ 3.46	2	\$ 2.24	42	\$ 293.15
WM	1	\$ 4.12	1	\$233.96	0	\$ 0.00	2	\$ 238.08
TSL	14	\$ 334.08	0	\$ 0.00	3	\$ 13.26	17	\$ 347.34
Т	0	\$ 0.00	0	\$ 0.00	1	\$ 3.57	1	\$ 3.57
PPTD	0	\$ 0.00	0	\$ 0.00	1	\$ 3.94	1	\$ 3.94
Total	158	\$3,401.61	62	\$564.03	31	\$103.65	251*	\$4,069.29**

\*Total of Projects, includes 404 and 406 projects.

\*\* Total Amount, does not include 404 and 406 assigned and/or requested funds.



Figure 1-3 provides the estimated timeframe for project submission to FEMA for review and approval. The number of projects will likely change over time as PRASA collaborates with FEMA and COR3 to evaluate each project and optimize its project submission and evaluation strategy.

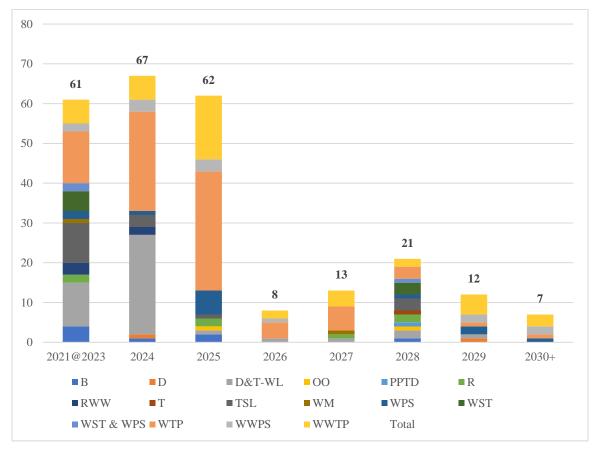


Figure 1-3: FEMA SOW Estimated Initial Submittal Timeline (Natural Years)

The following sections provide additional information about each of the priority categories, near-term, mid-term, and long term.



# 1.4 Near-Term Projects Profile (2021-2023)

There are 158 projects in the near-term priority category. These projects have already begun 30% architectural and engineering (A & E) design in 2021, 2022, and 2023 (natural years).

The cumulative investment on the projects started within the near term is \$3.4 Billion. Figure 1-4 illustrates the breakdown of cumulative investment by asset category for projects that begun during this period.

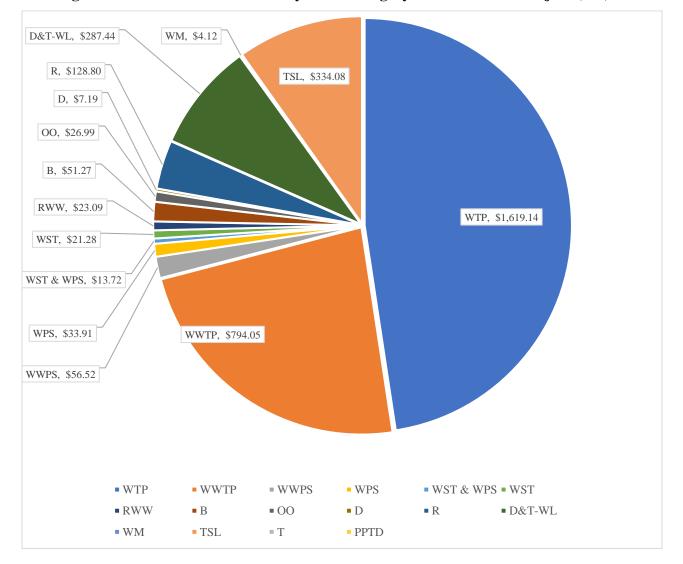


Figure 1-4: Total Estimated Cost by Asset Category for Near-Term Projects(\$M)



Table 1-5 provides a representative sample of notable projects slated to start during this period.

A high proportion of the FAASt Workplan projects have been sequenced in the near-term time horizon for several reasons:

- It is PRASA's objective to deliver results as quickly as possible.
- Some projects already have completed preliminary engineering and are ready to proceed into the 30% design phase.
- Some projects have a complex design, and the availability of designers with the necessary expertise is limited in Puerto Rico and these must be started in the nearterm and completed within the later years of the plan.
- In many cases, environmental remediation, rights-of-way, permits, and approvals must be carried out before the actual project begins.

Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Total Cost Estimate
WST	CIP.1009001	Rehabilitation of Tanks Phase 1- Metro Region	2021-Q4	2022-Q1	\$4.68
R	CIP.1009002	Carraizo Reservoir Sediment Control (Proposed 406)	2022-Q3	2025-Q1	\$49.53
WPS	CIP.1009103	Rehabilitation of Water Pump Stations Tanks Phase 1- Metro Region	2023-Q1	2025-Q2	\$3.39
RWW	CIP.1009106	Rehabilitation of Raw Water Well Phase 1- Metro Region	2022-Q1	2024-Q4	\$2.01
WTP	CIP.1016095	Rehabilitation of Guaynabo WTP	2021-Q4	2025-Q1	\$105.52
R	CIP.1019000	Carraizo Reservoir Dredging	2021-Q1	2021-Q2	\$109.90
D&T-WL	CIP.1019001	Rehabilitation of D&T-WL Bo. Sonadora, Renacer Sector and Mansiones, Municipality of Guaynabo	2023-Q2	2023-Q4	\$2.09
D&T-WL	CIP.1019002	Reemplazo Tubería 2" AP Sector Camino Los Bigios, Caimito (FAAST) #NRW #JG	2023-Q2	2024-Q3	\$0.60
D&T-WL	CIP.1019004	Replacement of WL Pipe, El Gato Sector at PR- 834, Municipality of Guaynabo	2023-Q2	2024-Q3	\$0.94
WTP	CIP.1076003	Super Aqueduct Microgrid (Proposed 406)	2023-Q3	2025-Q1	\$97.47
D&T-WL	CIP.1115069	Renovación Tub Agua Potable Sec La Pra y Los Fonsecas Bo Buena (FAAST) #NRW #JG	2023-Q2	2024-Q3	\$1.18
D&T-WL	CIP.1115070	Infra. Agua Potable Com. Doña Concha, Bayamon (FAAST) #NRW #JG	2023-Q2	2024-Q3	\$0.54
D&T-WL	CIP.1115071	Infraestructura Agua Potable Sec. Los Fonseca Bo. Cerro Gordo (FAAST) #NRW #JG .	2023-Q2	2024-Q3	\$0.64

#### Table 1-5: Near-Term (2021-2023) Notable Projects



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Total Cost Estimate
WTP	CIP.1116008	Rehabilitation of Guaynabo Santa Rosa WI (FAAST-25)	2022-Q2	2024-Q2	\$61.35
WTP	CIP.1156004	Rehabilitation of Cubuy WTP and RWI, Municipality of Canóvanas	2023-Q1	2025-Q1	\$10.26
WPS	CIP.1159000	Design and Build of Rehabilitation of Water Pump Station at La Central, Municipality of Canóvanas	2023-Q2	2025-Q1	\$1.55
D&T-WL	CIP.1159001	Reemplazo y Renovación Tubería AP Urb. Loiza Valley (FAAST) #NRW #JG	2023-Q2	2024-Q3	\$1.97
WWTP	CIP.1165044	Rehabilitation of Carolina WWTP FEMA (FAAST-25)	2021-Q3	2022-Q3	\$82.05
TSL	CIP.1169001	Rehabilitation of Los Angeles and Loiza Pueblo Trunk Sewers (FAAST)	2021-Q3	2021-Q3	\$11.73
D&T-WL	CIP.1169002	Reemplazo y Renovación Tubería AP Urb. Villa Fontana (FAAST) #NRW #JG	2023-Q2	2024-Q3	\$2.13
В	CIP.1660002	Rehabilitation of PRASA Main Building (Sede) Inspection Only	2021-Q4	2021-Q4	\$0.48
D&T-WL	CIP.1665120	Renovación Tubería SDR14 Urb. Country Club, San Juan (FAAST) #NRW #JG	2023-Q2	2024-Q3	\$3.61
WWPS	CIP.1665900	Rehabilitation of Martín Peña WWPS (Tokio), Municipality of San Juan	2023-Q2	2025-Q2	\$12.99
D&T-WL	CIP.1669001	Improvements to Water Distribution System, Hollywood Hills, Municipality of San Juan	2023-Q3	2024-Q4	\$2.38
WTP	CIP.1709000	Enrique Ortega WTP- Raw Water Intake Power Generator (FEMA-404)	2021-Q2	2024-Q2	\$43.78
WTP	CIP.1726043	Rehabilitation of Sergio Cuevas WTP	2022-Q2	2024-Q4	\$116.66
WST	CIP.2009001	Rehabilitation of Tanks Phase 1- North Region	2022-Q1	2022-Q4	\$5.48
WPS	CIP.2009103	Rehabilitation of Water Pump Stations Tanks Phase 1- North Region	2022-Q2	2024-Q3	\$6.89
WWPS	CIP.2009104	Rehabilitation of Wastewater Pump Stations Tanks Phase 1- North Region	2022-Q2	2024-Q2	\$7.88
RWW	CIP.2009106	Rehabilitation of Raw Water Well Phase 1- North Region	2022-Q3	2023-Q2	\$9.18
WTP	CIP.2017005	Rehabilitation of Culebrinas WTP	2021-Q1	2021-Q1	\$110.33
WWPS	CIP.2039000	Rehabilitation of Guerrero 2 WWPS, Municipality of Aguadilla	2022-Q1	2022-Q1	\$5.54
D&T-WL	CIP.2071000	Improvements to Arecibo Water Distribution System (Proposed 406)	2023-Q1	2028-Q1	\$5.00
WWTP	CIP.2075073	Rehabilitation of Islote WWTP, Arecibo (Proposed 406)	2022-Q3	2025-Q3	\$118.61
WTP	CIP.2076042	Rehabilitation of Esperanza Arecibo WTP and RWI	2021-Q3	2022-Q1	\$20.73
WST & WPS	CIP.2079004	Improvements to Cerro Marquez WPS & 2.0 MG Tank, Municipality of Arecibo	2022-Q4	2023-Q2	\$5.35
TSL	CIP.2095052	Rehabilitation of 42 IN Trunk Sewer Line from PR-684 to the South part of Barceloneta WWTP	2021-Q3	2022-Q1	\$32.32
WTP	CIP.2096007	Rehabilitation of Enrique Ortega WTP	2021-Q1	2021-Q1	\$159.22



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Total Cost Estimate
TSL	CIP.2149001	Rehabilitation of Camuy Trunk Sewer Lines (FAAST)	2022-Q1	2021-Q3	\$76.07
WTP	CIP.2206107	Rehabilitation of Ciales Fronton WTP and RWI	2021-Q4	2022-Q2	\$27.64
WTP	CIP.2246106	Rehabilitation of Corozal Negros RWI	2022-Q3	2024-Q1	\$8.01
WTP	CIP.2246116	Rehabilitation of Corozal Negros WTP	2023-Q1	2024-Q4	\$36.68
D&T-WL	CIP.2265016	D&B Installation of 12 in Water Pipeline PR- 691, Dorado, PR (FAAST)	2023-Q4	2024-Q2	\$10.44
D&T-WL	CIP.2265017	Design and Build for the Rehabilitation of the Distribution System of Vega Alta & Dorado Potable Water	2023-Q3	2024-Q2	\$4.57
WWTP	CIP.2265030	Rehabilitation of Dorado WWTP, Dorado, PR (FAAST)	2023-Q3	2024-Q4	\$4.13
D&T-WL	CIP.2269000	Rehabilitation of Distribution System Dorado/Vega Alta (Dorado Twist) (FAAST) #NRW #JG	2023-Q2	2024-Q2	\$1.45
D&T-WL	CIP.2269001	Replacement of 4 IN Pipeline in Villa 2000 Community in Dorado	2022-Q4	2023-Q2	\$1.99
WPS	CIP.2329004	Design and Build of Rehabilitation of Water Pump Station at Ciales Pozas	2022-Q3	2023-Q1	\$5.28
WTP	CIP.2346015	Rehabilitation of Hatillo-Camuy WTP	2022-Q1	2022-Q2	\$52.25
D&T-WL	CIP.2346016	Replacement of 4" and 6" WL, Bayaney Ward, Municipality of Hatillo	2023-Q2	2024-Q3	\$1.46
D&T-WL	CIP.2349003	Design and Build 16" WL, PR-119, Hatillo- Camuy	2022-Q4	2023-Q3	\$6.54
TSL	CIP.2375002	Trunk Sewer Lines (TSL) Isabela - Aguada (FAAST)	2021-Q4	2022-Q3	\$42.41
TSL	CIP.2375003	Rehabilitation of Isabela TSL (Including Aguadilla WWPS Avenue and Fomento)	2022-Q1	2024-Q1	\$19.09
WTP	CIP.2386047	Rehabilitation of Jayuya Urbano WTP and RWI	2022-Q4	2024-Q3	\$35.94
WTP	CIP.2386049	Elimination of Jayuya Canalizo WTP and RWI	2022-Q4	2025-Q3	\$29.53
WTP	CIP.2386057	Rehabilitation of Jayuya WTP and RWI	2022-Q4	2024-Q3	\$7.11
D&T-WL	CIP.2389000	Renovación Tubería 4" AP D.I. Sector Cuesta del Cementerio (FAAST) #NRW #JG .	2023-Q2	2024-Q3	\$0.78
D&T-WL	CIP.2419001	Rehabilitación al Sistema de Rio Lajas, Dorado (FAAST) #NRW #JG	2023-Q2	2024-Q3	\$3.28
WTP	CIP.2426099	Rehabilitation of Lares Indiera Alta WTP and RWI	2022-Q3	2024-Q2	\$12.48
WTP	CIP.2426100	Rehabilitation of Lares Nueva Espino WTP and RWI	2021-Q3	2022-Q1	\$28.84
WWTP	CIP.2475021	Rehabilitation of Barceloneta WWTP (FAAST- 25)	2022-Q3	2026-Q1	\$29.85
D&T-WL	CIP.2475022	Installation of Water Line at Río Utuado Bridge, Municipality of Utuado	2021-Q4	2022-Q1	\$0.91
WTP	CIP.2479001	Rehabilitation of Morovis Sur RWI	2021-Q1	2021-Q1	\$2.71
WTP	CIP.2526006	Rehabilitation of Morovis Sur WTP	2021-Q4	2022-Q3	\$44.24



Asset Category	Project #	Description	A&E	SOW	Total
			Start Quarter	Submittal Quarter	Cost Estimate
WTP	CIP.2526007	Rehabilitation of Morovis Urbano WTP	2022-Q4	2023-Q4	\$11.47
D&T-WL	CIP.2526008	Improvements to the Water Distribution System in Morovis (FAAST)	2022-Q3	2024-Q2	\$38.96
D&T-WL	CIP.2526009	Diseño/Cons. de Tubería de 4" y 2" PVC SDR-14 Sec. Los Pedrozas (FAAST) #NRW .	2023-Q2	2024-Q3	\$0.85
D&T-WL	CIP.2549000	Rehabilitation of Transmission and Distribution System at Naranjito (FAAST)	2022-Q3	2024-Q4	\$62.97
WTP	CIP.2596004	Rehabilitation of Quebradillas WTP and RWI	2022-Q2	2025-Q1	\$44.60
D&T-WL	CIP.2709001	Design and Construction of 6" WL, El Tocon Sector, Quebrada Cruz Ward, Municipality of Toa Alta	2022-Q4	2023-Q1	\$1.82
D&T-WL	CIP.2709002	Design and Construction of 4" WL, Villa Esperanza Community, Municipality of Toa Alta	2022-Q4	2024-Q3	\$3.93
TSL	CIP.2709010	Improvements to the Teefrans TSL, Municipality of Arecibo	2022-Q1	2023-Q3	\$8.93
WTP	CIP.2736005	Rehabilitation of Utuado Mameyes Limon (Arriba) WTP and RWI	2022-Q3	2025-Q2	\$20.15
WTP	CIP.2736006	Rehabilitation of Utuado Mameyes WTP and RWI	2022-Q3	2025-Q3	\$11.43
WTP	CIP.2739001	Rehabilitation of Lago Viví RWI	2021-Q3	2023-Q2	\$5.59
TSL	CIP.2755055	Rehabilitation of Vega Baja Trunk Sewer Lines (TSL)	2021-Q3	2021-Q4	\$9.59
WTP	CIP.2916002	Rehabilitation of Arecibo Superacueductos WTP	2022-Q2	2025-Q3	\$124.60
WST	CIP.3009001	Rehabilitation of Tanks Phase 1-East Region	2021-Q4	2021-Q4	\$3.90
WPS	CIP.3009103	Rehabilitation of Water Pump Stations Tanks Phase 1- East Region	2022-Q3	2023-Q1	\$9.50
WWPS	CIP.3009104	Rehabilitation of Wastewater Pump Stations Tanks Phase 1- East Region	2023-Q2	2024-Q3	\$8.07
RWW	CIP.3009106	Rehabilitation of Raw Water Wells Phase 1- Este Region	2022-Q2	2022-Q4	\$2.63
WTP	CIP.3106105	Rehabilitation of Barranquitas La Boca WTP and RWI	2023-Q2	2025-Q1	\$18.32
WTP	CIP.3106106	Rehabilitation of Barranquitas Barrancas WTP and RWI	2022-Q3	2024-Q3	\$29.72
В	CIP.3130001	PRASA Central Laboratory in Caguas (FAAST)	2021-Q1	2021-Q1	\$40.52
WWTP	CIP.3135079	Rehabilitation of Blowers in Caguas WWTP (FAAST)	2021-Q1	2021-Q4	\$5.93
WTP	CIP.3136012	Rehabilitation of Caguas Norte WTP	2022-Q3	2024-Q3	\$80.37
В	CIP.3139000	New	2021-Q1	2022-Q1	\$8.07
WWTP	CIP.3139001	Rehabilitation of Caguas WWTP (FAAST-25)	2022-Q1	2025-Q3	\$141.39
TSL	CIP.3139002	Rehabilitation of Caguas Trunk Sewer Lines (FAAST)	2021-Q3	2021-Q4	\$34.33
D&T-WL	CIP.3139004	Extension to Water System Aguas Buenas Mulas Tizas (FAAST) #NRW #JG	2023-Q2	2023-Q4	\$3.42
WTP	CIP.3156093	Rehabilitation of Río Grande El Yunque WTP	2022-Q1	2023-Q4	\$60.54



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Total Cost Estimate
WTP	CIP.3156094	Replacement of RWI at Mameyes River for the Yunque WTP	2022-Q3	2024-Q2	\$23.98
WTP	CIP.3186003	Rehabilitation of Cayey El Farallon WTP	2022-Q3	2024-Q2	\$35.33
В	CIP.3188001	Rehabilitation of Cayey Operations Office, Cayey PR	2023-Q2	2023-Q4	\$2.21
WWTP	CIP.3236247	Rehabilitation of Comerío WWTP (FAAST)	2022-Q2	2029-Q1	\$36.82
WWTP	CIP.3279001	Rehabilitation of Switchgear Fajardo WWTP (FAAST) #NRW #JG	2023-Q3	2024-Q3	\$6.84
WWTP	CIP.3305001	Improvements to Guayama WWTP (FAAST)	2021-Q1	2021-Q1	\$95.96
WWTP	CIP.3365083	Rehabilitation of Humacao Waste Water Treatment Plant (WWTP) Sludge Treatment System (STS)	2021-Q2	2021-Q3	\$12.71
WTP	CIP.3366005	Rehabilitation of Humacao WTP	2021-Q3	2028-Q2	\$5.00
WTP	CIP.3405005	Valenciano WTP Expansion (404)	2023-Q3	2025-Q3	\$75.29
D&T-WL	CIP.3405006	Valenciano Water Distribution System (404)	2023-Q3	2025-Q3	\$187.66
WTP	CIP.3405007	Valenciano Dam and RWI (404)	2023-Q3	2025-Q3	\$154.60
WWPS	CIP.3445009	Design and Build La Sabana Las Piedras WWPS	2021-Q2	2021-Q2	\$0.65
WTP	CIP.3536006	Rehabilitation Naguabo Río Blanco WTP	2022-Q1	2024-Q3	\$29.99
WWTP	CIP.3765002	Rehabilitation Vieques WWTP (FAAST)	2022-Q1	2023-Q4	\$43.96
WWTP	CIP.3785018	Rehabilitation of Yabucoa WWTP (FAAST)	2023-Q3	2026-Q2	\$13.83
R	CIP.4009000	Bauta Tunnel (FEMA 404/CDBG-MIT)	2023-Q4	2025-Q1	\$0.00
WST	CIP.4009001	Rehabilitation of Tanks Phase 1-South Region	2021-Q1	2022-Q1	\$4.48
WST & WPS	CIP.4009103	Rehabilitation of Water Pump Stations Tanks Phase 1- South Region	2022-Q3	2023-Q2	\$8.37
WWPS	CIP.4009104	Rehabilitation of Wastewater Pump Stations Tanks Phase 1- South Region	2023-Q1	2024-Q3	\$7.99
RWW	CIP.4009106	Rehabilitation of Raw Water Well Phase 1- South Region	2022-Q1	2023-Q2	\$5.10
WTP	CIP.4046010	Rehabilation of RWI Rio Añasco and Desander FEMA-406	2021-Q1	2024-Q3	\$22.06
TSL	CIP.4089000	Rehabilitation of Arroyo-Guayama Trunk Sewer Lines (FAAST)	2021-Q1	2021-Q4	\$21.99
TSL	CIP.4299000	Rehabilitation of Barriada Esperanza Guanica Trunk Sewer System	2022-Q4	2024-Q3	\$8.02
WTP	CIP.4316007	Rehabilitation of Jaguas Pasto Guayanilla WTP	2021-Q4	2024-Q2	\$16.76
WWTP	CIP.4495001	Rehabilitation or Elimination of Maunabo WWTP (FAAST-25)	2021-Q4	2024-Q2	\$53.95
WTP	CIP.4556009	Rehabilitation of Sanamuertos Orocovis WTP	2022-Q4	2024-Q4	\$14.67
D&T-WL	CIP.4559002	Replacement of WL El Gato Ward, Orocovis, PR (FAAST)	2022-Q4	2023-Q1	\$2.79
WTP	CIP.4576002	Rehabilitation of Peñuelas WTP	2023-Q3	2024-Q3	\$19.09
TSL	CIP.4589003	Rehabilitation of Ponce Trunk Sewer System (FAAST)	2021-Q2	2021-Q4	\$20.09



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Total Cost Estimate
D&T-WL	CIP.4589006	Rehabilitation of WL La Yuca Sector, Ponce, PR (FAAST)	2022-Q4	2023-Q1	\$2.48
D&T-WL	CIP.4589007	Rehabilitation of WL Sabanetas Sector, Ponce, PR (FAAST).	2023-Q2	2023-Q4	\$6.71
WTP	CIP.4646004	Raw Water Wells Closure/ Salinas WTP (FEMA-404)	2022-Q1	2024-Q3	\$47.86
TSL	CIP.4649000	Replacement of TSL Santos Amadeo, Baldorioty & Miguel Casco Urban, Salinas (FAAST)	2023-Q1	2024-Q3	\$14.37
WWTP	CIP.4695042	Rehabilitation of Santa Isabel WWTP (FAAST)	2022-Q1	2024-Q4	\$75.22
WTP	CIP.4776077	Rehabilitation of Villalba Apeadero WTP	2022-Q1	2024-Q4	\$8.63
WTP	CIP.4776078	Rehabilitation of Jagueyes Villalba WTP	2022-Q1	2023-Q4	\$15.75
WTP	CIP.4796004	Rehabilitation of Yauco Río Prieto WTP	2023-Q2	2025-Q1	\$26.84
WST	CIP.5009001	Rehabilitation of Tanks Phase 1-West Region	2022-Q1	2022-Q4	\$2.75
WPS	CIP.5009103	Rehabilitation of Water Pump Stations Tanks Phase 1- West Region	2023-Q1	2025-Q1	\$7.30
WWPS	CIP.5009104	Rehabilitation of Wastewater Pump Stations Tanks Phase 1- West Region	2023-Q1	2025-Q1	\$13.41
RWW	CIP.5009106	Rehabilitation of Raw Water Well Phase 1- West Region	2022-Q3	2024-Q2	\$4.17
WWTP	CIP.5035001	Rehabilitation of Aguada WWTP (FAAST-25)	2022-Q2	2029-Q3	\$52.24
WTP	CIP.5036006	Rehabilitation Aguadilla Montaña WTP	2023-Q2	2025-Q2	\$75.03
D&T-WL	CIP.5129001	Design & Build Installation of 4" WL Betances Community, Llanos Tuna Ward, Cabo Rojo (FAAST) #NRW #JG	2023-Q2	2024-Q4	\$0.97
WWTP	CIP.5375021	Eliminación de PAS Isabela (LB-J 17) (FEMA- 406)	2021-Q2	2024-Q4	\$109.20
R	CIP.5376001	Repair of Geosynthetic Membranes in Lago Regulador in Isabela	2021-Q2	2021-Q2	\$25.82
WTP	CIP.5379002	Guajataca Floating RWI	2022-Q1	2022-Q3	\$8.23
WWTP	CIP.5415031	Rehabilitation of Lajas WWTP (FAAST)	2022-Q2	2025-Q1	\$15.80
WTP	CIP.5486006	Rehabilitation of Monte del Estado Maricao WTP	2022-Q3	2024-Q2	\$11.64
WTP	CIP.5486007	Rehabilitation of Maricao WTP	2023-Q2	2025-Q1	\$13.46
WTP	CIP.5489001	Rehabilitation of Maricao Monte del Estado RWI	2022-Q3	2024-Q2	\$11.50
WWTP	CIP.5505028	Rehabilitation of Mayaguez WWTP (FAAST-25)	2021-Q2	2023-Q4	\$123.34
WTP	CIP.5506044	Rehabilitation of Miradero Mayagüez RWI	2022-Q1	2024-Q2	\$51.23
WTP	CIP.5506046	Rehabilitation of Ponce de Leon Mayaguez WTP	2023-Q1	2024-Q4	\$40.92
WTP	CIP.5506047	Rehabilitation of Miradero Mayaguez WTP	2022-Q3	2025-Q1	\$47.04
TSL	CIP.5509001	Rehabilitation of Hormigueros and Mayaguez Trunk Sewer Lines (FAAST)	2022-Q1	2021-Q4	\$33.10
00	CIP.5509105	Rehabilitation of Mayaguez Ocean Outfall	2023-Q1	2025-Q2	\$26.99
D&T-WL	CIP.5609001	Installation of 12" WL PR-115, Rincón (FAAST)	2023-Q3	2024-Q4	\$8.96



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Total Cost Estimate
TSL	CIP.5685000	Replacement of Trunk Sewer Lines (TSL) in San Sebastián (FAAST)	2022-Q4	2025-Q3	\$19.15
WM	CIP.6009002	Water Meters Pilot Project (FAAST)	2021-Q3	2021-Q4	\$4.12
D&T-WL	CIP.7349002	Hatillo -Nuevo Sistema de Dis. Bo. Campo Alegre, Sectores 10 #NRW #JG (FAAST)	2022-Q3	2024-Q2	\$11.93
D	CIP.7776071	Rehabilitation of Toa Vaca Dam	2021-Q2	2024-Q3	\$7.19
D&T-WL	Several East Region	Replacement of Water Pipelines at East Region Phase 1 (CIP-3046007- Sumideros Ward, Aguas Buenas; CIP-3136015-Urb. Mirador, Caguas; CIP-3185018-Replacement of 4", Maton Arriba Ward, Calle Jorge Rochi, Cayey; CIP-3185019- PR-1 Km. 61, Maton C1Arriba Ward, Cayey; CIP-3279002-Damajagua Ward, Fajardo; CIP- 3279003- PR-978, Ceiba; CIP-3279004-PR-976, Volatín Ward, Fajardo)	2023-Q2	2023-Q4	\$12.05
D&T-WL	Several Metro Region	Replacement of Water Pipelines at Metro Region Phase 1 (CIP-1159001-Urb. Loiza Valley, Canóvanas; CIP-1169002-Urb. Villa Fontana, Carolina; CIP-1665120-Urb. Country Club, San Juan; ; CIP-1669101- Urb. Country Club, Carolina; CIP-1019003 Ave. Juan Ponce de Leon, Bo. Amelia)	2023-Q2	2024-Q2	\$16.09
D&T-WL	Several North Region	Replacement of Water Pipelines at North Region Phase 1(CIP-2071001 La Pica, El Peje and Sabana Hoyos, Vega Alta; CIP-2389001- Tetuan III, Jayuya; CIP-2479000 Sector Boquillas,Manatí.)	2023-Q2	2024-Q2	\$7.41
D&T-WL	Several South Region	Replacement of Water Pipelines at South Region Phase 1 (CIP-4089001- Buena Vista Sector, Arroyo; CIP-4229003- PR-155 Sector Farallones, Coamo ; CIP-4229004- PR-150 Santa Catalina and San Ildefonso, Coamo; CIP-4319001- Indios Ward, Guayanilla; CIP-4399000- Collores Sector PR 512, Juana Diaz; CIP-4779001-RLimón Sector, Villalba; CIP-4779002- Chichón Sector, Villalba)	2023-Q2	2024-Q1	\$25.78
D&T-WL	Several West Region	Replacement of Water Pipelines at West Region Phase 1 (CIP-5069000-Parcelas Aqlas Aquilino, Añasco; CIP- 5379000-Chevín Sector, Isabela; CIP-5509000- París Ward, Mayaguez ;CIP- 5579003- PR-412, Corea Sector, Rincón;CIP- 5609002- Camino Blanco Black Eagle, Rincón ;CIP-5609004- PR-412, Rincón; CIP-5639000- Azucena and Parcela Lluveras, Sabana Grand;CIP-5685006- Villa Rita , San Sebastián)	2023-Q2	2023-Q4	\$29.81



# 1.5 Mid- Term Projects Profile (2024-2027)

The mid-term priority category comprises 62 projects that should begin 30% A & E design in 2024, 2025, 2026, and 2027 (natural years). The cumulative investment on the projects expected to begin A & E within this time horizon is **\$564 Million**. Figure 1-5 illustrates the breakdown of cumulative investment by asset category for projects commencing during this period.

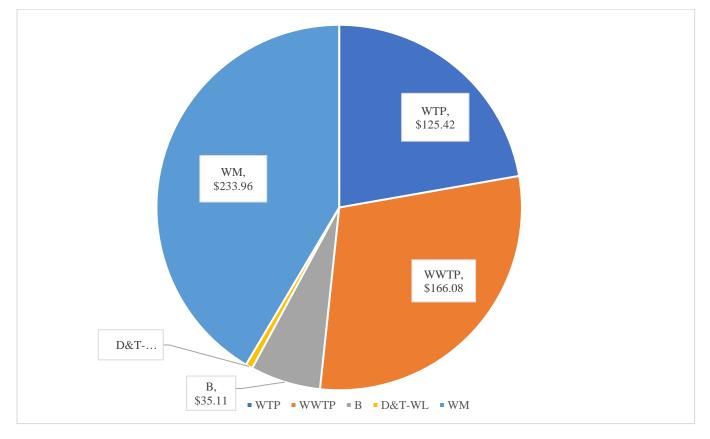


Figure 1-5: Total Estimated Cost by Asset Category for Mid-Term Projects(\$M)

Table 1-6 provides a representative sample of notable projects slated to commence during this period.



Asset Project # Category R CIP.1001001 Metropolit	Description	A&E Start Quarter	SOW Submittal	Total Cost Estimate
		Quarter		Estimate
R CIP 1001001 Metropolit			Quarter	
(406)	an Multi- Reservoir System (FEMA)	2025-Q3	2028-Q3	\$2.00
	S Bayamón Panels and Clarifiers PR (FAAST).	2024-Q3	2025-Q3	\$30.00
	o 1 Pump Station Microgrid PR (FEMA-406)	2024-Q2	2025-Q2	\$26.65
WTP CIP.1156005 Rehabilitat RWI	ion of Canóvanas Nueva WTP and	2027-Q1	2027-Q4	\$13.00
Guaynabo,	Water Treatment Plant-Microgrid, PR (FEMA-406)	2024-Q1	2025-Q1	\$7.32
WWTas W 406)	egional WWTP & Torrecillas WTP Microgrid Loiza, PR (FEMA-	2024-Q2	2025-Q2	\$26.63
San Juan, I	S Puerto Nuevo Panels and Clarifiers PR (FAAST)	2024-Q3	2025-Q3	\$30.00
B CIP.1669003 Rehabilitat	ion of PRASA Main Building (Sede)	2024-Q1	2025-Q1	\$2.21
	evas WTP & Cupey PS Microgrid to, PR (FEMA-406)	2024-Q2	2025-Q2	\$51.87
	ents to La Pica, El Peje, and Sabana ter Distribution System, Municipality ta	2026-Q3	2026-Q2	\$2.63
	a Regional WWTP Microgrid a,PR (FEMA-406)	2024-Q2	2024-Q4	\$58.15
WTP CIP.2386048 Elimination	n of Jayuya La Pica WTP and RWI	2026-Q4	2027-Q3	\$6.67
	ción Raw Water Intake Lares Espino s, PR (FEMA-406)	2024-Q2	2025-Q1	\$6.45
WWTP CIP.2545006 Rehabilitat	ion of Naranjito WWTP	2027-Q2	2028-Q1	\$10.25
WTP CIP.2555016 Raw Water (FEMA-40	Intake Sana Muertos Orocovis, PR 6) .	2024-Q2	2025-Q3	\$6.79
WTP CIP.2595016 Quebradill (FEMA-40	as WTP Microgrid Quebradillas, PR 6)	2024-Q2	2025-Q1	\$8.78
WWTP CIP.3056002 Rehabilitat	ion of Aibonito WWTP (FAAST)	2026-Q4	2027-Q3	\$12.00
WWTP CIP.3105032 Rehabilitat	ion of Barranquitas WWTP (FAAST)	2027-Q1	2028-Q1	\$9.42
WTP CIP.3106104 Rehabilitat	ion of Barranquitas WTP and RWI	2025-Q1	2026-Q1	\$7.34
	entral Laboratory, Caguas-Microgrid R (FEMA-406)	2024-Q2	2025-Q3	\$17.95
WTP CIP.3135018 Caguas No (FEMA-40	rte WTP Microgrid Caguas, PR 6)	2024-Q1	2025-Q1	\$20.38
406)	WTP Microgrid Caguas, PR (FEMA-	2024-Q2	2025-Q1	\$58.15
WTP CIP.3136013 Rehabilitat	ion of Caguas Sur WTP	2025-Q4	2026-Q3	\$9.42
WWTP CIP.3185033 Rehabilitat	ion of Cayey WWTP (FAAST-25)	2026-Q1	2027-Q2	\$21.96
WTP CIP.3186002 Rehabilitat	ion of Cayey Urbana WTP	2025-Q1	2026-Q1	\$11.28

# Table 1-6: Mid-Term (2024-2027) Notable Projects



Asset	Project #	Description	A&E Start	SOW	Total Cost
Category			Quarter	Submittal Quarter	Estimate
WWTP	CIP.3195016	Cayey Regional WWTP Microgrid Cayey, PR (FEMA-406)	2024-Q2	2025-Q1	\$24.10
WTP	CIP.3239005	Rehabilitation of Comerío WTP (FAAST)	2024-Q1	2025-Q2	\$10.22
WWTP	CIP.3275017	Fajardo Regional WWTP Microgrid Fajardo,PR (FEMA-406)	2024-Q2	2025-Q1	\$32.93
WTP	CIP.3275019	Fajardo WTP & Dam Microgrid Fajardo, PR (FEMA-406)	2024-Q2	2025-Q1	\$32.93
WTP	CIP.3276053	Rehabilitation of Fajardo WTP	2024-Q3	2025-Q2	\$11.51
WWPS	CIP.3365085	Elimination of WWPS Buxo, Humacao PR (Proposed 406)	2025-Q2	2026-Q1	\$1.04
WWTP	CIP.3366001	Rehabilitation of Humacao WWTP	2024-Q3	2025-Q2	\$25.20
WTP	CIP.3466005	Rehabilitation of Luquillo-Sabana WTP	2027-Q1	2027-Q4	\$11.28
WTP	CIP.3535016	Río Blanco WTP Microgrid Naguabo, PR (FEMA-406)	2024-Q2	2025-Q1	\$51.81
WTP	CIP.3615017	El Yunque WTP Microgrid Río Grande, PR (FEMA-406)	2024-Q2	2025-Q1	\$32.93
WWTP	CIP.3755016	Vieques WWTP Microgrid Vieques, PR (FEMA-406)	2024-Q1	2025-Q1	\$11.30
WTP	CIP.4016008	Rehabilitation of Adjuntas Olimpia WTP	2025-Q4	2026-Q4	\$8.74
WTP	CIP.4016012	Rehabilitation of Adjuntas Guilarte WTP	2024-Q1	2025-Q3	\$6.73
WWTP	CIP.4305016	Guayama Regional WWTP Microgrid Guayama, PR (FEMA-406)	2024-Q2	2025-Q1	\$32.93
WWPS	CIP.4495016	Maunabo WWPS & Guardarraya WWPS Microgrid Maunabo, PR (FEMA-406) .	2024-Q1	2025-Q1	\$6.06
WWTP	CIP.4585018	Ponce Regional WWTP Microgrid Ponce, PR (FEMA_406)	2024-Q2	2025-Q1	\$26.63
WWTP	CIP.4585096	Rehabilitation of Ponce WWTP (FAAST-25)	2025-Q2	2027-Q3	\$22.80
WWTP	CIP.4685016	Santa Isabel WWTP Microgrid Santa Isabel, PR (FEMA-406)	2024-Q1	2025-Q1	\$20.32
WTP	CIP.5035016	Río Culebrinas Raw Water Intake/Dam Microgrid Aguadilla, PR (FEMA-406)	2024-Q2	2025-Q2	\$58.21
WPS	CIP.5035017	Calero Reservoir Dam (Calero Raw Water PS) Microgrid Aguadilla, PR (FEMA-406)	-	2025-Q2	\$32.96
WPS	CIP.5065016	Río Añasco Raw Water Pump Station Microgrid Añasco, PR (FEMA-406)	2024-Q2	2025-Q2	\$51.87
R	CIP.5066000	Casey Reservoir (Proposed 406)	2024-Q3	2027-Q3	\$2.00
D&T-WL	CIP.5067002	Improvements to Water System Community Del Hoyo de los Feos, Añasco (FAAST)	2027-Q1	2027-Q4	\$0.84
WWTP	CIP.5089000	Rehabilitation of Las Marías WWTP (FAAST- 25)	2024-Q2	2025-Q2	\$3.95
WTP	CIP.5375018	Isabela Urbana WTP Microgrid Isabela, PR (FEMA-406)	2024-Q2	2024-Q4	\$20.32
WTP	CIP.5376006	Rehabilitation of Isabela Urbana WTP and RWI	2027-Q2	2028-Q1	\$7.75
WTP	CIP.5485005	Rehabilitation of Orama Maricao RWI (Proposed 406)	2024-Q1	2024-Q4	\$7.45



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Total Cost Estimate
WTP	CIP.5485016	Monte del Estado WTP Microgrid Maricao, PR (FEMA-406)	2024-Q1	2025-Q1	\$1.89
WWTP	CIP.5505016	Mayaguez WWTP & Mayaguez Sludge Compos Fmpos Facility Microgrid Mayaguez, PR(FEM	2024-Q1	2025-Q1	\$45.54
WTP	CIP.5505017	Ponce de León WTP Microgrid Mayaguez, PR (FEMA-406)	2024-Q2	2025-Q1	\$3.35
WTP	CIP.5636006	Rehabilitation of Sabana Grande WTP and RWI	2027-Q1	2027-Q4	\$6.17
WTP	CIP.5656001	Rehabilitation of Caín Alto San Germán WTP and RWI	2027-Q3	2028-Q3	\$6.18
WTP	CIP.5686045	Rehabilitation of San Sebastian WTP and RWI	2026-Q1	2027-Q1	\$8.64
В	CIP.6005000	Stand-By Power Generators	2024-Q3	2024-Q4	\$32.90
WTP	CIP.6009016	Rehabilitation to PRASA WTP Islandwide LS Project (FAAST)	2027-Q1	2027-Q2	\$0.50
WWTP	CIP.6009017	Rehabilitation to PRASA WWTP Islandwide LS Project (FAST)	2027-Q1	2027-Q2	\$0.50
WM	CIP.6009102	Water Meters Islandwide LS Project (FAAST)	2027-Q1	2027-Q3	\$812.00



# 1.6 Long-Term Projects Profile (2028 and beyond)

The long-term priority category comprises 31 projects that are expected to begin 30% A & E design in years 2028 and beyond.

The cumulative investment on the projects expected to begin A & E within this time horizon is **\$104 Million**.

Figure 1-6 illustrates the breakdown of cumulative investment by asset category for projects commencing during this period.

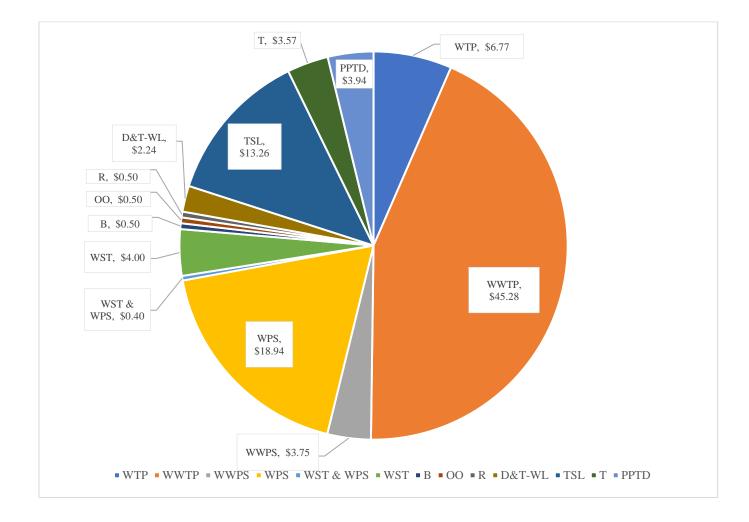






Table 1-7 provides a representative sample of notable projects slated to commence during this period.

Asset Category	Project #	Description	A&E Start	SOW	Total
			Quarter	Submittal Quarter	Cost Estimate
WWPS	CIP.1009104	Rehabilitation of Wastewater Pump Stations Tanks Phase 1- Metro Region	2028-Q2	2029-Q3	\$2.79
D	CIP.1666090	Improvements to La Plata Dam-Installation of Anchors	2028-Q2	2029-Q3	\$4.03
WPS	CIP.1669002	Rehabilitation of WPS of Puerto Nuevo and WL of 48", Municipality of San Juan (Inactive)	2043-Q2	2044-Q2	\$0.45
TSL	CIP.1705002	Rehabilitation of Bo. Sabana Seca TS, Toa Baja	2028-Q2	2028-Q3	\$11.16
TSL	CIP.1705003	Rehabilitation of Urb. Levittown TS, Toa Baja (FAASt)	2028-Q2	2028-Q2	\$0.67
WTP	CIP.2076041	Rehabilitation of Arecibo Urbano WTP	2031-Q1	2033-Q2	\$0.10
WST & WPS	CIP.2076044	MCC installation at EBTK Half a Million (FAAST).	2028-Q2	2028-Q3	\$0.40
WWTP	CIP.2269002	Elimination of Several WWTP North Region (FAASt 406)	2028-Q2	2030-Q1	\$1,019.90
WST	CIP.3009101	Rehabilitación de Tanques Fase 2 - Este (FAAST) (Inactivo)	2028-Q2	2028-Q2	\$1.61
WWPS	CIP.3009204	Rehabilitation EBAS Phase 2 - East (FAAST) Inactive	2045-Q1	2046-Q1	\$0.01
WWTP	CIP.3135010	Caguas-Elimination of PAS Borinquen,Laterales Villa Sauri y 5 EBAS (Villa Caliz)	2028-Q3	2029-Q1	\$18.11
D&T-WL	CIP.3136009	Improvements to the Water Supply System in Villa del Rey Ward in Caguas (FAAST).	2028-Q2	2028-Q3	\$0.50
WWTP	CIP.3136014	Elimination of PAS Parcealas Borinquen Caguas , PR (FEMA-406) (PL-36)	2032-Q1	2033-Q1	\$6.09
WPS	CIP.3449002	Rehabilitation of WPS Represa La Sabana Cuesta Los Jobos	2028-Q2	2029-Q1	\$10.53
WPS	CIP.3789001	Rehabilitation of WPS Represa Central Roig	2028-Q2	2029-Q1	\$7.34
WST	CIP.4009101	Rehabilitation of Tanks Phase 2-South Region	2028-Q2	2028-Q3	\$1.89
WWPS	CIP.4009204	Rehabilitation of Wastewater Pump Stations Tanks Phase 2- South Region	2045-Q1	2045-Q2	\$0.02
WPS	CIP.4317001	Construction Sector Ballinó Guayanilla WPS (FAAST)	2028-Q2	2028-Q3	\$0.63
WWTP	CIP.4555022	Rehabilitation of Orocovis WWTP (FAAST- 25)	2028-Q1	2029-Q3	\$13.71
TSL	CIP.4576008	Rehabilitation of Wastewater Lines Urb. Alturas de Peñuelas	2028-Q2	2028-Q3	\$1.43
WWTP	CIP.4795022	Rehabilitation of Yauco WWTP (FAAST)	2032-Q2	2033-Q1	\$12.77
WTP	CIP.4796005	Rehabilitation Yauco Rancheras WTP	2028-Q2	2029-Q2	\$6.67

Table 1 7: Long-Term (2028 and beyond) Notable Projects



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Total Cost Estimate
D&T-WL	CIP.5506042	Improvements to the Water Supply System in Mayaguez Mall (FAAST)	2028-Q2	2029-Q1	\$1.74
WST	CIP.6009001	Water Storage Tanks Islandwide (FAAST)	2028-Q1	2028-Q4	\$0.50
00	CIP.6009005	Rehabilitation to PRASA Ocean Outfalls Islandwide LS Project (FAST)	2028-Q1	2028-Q4	\$0.50
В	CIP.6009007	Rehabilitation to PRASA Buildings Islandwide LS Project	2028-Q1	2028-Q4	\$0.50
PPTD	CIP.6009008	Projects Pending to Defined LS Project (FAAST)	2028-Q1	2028-Q4	\$3.94
R	CIP.6009010	Reservoir Dredging Islandwide LS Project	2028-Q1	2028-Q4	\$0.50
WWTP	CIP.5685004	Rehabilitation of San Sebastián WWTP (FAAST-25)	2028-Q2	2029-Q2	\$12.75
Т	CIP.6009012	Telemetry Islandwide LS Project (FAAST)	2028-Q1	2028-Q4	\$3.57
WWPS	CIP.7688000	Elimination of Los Alamos WWPS San Sebastian	2028-Q2	2029-Q1	\$0.93



### 1.7 Program Management

PRASA has implemented project management standards and controls in accord with leading practices. In 2020 PRASA issued an RFQ/RFP to secure engineering firms to serve as the Project Management Consortiums for efficient and timely execution of the CIP, including the projects under this plan. Currently, PRASA has onboarded all the Consortiums.

PRASA's Infrastructure Office, with the assistance of the Consortiums, will implement leading practices following these components: solid centralized governance of the group of projects; a standard, rigorous process from project initiation to closeout for all projects in the plan; a centralized system to provide a single source of truth for all projects (with particular focus on scope, schedule, and budget); and standardized project controls across PRASA.



### **Chapter 2 Introduction**

The purpose of this document is to describe further the PRASA investment plan for the next ten years using the **\$4.2 Billion** funding obligated by FEMA under the Stafford Act, Section 428 Public Assistance (428) program, and BBA. The plan starts in 2021 and is projected to end in 2030.

This plan is being submitted to COR3 and FEMA to satisfy the requirement to present a plan within 90 days of the single fixed-cost grant obligation. This plan is considered a "living document." It requires updates and resubmissions to COR3 and FEMA every 90 days after the initial submission. Consequently, we have discussed with FEMA and COR3 during plan development to gain the best possible understanding of their requirements for this plan and to meet those requirements.

PRASA's FAASt Workplan is not subject to approval by COR3 or FEMA, nor does it secure the release of any obligated 428 funds. Instead, the plan serves as a working document to provide context for and support collaboration among PRASA, COR3, and FEMA in the process of developing and submitting individual projects for review, approval, and funds disbursement. Submission of this plan is an essential first step, followed by PRASA submitting individual project funding requests and beginning 30% design for 2021 projects. Now that the initial version of this plan has been completed and submitted, PRASA will begin requesting funding as soon as practicable.

This plan will include project funding from the FEMA 428 and 404 mitigation programs and HUD Community Development Block Grant Disaster Recovery (CDBG-DR) program.

This document will provide the requirements under their 428 work plan to COR3 and FEMA, such as:

- An overview of PRASA's infrastructure investment strategy to provide context for the selection of projects in the plan.
- A prioritized list of the infrastructure projects that contain the plan with brief descriptions and class 5 cost estimates.



- A section that shows the estimated timing of crucial project milestones by quarter for 2021-2023 and by year for 2024-2030.
- An overview of PRASA's instrumental management of the infrastructure controls.

The projects identified in this plan and their associated schedule provide a framework for sketching the work and an expected sequence for its execution. However, ten years is a long-term planning horizon, and adjustments to this FAASt Workplan are expected as long as justified with results from studies, natural events, implementation or scheduling restrictions, or other influences.

This plan is based on the most current information available to PRASA and will be updated quarterly. With this submittal, PRASA intends to execute a set of defined, effective, multi-faceted projects to improve water and wastewater infrastructure in Puerto Rico.



### **Chapter 3 PRASA's Infrastructure Investment Strategy**

### 3.1 Context

The 2017 hurricane season caused unparalleled devastation in Puerto Rico. As a result, PRASA suffered damages to water treatment facilities and other structures across the Island. After facing the damages of the 2017 events, PRASA needs to continue working to permanently repair their infrastructure with the ongoing challenges of droughts, hurricanes, earthquakes, and the current COVID-19 pandemic. PRASA has one of the most complex systems when is compared to other U.S. jurisdictions. PRASA serves more than one million customers, which is an added challenge to any decisions regarding infrastructure design and development to provide or deliver resilient and less vulnerable water and wastewater system for Puerto Rico.

Indeed, resiliency for water projects comes with the challenge of how to measure their performance. Resiliency is a topic discussed for quite some time in the water industry, but there is no official consensus measuring resiliency. Meanwhile, PRASA is committed to continuing with the recovery efforts and ensuring that future infrastructure developments consider resiliency for the significant challenges that the Island faces.

After the events of 2017, several steps set the path to transforming Puerto Rico's water system. Some of these steps include the development of PRASA's Strategic Plan 2020-2025 and PRASA's Certified Fiscal Plan(s).

These steps provide the foundation for this plan. Table 3-1 illustrates the six (6) foundational components of PRASA's FAASt Workplan.

Components	Description	
PRASA's	Since its creation in 1945, PRASA is committed to providing excellence in all aspects of	
Vision and	the operations, including drinking water production and distribution, wastewater	
Mission	collection and treatment, as well as system maintenance and customer satisfaction. The	

### Table 3-1 Foundational Components of FAASt Workplan



Components	Description
	goal of providing quality and reliable services has not diminished over time and will
	continue for years to come. As stated on its mission statement, PRASA has the mindset
	"to provide high-quality, safe, reliable, and affordable water and wastewater services to
	the people of Puerto Rico, protecting their health and the environment."
America Water	Establishes parameters to improve drinking water and water quality, infrastructure
Infrastructure	investments, enhance public health and quality of life, increase jobs, and bolster the
Act of 2018	economy, including assessing the PRASA's system vulnerability to several threats,
	including climate change and natural disasters.
Codes and	Rehabilitate, improve, and restore the water system following Codes and Industry
Industry	Standards, including the applicable PRASA design standards, contained in the Reglamento
Standards	de Normas de Diseño de la AAA.
PRASA's	Provides a roadmap to meet expected water demand over a planning horizon through the
Strategic Plan	future development with specific plans to improve the reliability of the water & water
2021-2025	waste system, beginning with the core values responsible for supporting the mission and
	vision as well as shaping the organization's culture.
PRASA	Lays out the path for operational and financial sustainability of PRASA in order to enable
<b>Certified Fiscal</b>	the transformation of Puerto Rico's water and wastewater system.
<b>Plan</b> (s)	
FEMA's	Provides a description of the damages, related causes, location, and dimensions of the
Damages	equipment and facilities damaged during the 2017 hurricanes and other catastrophic
Assessment	events.
Reports	

# 3.2 Overview of Investment Strategy

PRASA leveraged the foundational components outlined in Table 3.1 and performed additional analysis to guide the project's selection in this FAASt Workplan.



To align and guide our work, we designated five (5) investment focus areas that summarize the intent of what our projects will collectively achieve. The investment focus areas are as follows in Table 3-2.

Focus Area Description	
Public Health & Environmental Protection	<ul> <li>Ensure to provide a high-quality water service while promoting water conservation and protecting the environment and health of Puerto Rico, following:</li> <li>Safe Drinking Water Act (SDWA)</li> <li>Environmental Protection Agency (USEPA) requirements</li> <li>Puerto Rico Department of Health (PRDH)</li> <li>Clean Water Act (CWA)</li> </ul>
Codes and Industry Standards	<ul> <li>Ensure compliance with applicable laws and regulations and alignment with consensus-based codes and standards. Examples include:</li> <li>American Water Works Association (AWWA)</li> <li>National Fire Protection Association (NFPA)</li> <li>American Society of Testing and Materials (ASTM)</li> <li>National Standards Foundation (NSF)</li> <li>International Code Council (ICC)</li> <li><i>Reglamento de Normas de Diseño de la AAA</i></li> </ul>
eliability and System Resiliency Hazard Mitigation	<ul> <li>Ensure the required investment in necessary technology and infrastructure to restore the system, enhance resiliency, and establish an efficient and safe water system that provides reliability for customers.</li> <li>Ensure to provide long-term solutions that reduce the PRASA's infrastructure impact of future events and minimize disaster losses and the water system vulnerability.</li> </ul>

Table 3-2: Investm	ent Focus Areas
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### PRASA's FAASt Workplan- Twelfth Revision-April 2024

Focus Area	Description	
Modernization	Modernize and maintain PRASA's infrastructure to optimize its operational	
and	efficiency, protect public health, safeguard the environment and promote	
Maintenance	continued economic development.	



### **Chapter 4 PRASA's Prioritized Infrastructure Projects**

### 4.1 Overview

This section of PRASA's FAASt Workplan categorizes each project in the plan as to priority. The three priority categories are near-term (2021-23 start), mid-term (2024-27 start), and long-term (2028 or later start).

We established several criteria and considerations to assign projects to categories. Project start, for this prioritization, was defined as when 30% of design work should begin. A & E work is PRASA's first standard milestone for projects in its infrastructure plan.

In this section, each priority category has a description of the type of infrastructure projects contained within it, a summary overview of the number and estimated costs of projects in the priority category broken down by asset type, and an overview of the estimated timing for submission of projects to COR3 and FEMA. Following these overviews are a series of tables containing the name, brief description, estimated COR3 and FEMA submission timing, and class 5 cost estimate for each project in the priority category.

Under direction from COR3 and FEMA, PRASA will update this plan every 90 days after the initial submission and will update project details and prioritization based on coordination with COR3 and FEMA, its internal findings, and feedback from other stakeholders.

### 4.2 Asset Category Descriptions

Table 4-1 outlines each asset category contained in this plan and characterizes the types of projects found within each category:



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Asset Category	Description	
Asset Category	Description	
WTP	114 WTP, with capacity ranges from 0.14 to 100 million gallons per day	
	(MGD) with a median and average treatment capacity of 1.2 and 5.1 MGD.	
	After Hurricane María one (1) WTP was closed. The WTP are classified by	
	the type of treatment, with 1% using direct filtration, 92% dual filtration, and	
	7% membranes. These WTP and the RWI suffered widespread damages	
	caused by flooding, wind, flood transported debris, wind-driven rain, wind-	
	driven debris, falling trees, sediment accumulation, power interruption, and	
	other damages caused by the hurricane. The damaged process components and	
	equipment are necessary for these WTP's operation so the treated water may	
	be distributed as potable water. Damaged process equipment includes (but is	
	not limited to) pumps, screens, clarifiers, package plants, media filters,	
	membrane systems, chlorination systems, UV disinfection, sludge thickeners,	
	sludge filters, and sludge drying beds. Additionally, support (ancillary) items	
	required to operate the WTP were damaged, including (but not limited to)	
	instrumentation, telemetry, process control (SCADA), power (and backup	
	power), piping, channels, valves, buildings, covers, roofs. Sitewide items that	
	are part of the WTP but not associated with the process components or	
	necessary to treat the water also suffered widespread damages. Damaged non-	
	process items include (but are not limited to) fencing, lighting (interior and	
	exterior), paint, HVAC system, furnishings, materials, various non-process	
	equipment (e.g., for landscaping and housekeeping), and buildings not used	
	for the protection of process equipment.	
WWTP	51 facilities, with capacity ranges from 0.09 to 144 million gallons per day	
	(MGD) with a median and average treatment capacity of 1.3 and 10.6 MGD.	
	They are classified by the degree of treatment (primary, secondary, or tertiary)	
	and the specific type of biological treatment used. For all 51 WWTP, 12%	
	carry out only primary treatment, 70.5% carry out secondary treatment, and	

### Table 4-1: List of Assets Descriptions



#### Description

17.5% tertiary treatment. For the 51 WWTP, 12% do not carry out biological treatment (primary treatment only), 59% use activated sludge, 14% use trickling filters, and 14% use biological nutrient removal. One WWTP uses rotating biological discs for biological treatment. These WWTPs suffered widespread damages caused by flooding, wind, flood transported debris, wind-driven rain, wind-driven debris, falling trees, sediment accumulation, power interruption, and other damages caused by the hurricane. The damaged process components and equipment are necessary for these WWTPs, so the treated wastewater may be discharged to surface waters. Damaged process equipment includes (but is not limited to) pumps, influent structures, screens, grit removal, primary clarifiers, activated sludge systems, oxidation ditches, package plants, trickling filters, secondary clarifiers, coarse media filters, chlorination/dichlorination systems, UV disinfection, sludge thickeners, anaerobic and aerobic digesters, sludge filters, and sludge drying beds. Additionally, support (ancillary) items required to operate the WWTP were damaged, including (but not limited to) instrumentation, telemetry, process control (SCADA), power (and backup power), piping, channels, valves, buildings, covers, and roofs. Sitewide items that are part of the WWTP but not associated with the process components or necessary to treat the wastewater also suffered widespread damages. Damaged non-process items include (but are not limited to) fencing, lighting, paint, HVAC system, furnishings, materials, various non-process equipment (e.g., for landscaping and housekeeping), and buildings not used for the protection of process equipment.

WWPS 799 WWPS, also called wastewater lift stations, are used to deliver wastewater collected in the trunk sewers from a lower to a higher elevation through a force main. The force main allows the wastewater to flow by gravity



#### Description

to the WWTP or another WWPS. The wastewater is usually stored in and pumped from an underground storage pit called a wet well. These WWPS suffered widespread damages caused by flooding, wind, flood transported debris, wind-driven rain, wind-driven debris, falling trees, sediment accumulation, power interruption, and other damages caused by the hurricane. The damaged components and equipment are necessary for the operation of these WWPS that deliver wastewater to the WWTP. Damaged process equipment includes (but is not limited to) pumps, instrumentation, telemetry, process control, power (and backup power), piping, valves, buildings, covers, and roofs. Items that are part of the WWPSs but not associated with the process components or necessary to deliver the wastewater also suffered widespread damages include (but are not limited to) fencing, lighting, paint, HVAC system, various non-process equipment (e.g., for landscaping and housekeeping), and buildings not used specifically for the protection of process equipment.

WPS

468 WPS, used to deliver water to WST, WTP, and the drinking water distribution system. WPS is required when there is insufficient pressure to deliver the water by gravity alone. WPS can deliver raw untreated water to a WTP or treated potable water to the distribution system, including WST. These WPS suffered widespread damages caused by flooding, wind, flood transported debris, wind-driven rain, wind-driven debris, falling trees, sediment accumulation, power interruption, and other damages caused by the hurricane. The damaged components and equipment are necessary for the operation of these WPS used to deliver water. Damaged equipment includes (but is not limited to) pumps, motors, valves, piping, instrumentation, telemetry, process control, and power. Items that are part of the WPS facilities but not directly associated with the process components or necessary to deliver



Asset Category	Description	
	the water also suffered widespread damages including, (but not limited to)	
	fencing, lighting, paint, HVAC system, various non-process equipment (e.g.,	
	for landscaping and housekeeping), and parts of the building not used	
	specifically for the protection of process equipment.	
WST & WPS	808 WST & WPS, used when both the water storage tank and the water	
	pumping station are located together in a single site. These contain pumps and	
	motors, valves, piping (both buried and above ground), instrumentation,	
	telemetry, controls, power, and a protective building or enclosure. The water	
	storage tank also requires a check valve to keeps water from flowing back into	
	the treatment plant and overflow piping to protect the storage tank from being	
	overfilled. These WST & WPS suffered widespread damages caused by	
	flooding, wind, flood transported debris, wind-driven rain, wind-driven debris,	
	falling trees, sediment accumulation, power interruption, and other damages	
	caused by the hurricane. The damaged components and equipment are	
	necessary for the operation of the WST & WPS that store and deliver treated	
	potable water. Damaged equipment includes (but is not limited to) pumps,	
	motors, valves, check-valves, piping, instrumentation, telemetry, process	
	control, power, tank roofing membrane, roof tank access hatches, roof access	
	ladders, and safety cages. Items that are part of the WST & WPS facilities but	
	not directly associated with the process components or necessary to store and	
	deliver the water also suffered widespread damages including, (but not limited	
	to) fencing, lighting (interior and exterior), paint, HVAC system, various non-	
	process equipment (e.g., for landscaping and housekeeping), and buildings or	
	parts of the building not used for the protection of process equipment.	
WST	997 WST is used to store treated potable water to use on-demand. The	
	storage also provides extra capacity in case of a failure of the water treatment	
	plant. The WST is usually elevated above the drinking water distribution	



### Description

	system to provide sufficient pressure for distribution. The WST also requires
	a check valve to keep water from flowing back into the source and overflow
	piping to protect the WST from being overfilled. These WST suffered
	widespread damages caused by flooding, wind, flood transported debris,
	wind-driven rain, wind-driven debris, falling trees, sediment accumulation,
	power interruption, and other damages caused by the hurricane. The
	damaged components and equipment are necessary for the operation of these
	WSTs used to store raw water. Damaged equipment includes (but is not
	limited to) check-valves, piping, instrumentation, telemetry, process control,
	power (and backup power), tank roofing membrane, roof tank access
	hatches, roof access ladders, and safety cages. Items that are part of the WST
	facilities but not directly associated with the process components or
	necessary to deliver the water also suffered widespread damages including,
	(but not limited to) fencing, lighting, paint, HVAC system, various non-
	process equipment (e.g., for landscaping and housekeeping), and buildings
	not used specifically for the protection of process equipment.
Ocean Outfalls	PRASA owns and operates twelve (12) Ocean Outfall Diffuser Systems. The
(00)	up-stream treatment plants discharge treated effluent through a piping system
	terminating in a high-rate diffuser (herein system). The systems typically
	extend from 1/4 mile to 3/4 miles offshore and terminate with rate diffusers. The
	piping system is buried and has a rock protection layer. The diffusers vary
	from a straight line to a branched configuration (Tor V) with risers and ported
	outlets that are exposed. Ported outlets disperse the effluent at an average
	depth between 75 to 150 feet below low water sea level. Wave action and
	underwater currents developed from Hurricane-force winds (María) caused
	erosion and displacement of the facility (s).



#### Description

Dams (D) PRASA operates and maintains eight (8) major Dams throughout Puerto Rico. La Plata in the North Region, Carraízo and Las Curías in the Metro Region, Toa Vaca in the South Region, Cidra, Rio Blanco and Fajardo in the East Region and Lago Regulador de Isabela in the West Region. La Plata and Carraízo are concrete dams with gated controlled spillways. Cidra is a concrete dam with an ungated overflow-type spillway. Toa Vaca is an earth/rock embankment dam with a gated controlled spillway. Las Curías, Rio Blanco and Fajardo are earth/rock embankment dams with ungated overflowtype spillway. For these facilities, the water source is a tributary. In the case of La Plata, Carraízo, Las Curías, Toa Vaca, and Cidra, rivers flow directly into the reservoirs. In the case of Rio Blanco and Fajardo there is an Intake Structure at the rivers that collects and supplies raw water to the reservoirs through a pipe. The primary purpose of all these reservoirs, formed by dams, is storing, and collecting raw water for its supply to Water Treatment Plants (except for Las Curías). Some of the damages on the Island Wide Dams were as follow: damages on Actuators, Antennas, Dam Alarms, Cameras, Controls, Doors, A/C Units, Electrical Components, Fencing, Floodgate Components, Floors, Geotextile for Embankment, Intake Components (Slide Gates), Lighting, Motors, Machine Elements, Pavement, Pumps, Reservoir Air Injection System, Riprap Armoring for Embankment, Roofs, Slope Failure (Erosion/Scouring), Valves, Walls, and Windows. **Reservoirs** (R) PRASA has eight main reservoirs across Puerto Rico and multiple other surface water storage facilities (lakes and basins). The reservoirs are created by impounding (capturing) surface water runoff with concrete or embankment dams. The current purpose of these facilities is to store water for its raw water supply to water treatment plants, providing potable water to the public. Due to

the disaster event, heavy sedimentation impacted these four reservoirs: Toa



Asset Category	Description	
	Vaca, Cidra, Carraízo, and La Plata. Additionally, one (1) surface water	
	storage facility (lake), Lago Regulador de Isabela has some scour damages	
	due to María Hurricane. As part of PRASA's FAASt Workplan, the target is	
	to remove sediments deposited in the assets and repair the facility lake -Lago	
	Regulador de Isabela.	
<b>Buildings (B)</b>	PRASA manages 91 building facilities grouped by the function: Commercial,	
	Operational, Laboratory, Administrative, Warehouse, and Maintenance. The	
	facilities suffered widespread damages caused by wind-driven rain, wind-	
	driven debris, flooding, flood transported debris, the impact from fallen trees,	
	ground erosion, and other hurricane-related impacts. Damages include roof	
	cover breakage, delamination, and in some instances, total loss of roofing	
	systems which allowed continuous water infiltration. Hurricane conditions	
	also caused the forceful removal of windows and doors, which further	
	contributed to water infiltration and caused violent internal wind pressure,	
	resulting in further structural damage. Water infiltration, structural failure, and	
	invasive wind caused secondary damage to interior building components, such	
	as lighting, furnishings, finish materials, equipment, heating, ventilation, air	
	conditioning (HVAC) systems, electrical systems, fire alarm systems,	
	suspended ceiling systems, and floor coverings. Sustained power loss, caused	
	by island-wide electrical utilities' total failure, resulted in a lack of humidity	
	control inside the buildings, which allowed mold to grow in gypsum board	
	walls, ductwork, throughout building insulation, and other components. High	
	winds, wind-driven rain, and windblown debris damaged paint, exterior wall	
	fixtures, antennas, and other exterior elements. The extreme conditions also	
	damaged exterior site components such as lighting poles, fences, gates, and	
	the groundwork.	



#### Description

**Raw Water** PRASA owns 269 Raw Water Wells, used to extract groundwater by Wells (RWW) submersible pumps that deliver the raw water to the surface through a pipe casing. The concrete sealing, which surrounds the metal pipe, and a concrete wellhead at the surface protect the well. The extracted raw water may require treatment before being used as drinking (potable) water. The completion of treatment requires either using on-site disinfection or at a WTP. The raw or disinfected water can be delivered to a Water Storage Tank (WST) or delivered directly to a WTP. If the WTP is at a higher elevation, a Water Pumping Station (WPS) will deliver the raw water to the WTP. These Wells suffered widespread damages caused by flooding, wind, flood transported debris, wind-driven rain, wind-driven debris, falling trees, sediment accumulation, power interruption, and other damages caused by the hurricane. The damaged components and equipment are necessary for these Wells' operations that deliver raw water to the WTP or WST. Damaged process equipment includes (but is not limited to) pumps, instrumentation, chlorinators, telemetry, process control, power (and backup power), piping, valves, buildings, covers, and roofs. Items that are part of the Well facilities but not directly associated with the process components or necessary to deliver the water also suffered widespread damages including, (but not limited to) fencing, lighting, paint, HVAC system, various non-process equipment (e.g., for landscaping and housekeeping), and buildings not used specifically for the protection of process equipment. Transmission It consists of an estimated 15,148 miles of potable water lines and water and distribution lines in diameters ranging from 1" to 84" and in a wide variety of **Distribution** materials. The water transmission lines are pipes, valves, air relief valves, and meters that deliver the raw, untreated water to the WTP. The Water Water Lines (T&D-WL)Distribution Lines are a series of pipes, valves, air relief valves, fire hydrants,



Asset Category	Description
	and water meters that deliver the treated potable water from the WTP to the
	consumers. These water lines suffered widespread damages caused by erosion,
	flooding, flood transported debris, wind-driven rain, wind-driven debris,
	falling and uprooted trees, sediment accumulation, power interruption, and
	other damages caused by the hurricane.
Water Meters	872,596 each of the WM are part of the Potable Water Lines Distribution. A
(WM)	water meter or hydrometer is a device that allows for counting the volume of
	water passing through it. It is often used in water supply conductions of
	residential and industrial installations to make charges to users. These Water
	Meters suffered widespread damages to the strainers (filters), metering
	pistons, and non-return (backflow prevention) valves. The hurricane caused
	blockage and accumulation of debris and sediment by interruption of service,
	significant fluctuations in pressure, water hammer, backflow, and other
	damages. The damaged components and equipment are necessary for these
	Water Meters to accurately measure the flow of and allow passage of potable
	water delivered to the consumer.
Trunk Sewer	TSL's consist of an estimated 5,994 miles of sewer pipes in diameters ranging
Lines (TSL)	from 4'to 90" and in a wide variety of materials. The sewer system collects
	sewage and wastewater from households, commercial businesses, and
	industries and delivers the wastewater to a wastewater treatment plant
	(WWTP) through a series of pipes. Maintenance holes connect this series of
	pipes. These concrete sewer pipes suffered widespread damages caused by
	flooding, wind, flood transported debris, wind-driven rain, wind-driven debris,
	falling trees, sediment accumulation, power interruption, and other damages
	caused by the hurricane. The damaged components and equipment are
	necessary for the sewer system's operation that delivers wastewater to the
	WWTP. Damaged equipment includes (but is not limited to) pipes (gravity



Asset Category	Description
	and pressure), maintenance holes, risers, covers, siphons, pipe supports, and
	eroded topsoil and roadways.
Telemetry (T)	Telemetry System along with PRASA facilities, WTP, WWTP, WWPS, WPS, WST,
	WST & WPS, and RWW Islandwide. The telemetry system, usually done by
	wireless communication, can also be done through other means such as
	telephone, computer networks, fiber optic link, among others. Ranging from
	motorsport, aviation, astrology, agriculture, the oil industry, medicine, and
	even biology, telemetry has various utilities. Telemetry aims to allow the
	mediation of physical or chemical magnitudes, know the state of processes
	and systems, and remotely control the operation, correct errors, and send the
	information collected towards an information system for use and benefit.
	Telemetry helped identify widespread damages caused by hurricanes along
	the island.
Projects	PRASA is evaluating other projects covered under the FEMA 428-funding obligation
Pending to	to mitigate risks along with several facilities on the system. PRASA will evaluate
determine	other projects covered under the FAASt funding obligation. PRASA will use this
(PPTD)	classification to integrate projects to be defined and/or cover contingencies of already
	approved projects.

### 4.3 Project Prioritization Approach

After identifying projects, PRASA prioritized them in groups based on safety, impact to the community, the relative complexity of the work, and regulatory requirements.

### 4.4 Near-Term Category Overview

The near-term priority category is composed of projects that have either already begun design (A &E) or are expected to do so in 2021-2023.



PRASA intends to pursue a significant proportion of its projects in the near-term for several reasons:

- 1. It is PRASA's objective to deliver results as quickly as possible.
- 2. Some projects already have preliminary engineering and are ready to proceed into the 30% design phase.
- 3. Some projects are substantial in scope and must be initiated in the near-term years.

In the following section, we provide this information on near-term priority projects; Table 4-2 explains this information.

Section	Plan Information Provided
1. Description of projects	An overview of the projects in the priority category and the approach used to designate them, organized by asset type
2. Summary of projects	Number of projects by asset category and start year, along with total dollars by asset category
3. COR3 and FEMA submission	Estimated timeline for SOW submittal to indicate the
timeline	number of projects for each year and asset category
4. List of projects	Project name, a brief description, estimated submittal timing estimated cost, and CIP # for each project included in the
	plan

### **Table 4-2: Provided Project Information**

### 4.4.1 Description of Near-Term Priority Projects

Near-term projects mainly consist of the rehabilitation of damages to PRASA assets incurred during the 2017 hurricanes. It includes all projects in the application submitted under the FEMA 428 program. PRASA's target is to rehabilitate and improve all these assets following industry standards without regard to pre-disaster conditions and restore components not



damaged by the disaster when necessary to restore the facility function. The projects included in the near-term priority are as follow:

#### WTP & WWTP

Near-term WTP & WWTP projects mainly consist of the rehabilitation of damages incurred during the 2017 hurricanes at numerous facilities. Due to these facilities' size and complexity, each facility will constitute one (1) project for this plan.

PRASA's WTP consist of 113 assets located Islandwide, including the RWI (after Hurricane Maria, one (1) WTP was closed). PRASA reported that each of the 114 WTP suffered some form of disaster damage, classified as follows: minor (6% of all 114 WTP), moderate (59%), or severe (35%). As part of this plan, PRASA includes <u>eighty -three (83)</u> WTP to be rehabilitated. As part of the near-term period, PRASA started A&E for fifty-two (52) WTP projects.

PRASA WWTP consists of 51 assets along the island. PRASA reported that each one of the facilities suffered some disaster damage: minor (23%), moderate (53%), or severe (24%). As part of this plan, PRASA includes forty-four (<u>44) WWTP</u> to be rehabilitated. As part of the near-term period, PRASA started A&E for eighteen (18) WWTP projects.

#### WWPS, WPS, WST&WPS, WST and RWW

PRASA's WWPS consists of 799 facilities throughout the island. Part of this plan is considering that at least 40% of the facilities suffered moderate or severe damages, which results in at least 320 WWPS needing rehabilitation and improvement. As part of this workplan revision, PRASA has identified <u>thirteen (13) projects</u> in this category. As part of the near-term period, PRASA started A&E for seven (7) WWPS projects.

PRASA's WPS consists of 468 facilities. Part of this plan considers that at least 20% of the facilities suffered moderate or severe damages, which will result in at least 94 WPS needing rehabilitation and improvement. As part of this workplan revision, PRASA has identified



<u>thirteen (13) projects</u> in this category. As part of the near-term period, PRASA started A&E for six (6) WPS projects.

PRASA's WST consists of 997 storage tanks located Islandwide. Part of this plan considers that at least 30% of the facilities suffered moderate or severe damages that will result in at least 300 WST needing rehabilitation or improvement. As part of this workplan revision, PRASA has identified <u>eight (8) projects</u> in this category. As part of the near-term period, PRASA started A&E for five (5) WST projects.

PRASA's WST & WPS consists of 808 assets located throughout the island. Part of this plan considers that at least 20% of the facilities suffered moderate or severe damages, which will result in at least 162 WST & WPS needing rehabilitation or improvement. In this revision, PRASA has identified <u>three (3) projects</u> in this category. As part of this revision, PRASA started two (2) projects under this category as part of the near-term period.

PRASA's RWW consists of 269 Wells located throughout PRASA's five regionals. As part of this workplan revision, PRASA has identified <u>five (5) projects</u> in this category. As part of this revision, PRASA started five (5) projects under this category as part of the near-term period.

#### Ocean Outfalls (OO)

PRASA's Ocean Outfalls consists of 12 assets, and part of this plan PRASA's target is to rehabilitate and improve all these assets following industry standards without regard to predisaster conditions and to restore components not damaged by the disaster, when necessary to restore the facility function. Currently, PRASA has identified <u>two (2) projects</u> in this category. One (1) of the projects in this category is named Rehabilitation to PRASA OO Islandwide LS Project (FAAST), which may be divided in the future into several projects. Due to the size and complexity of these facilities, each facility may constitute one project. PRASA started A&E for one (1) project in this category as part of the near-term period.



### Dams(D)

PRASA operates and maintains eight (8) major Dams throughout Puerto Rico. Part of this plan is to rehabilitate and improve all these assets following industry standards without regard to pre-disaster condition, to restore components not damaged by the disaster, and when necessary to restore the facility function. Preliminary, PRASA has identified <u>two (2)</u> <u>projects</u> under this asset. As part of the near-term period, PRASA started A&E for one (1) Dam projects.

#### **Reservoirs (R)**

PRASA has eight (8) main reservoirs throughout Puerto Rico. As part of this plan, PRASA's target is to remove sediments deposited in the assets to extend the useful life of the facilities following industry standards without regard to pre-disaster conditions. Currently, PRASA has <u>seven (7) projects</u> under this asset. As part of the near-term period, PRASA started four (4) projects, including Carraízo Reservoir Dredging and Bauta Tunnel (Proposed with CDBG-DR Funds).

#### **Buildings (B)**

PRASA manages a total of 91 building facilities throughout five (5) regional sectors on the island. Building facilities are grouped by the function of the building: Commercial, Operational, Laboratory, Administrative, Warehouse, and Maintenance. PRASA has claimed 41 building facilities, while 56 sites are not included in the asset group of the damage inventory. PRASA leases eight (8) of the 41 claimed building facilities, and of such leased facilities, PRASA will only claim building contents. Preliminary, PRASA has identified <u>eight (8) projects</u> under this asset. PRASA started four (4) projects under this category as part of the near-term period.



### **Distribution and Transmission Water Lines (D&T-WL)**

PRASA has Distribution and Transmission water lines along all the island. PRASA intends to rehabilitate and improve these assets damaged by the hurricanes following industry standards. Also, to rehabilitate or improve components not damaged, when necessary, to restore the facility function. Currently, PRASA has identified <u>forty-two (42) projects</u> under this asset, and 27 started A&E under the near-term period.

#### Water Meters (WM)

PRASA has Distribution and Transmission water lines along all the island, and as part of this system are included the WM. PRASA's target is rehabilitation and improvement of all these assets following industry standards without regard to pre-disaster conditions, to restore components not damaged by the disaster, and when necessary to restore the facility function. Preliminary, PRASA has identified under this category two (2) projects, one for a pilot project and the other for the replacement of the PRASA WM Islandwide . PRASA is planning to start the pilot project during the near-term period, and the remaining one during the midterm period.

### Trunk Sewer Lines (TSL)

PRASA has sewer lines along all the island. PRASA intends to rehabilitate and improve these assets damaged by the hurricanes following industry standards. Also, to rehabilitate or improve components not damaged, and when necessary, to restore the facility function. Currently, PRASA has identified <u>seventeen (17) projects</u> under this category. As part of the near-term period, PRASA plans to started the 14 projects under this category.

#### **Telemetry** (T)

Telemetry System is along with PRASA facilities, WTP, WWTP, WWPS, WPS, WST, WST & WPS, and RWW Islandwide. PRASA intends to rehabilitate and improve these assets.



Preliminary, PRASA has identified <u>one (1)</u> lump sum project under this asset, however, is planning to start during the long term period.

### **Projects Pending to be Defined (PPTD)**

PRASA is evaluating other projects covered under the FEMA 428-funding obligation to mitigate risks along with several facilities on the system. PRASA will evaluate other projects covered under the FAASt funding obligation. PRASA will use this classification to integrate projects to be defined and/or cover contingencies of already approved projects. Currently there is one project under this category.

### 4.4.2 Summary of Near-Term Priority Projects

The following table (Table 4-3) summarizes the near-term projects that PRASA initiated (A & E Phase) and the estimated cost by asset category:

i otal)							
Asset	A & E	A & E	A & E Start	Total	Total Cost		
Category	Start 2021	Start 2022	2023	Projects	Estimates		
				(]	(Million)		
WTP	13	28	11	52	\$	1,619.14	
WWTP	7	8	3	18	\$	794.05	
WWPS	1	2	4	7	\$	56.52	
WPS	0	3	3	6	\$	33.91	
WST & WPS	0	2	0	2	\$	13.72	
WST	3	2	0	5	\$	21.28	
RWW	0	5	0	5	\$	23.09	
В	3	0	1	4	\$	51.27	
00	0	0	1	1	\$	26.99	
D	1	0	0	1	\$	7.19	
R	2	1	1	4	\$	128.80	
D&T-WL	1	9	28	38	\$	287.44	
WM	1	0	0	1	\$	4.12	
TSL	7	6	1	14	\$	334.08	
Т	0	0	0	0	\$	0.00	
PPTD	0	0	0	0	\$	0.00	
Total	39	66	53	158	\$	3,401.61	

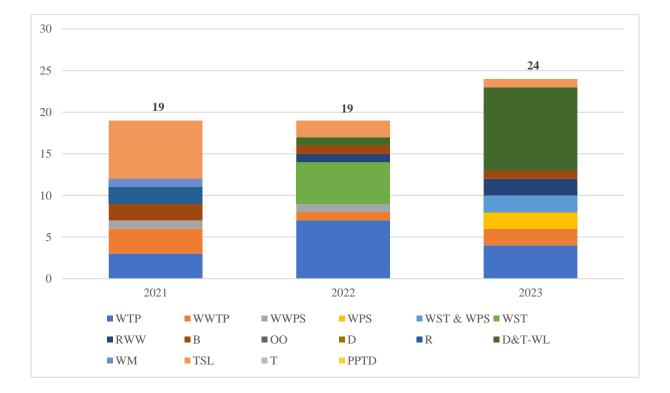
 Table 4-3: Summary of Near-Term Priority Projects (Natural Years and Cumulative Total)



### 4.4.3 COR3 and FEMA Submissions Timeline

The following chart figure shows the timeline for the individual projects submitted to COR3 and FEMA for review and approval during the near-term period. The quantity does not include the SOW revisions, and/or adjustment according to Bid Process and/or Change Orders.

# Figure 4-1: COR3 and FEMA Near-Term SOW Project Submissions by Quarter (Natural Years)



### 4.4.4 List of Near-Term Priority Projects

Table A-1 of Appendix A includes the complete list of projects in the near-term priority category. In addition, the Appendix identifies projects by asset category, brief description,



estimated timing for submission to COR3 and FEMA for review and approval, a class 5 cost estimate, and PRASA's Construction Improvement Program number.

It is important to note that the cost estimate provided does not include potential hazard mitigation funding that may be available through FEMA's 406 Hazard Mitigation Program. PRASA intends to submit applications for 406 funding with its 428 projects, where applicable. These additional funds will be critical to reinforcing the new infrastructure to protect against damage from future disaster events.

All projects in the tables below are funded through FEMA's 428 programs unless otherwise noted. Also, HUD's CDBG-DR funds will support some of the infrastructure projects contained in this plan, but the allocation of the HUD funds are yet to be tied to specific projects, which will occur in a future update of this plan.

### 4.5 Mid-Term Category Overview

The mid-term priority category is composed of projects that have either already begun design (A & E) or are expected to do so in 2024-2027.

In the sections that follow, we provide this information on near-term priority projects. Table 4-4 enumerates this information.

Section	Plan Information Provided
1.Description of projects	An overview of the projects in the priority category
	and the approach used to designate them, organized by
	asset type
2. Summary of projects	Number of projects by asset category and start year,
	along with total dollars by asset category
3. COR3 and FEMA submission	Estimated timeline for SOW submittal to indicate the
timeline	number of projects for each year and asset category

**Table 4-4: Project Information to be provided** 



Section	Plan Information Provided
4. List of projects	Project name, a brief description, estimated submittal
	timing, estimated cost, and CIP # for each project
	included in the plan

### 4.5.1 Description of Mid-Term Category Overview

Mid-term projects mainly consist of the rehabilitation of damages to PRASA assets incurred during the 2017 hurricanes. The application submitted under the FEMA 428 program, includes all projects. PRASA's target is to rehabilitate and improve all these assets following industry standards without regard to pre-disaster conditions, to restore components not damaged by the disaster, and when necessary to restore the facility function. The projects included in the mid-term priority are as described in Table 4-5 below.

### 4.5.2 Summary of Mid-Term Priority Projects

The following table (Table 4-5) summarizes the mid-term project volume and the cost estimate by asset category:



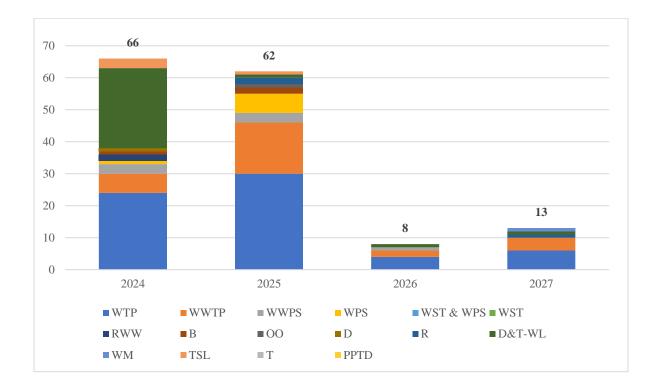
Asset Category	A & E Start 2024	A & E Start 2025	A & E Start 2026	A & E Start 2027	Total Projects	Total Cost Estimates (Million)
WTP	17	4	2	6	29	\$ 125.42
WWTP	14	1	2	3	20	\$ 166.08
WWPS	1	1	0	0	2	\$ 0.00
WPS	3	0	0	0	3	\$ 0.00
WST & WPS	0	0	0	0	0	\$ 0.00
WST	0	0	0	0	0	\$ 0.00
RWW	0	0	0	0	0	\$ 0.00
В	3	0	0	0	3	\$ 35.11
00	0	0	0	0	0	\$ 0.00
D	0	0	0	0	0	\$ 0.00
R	1	1	0	0	2	\$ 0.00
D&T-WL	0	0	1	1	2	\$ 3.46
WM	0	0	0	1	1	\$ 233.96
TSL	0	0	0	0	0	\$ 0.00
Т	0	0	0	0	0	\$ 0.00
PPTD	0	0	0	0	0	\$ 0.00
Total	39	7	5	11	62	\$ 564.03

### Table 4-5: Summary of Mid-Term Priority Projects (Natural Years and Cumulative Total)

# 4.5.3 Mid-Term COR3 and FEMA Submission Timeline

The following bar chart (Figure 4-2) shows the estimated timeline for submittal of individual projects to COR3 and FEMA for review and approval:







### 4.5.4 List of Mid-Term Priority Projects

Table A-2 of Appendix A of this document includes the complete list of projects in the mid-term priority category. In addition, the Appendix identifies projects by asset category, brief description, estimated timing for submission to COR3 and FEMA for review and approval, a class 5 cost estimate, and PRASA's Construction Improvement Program number.

It is important to note that the cost estimate provided does not include potential hazard mitigation funding that may be available through FEMA's 406 Hazard Mitigation Program. PRASA intends to submit applications for 406 funding with each of its 428 projects, where applicable. These additional funds will be critical to reinforcing the new infrastructure to protect against damage from future disaster events.



All projects in the tables below are funded through FEMA's 428 programs unless otherwise noted. Also, HUD's CDBG-DR funds will support some of the infrastructure projects in this plan. However, the allocation of the HUD funds has not yet been tied to specific projects, resulting in a future update of this plan.



# 4.6 Long- Term Category Overview

The long-term priority category comprises projects that have already begun design (A & E) or will begin in 2028-2030+.

In the sections that follow, we provide this information on near-term priority projects. Table 4-6 enumerates the information presented.

Section	Plan Information Provided			
1. Description of projects	An overview of the projects in the priority category			
	and the approach used to designate them, organized			
	by asset type.			
2. Summary of projects	Number of projects by asset category and start year,			
	along with total dollars by asset category.			
3. COR3 and FEMA submission timeline	Estimated timeline for submittal to indicate the			
	number of projects for each year and asset category.			
4. List of projects	Project name, a brief description, estimated			
	submittal timing, estimated cost, and IRP reference			
	section for each project included in the plan.			

**Table 4-6: Provided Project Information** 

### 4.6.1 Description of Long-Term Category Overview

Long-term projects mainly consist of the rehabilitation of damages to PRASA assets incurred during the 2017 hurricanes. All projects are in the application submitted under the FEMA 428 program. PRASA's target is to rehabilitate and improve all these assets following industry standards without regard to pre-disaster conditions and restore components not damaged by the disaster when necessary to restore the facility function. The projects included in the long-term priority are as described in Table 4-7 below.



### 4.6.2 Summary of Long-Term Priority Projects

The following table (Table 4-7) summarizes the volume of the long-term projects planned to be initiate (A & E Phase) and the estimated cost per asset category:

Total)								
Asset Category	A & E Start 2028	A & E Start 2029	A & E Start 2030+	Total Projects	Total Cost Estimates (Million)			
WTP	1	0	1	2	\$	6.77		
WWTP	4	0	2	6	\$	45.28		
WWPS	2	0	2	4	\$	3.75		
WPS	3	0	1	4	\$	18.94		
WST & WPS	1	0	0	1	\$	0.40		
WST	3	0	0	3	\$	4.00		
RWW	0	0	0	0	\$	0.00		
В	1	0	0	1	\$	0.50		
00	1	0	0	1	\$	0.50		
D	1	0	0	1	\$	0.00		
R	1	0	0	1	\$	0.50		
D&T-WL	2	0	0	2	\$	2.24		
WM	0	0	0	0	\$	0.00		
TSL	3	0	0	3	\$	13.26		
Т	1	0	0	1	\$	3.57		
PPTD	1	0	0	1	\$	3.94		
Total	25	0	6	31	\$	103.65		

 Table 4-7: Summary of Long-Term Priority Projects (Natural Years and Cumulative)



# 4.6.3 Long- Term COR3 and FEMA Submission Timeline

The following bar chart (Figure 4-3) shows the estimated timeline for submittal of individual projects to COR3 and FEMA for review and approval:

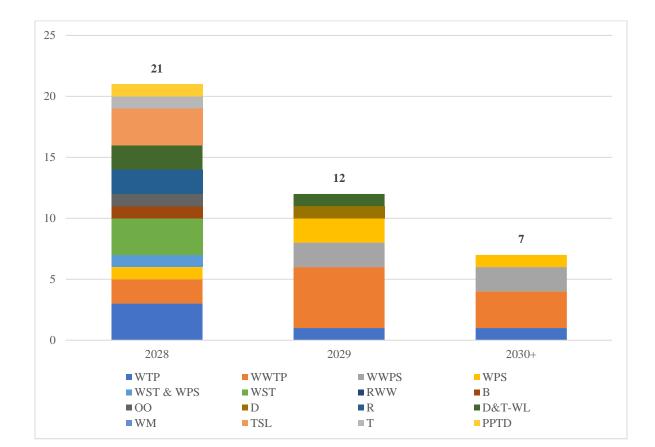


Figure 4-3: COR3 and FEMA Long-Term SOW Submissions by Quarter (Natural Years)

# 4.6.4 List of Long-Term Priority Projects

Table A-3 of Appendix A of this document included the complete list of projects in the long-term priority category. PRASA identifies projects by asset category, brief description,



estimated timing for submission to COR3 and FEMA for review and approval, a class 5 cost estimate, and PRASA's Construction Improvement Program number.

It is important to note that the cost estimate provided does not include potential hazard mitigation funding that may be available through FEMA's 406 Hazard Mitigation Program. PRASA intends to submit applications for 406 funding with each of its 428 projects, where applicable. These additional funds will be critical to reinforcing the new infrastructure to protect against damage from future disaster events.

All projects in the tables below are funded through FEMA's 428 programs unless otherwise noted. Also, HUD's CDBG-DR funds will support some of the infrastructure projects in this plan. However, the allocation of the HUD funds has not tied to specific projects, resulting in a future update of this plan.



# **Chapter 5 PRASA's Plan Schedule**

# 5.1 Timing Assumptions

The estimation of project time regarding the identification and prioritization of projects relies on the best information available to PRASA at the time of plan development, primarily that project formulation, based on the FEMA Five Phase National Workflow, will occur expeditiously.

Recognizing that PRASA does not yet have all the necessary details to develop detailed plans for its infrastructure projects and have precision on timing, COR3 and FEMA have identified this plan as a "living document," one that requires an update and resubmission every 90 days after initial submittal.

The estimated timing of projects in PRASA's FAASt Workplan will be impacted by many different factors including, but not limited to, regulatory requirements and stakeholder input, improved clarity on project requirements and approach, project review and permitting processes, the availability of both labor and material resources to execute on project design and construction tasks, and potential future disaster events impacting the island. It is expected that PRASA's FAASt Workplan, including estimated project timing, will require revision as part of these regular plan updates.

It is expected that increased clarity on project requirements and approach provided from current and future engineering studies and the completion of 30% design work will result in updates to project approach and milestone timing estimates. Also, collecting as built/record drawings, asset management planning, and document control requirements will impact the design work and the project approach.

Another set of milestone timing assumptions and potential drivers of milestone timing changes are around approval and permitting processes. These include uncertainty about the amount of time required from project submission to completion of review and receipt of approval from



COR3 and FEMA. Specifically, the timing for environmental and remediation permits for each project will depend on the type of project, location, and potential impacts on environmental/social receptors, including air, water, wetlands, natural resources, and cultural and historical resources.

Lastly, milestone timing estimates assume the required labor and materials needed to support the infrastructure plan will be available; however, shortages of either, even temporarily, may cause delays and necessitate adjustments to project milestone timing estimates.

# 5.2 Estimated Project Timing Assumptions

Each project has four major standardized milestones regarding timing:

- Begin 30% Architecture and Engineering Design (A & E)
- Submit Project to COR3 and FEMA for Review
- Begin Construction/Implementation
- Begin COR3 and FEMA Project Closeout

Appendix B shows the schedule, year by year, the work plan for major milestone initiation for the projects in the near-term, mid, and long-term periods.



#### **Chapter 6 PRASA's Management Approach**

The work needed to complete projects from their planning phase to completion requires both PRASA's internal personnel and external resources. To support PRASA in managing this plan and achieve a cost-effective way to carry out this plan, PRASA has onboard a Project Management Consortium (C). The Consortiums responsibility will be the efficient and timely execution of the CIP. All the projects included in this plan were added to PRASA's CIP.

PRASA, in coordination with the Consortiums, must establish metrics by project and monitor compliance and execution through a CIP tracking tool. Typically, the construction phase includes the highest potential for deviations in cost and time. To maintain control of these, PRASA keeps monthly track of two industry standard KPIs:

- Cost Performance Index (CPI): Measures the cost efficiency of resources committed to the project, evaluating whether the project will be completed on budget.
- Schedule Performance Index (SPI): Measures the relationship between the executed work versus the planned work, assessing whether the project will be completed on time.

The established metrics will allow for high-level monitoring of the project's execution.

PRASA Infrastructure Office, with the assistance of the Consortiums, will manage the FEMA funded projects under a governance structure that includes:

- Strong governance and oversight, by senior executives, of all projects
- Project justification is rigorous, documented, data-driven, standardized, and includes assessing costs, benefits, and alternative courses of action.
- Project authorization is grounded in a well-defined process with clear roles and responsibilities.
- Centralized approvals and oversight so that projects work together as a cohesive group of projects.



As defined by COR3, the federal grant lifecycle process (See Figure 6-1) is an end-to-end framework outlining the progression of phases and key requirements that PRASA must complete, obtain, manage, and close of Public Assistance funding sub-awards and projects.

Figure 6-1: COR3's Federal Grant Lifecycle



PRASA ensures a rigorous project management process that governs all projects with clear accountabilities, consistent standards based on leading practices for managing and governing all PRASA projects. The management process has four phases for a project (See Figure 6-2), each of which has defined deliverables and documentation required to enter the next phase. To ensure compliance with local and federal guidelines and regulations, PRASA has incorporated the key requirements and associated controls to manage FEMA funds within the project management process.







PRASA has a Management Information System with functional architecture that provides various project management features to enable management to maintain visibility around projects in each stage of the project lifecycle from project initiation to project closeout.

PRASA has incorporated the following controls to ensure FEMA fund management guidelines are met:

- A set of quality management controls based on PRASA's quality management system.
- Plus, effective project management controls and execution procedures, including risk management, based on leading practices.
- The FEMA grant and fund management control process to ensure compliance.
- The preparation of dashboards, project reports, and monthly operating sequences.



### Chapter 7 Appendix A

Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
WST	CIP.1009001	Rehabilitation of Tanks Phase 1- Metro Region	2021-Q4	2022-Q1	2022-Q3	2025-Q1	\$4,675,398.42
R	CIP.1009002	Carraizo Reservoir Sediment Control (Proposed 406)	2022-Q3	2025-Q1	2025-Q3	2027-Q1	\$49,528,460.89
WPS	CIP.1009103	Rehabilitation of Water Pump Stations Tanks Phase 1- Metro Region	2023-Q1	2025-Q2	2026-Q1	2028-Q2	\$3,389,694.08
RWW	CIP.1009106	Rehabilitation of Raw Water Well Phase 1- Metro Region	2022-Q1	2024-Q4	2025-Q3	2027-Q3	\$2,007,929.24
WTP	CIP.1016095	Rehabilitation of Guaynabo WTP	2021-Q4	2025-Q1	2025-Q4	2028-Q3	\$105,517,618.08
R	CIP.1019000	Carraizo Reservoir Dredging	2021-Q1	2021-Q2	2023-Q1	2026-Q1	\$109,897,271.93
D&T-WL	CIP.1019001	Rehabilitation of D&T-WL Bo. Sonadora, Renacer Sector and Mansiones, Municipality of Guaynabo	2023-Q2	2023-Q4	2024-Q2	2025-Q1	\$2,089,835.00
D&T-WL	CIP.1019002	Reemplazo Tubería 2" AP Sector Camino Los Bigios, Caimito (FAAST) #NRW #JG	2023-Q2	2024-Q3	2024-Q3	2025-Q3	\$596,136.93
D&T-WL	CIP.1019004	Replacement of WL Pipe, El Gato Sector at PR-834, Municipality of Guaynabo	2023-Q2	2024-Q3	2024-Q3	2025-Q3	\$935,668.06
WTP	CIP.1076003	Super Aqueduct Microgrid (Proposed 406)	2023-Q3	2025-Q1	2025-Q4	2027-Q1	97,468,259.36

### 7.1 Appendix A: Table A.1- List of PRASA Projects FAASt Near-Term





Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
D&T-WL	CIP.1115069	Replacement of Water Pipeline Sec La Pra and Los Fonsecas Bo Buena (FAAST) #NRW #JG	2023-Q2	2024-Q3	2024-Q3	2025-Q3	\$1,175,720.83
D&T-WL	CIP.1115070	Water Distribution System Com. Doña Concha, Bayamon (FAAST) #NRW #JG	2023-Q2	2024-Q3	2024-Q3	2025-Q3	\$544,888.33
D&T-WL	CIP.1115071	Water Distribution System Sec. Los Fonseca Bo. Cerro Gordo (FAAST) #NRW #JG.	2023-Q2	2024-Q3	2024-Q3	2025-Q3	\$638,813.33
WTP	CIP.1116008	Rehabilitation of Guaynabo Santa Rosa WI (FAAST-25)	2022-Q2	2024-Q2	2025-Q1	2026-Q2	\$61,345,630.21
WTP	CIP.1156004	Rehabilitation of Cubuy WTP and RWI, Municipality of Canóvanas	2023-Q1	2025-Q1	2025-Q3	2027-Q4	\$10,264,453.39
WPS	CIP.1159000	Design and Build of Rehabilitation of Water Pump Station at La Central, Municipality of Canóvanas	2023-Q2	2025-Q1	2025-Q1	2026-Q1	\$1,545,330.10
D&T-WL	CIP.1159001	Reemplazo y Renovación Tubería AP Urb. Loiza Valley (FAAST) #NRW #JG	2023-Q2	2024-Q3	2024-Q3	2025-Q3	\$1,967,963.20
WWTP	CIP.1165044	Rehabilitation of Carolina WWTP FEMA (FAAST-25)	2021-Q3	2022-Q3	2025-Q1	2026-Q4	\$82,051,836.15
TSL	CIP.1169001	Rehabilitation of Los Angeles and Loiza Pueblo Trunk Sewers (FAAST)	2021-Q3	2021-Q3	2022-Q2	2024-Q2	\$11,733,928.70
D&T-WL	CIP.1169002	Replacment of Water Pipeline Urb. Villa Fontana (FAAST) #NRW #JG	2023-Q2	2024-Q3	2024-Q3	2025-Q3	\$2,129,234.20
В	CIP.1660002	Rehabilitation of PRASA Main Building (Sede) Inspection Only	2021-Q4	2021-Q4	2022-Q2	2023-Q3	\$476,637.53
D&T-WL	CIP.1665120	Replacement of Pipe SDR14 Urb. Country Club, San Juan (FAAST) #NRW #JG	2023-Q2	2024-Q3	2024-Q3	2025-Q1	\$3,612,561.77



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
WWPS	CIP.1665900	Rehabilitation of Martín Peña WWPS (Tokio), Municipality of San Juan	2023-Q2	2025-Q2	2026-Q1	2026-Q4	\$12,987,603.95
D&T-WL	CIP.1669001	Improvements to Water Distribution System, Hollywood Hills, Municipality of San Juan	2023-Q3	2024-Q4	2025-Q3	2026-Q3	\$2,382,924.93
WTP	CIP.1709000	Enrique Ortega WTP- Raw Water Intake Power Generator (FEMA-404)	2021-Q2	2022-Q4	2025-Q1	2026-Q2	\$43,781,029.74
WTP	CIP.1726043	Rehabilitation of Sergio Cuevas WTP	2022-Q2	2024-Q4	2025-Q2	2027-Q3	\$116,657,324.88
WST	CIP.2009001	Rehabilitation of Tanks Phase 1- North Region	2022-Q1	2022-Q4	2023-Q1	2025-Q3	\$5,479,276.68
WPS	CIP.2009103	Rehabilitation of Water Pump Stations Tanks Phase 1- North Region	2022-Q2	2024-Q3	2025-Q2	2027-Q2	\$6,892,425.66
WWPS	CIP.2009104	Rehabilitation of Wastewater Pump Stations Tanks Phase 1- North Region	2022-Q2	2024-Q2	2025-Q1	2027-Q2	\$7,883,990.93
RWW	CIP.2009106	Rehabilitation of Raw Water Well Phase 1- North Region	2022-Q3	2023-Q2	2023-Q4	2026-Q1	\$9,175,034.66
WTP	CIP.2017005	Rehabilitation of Culebrinas WTP	2021-Q1	2021-Q1	2024-Q2	2027-Q1	\$110,333,672.53
WWPS	CIP.2039000	Rehabilitation of Guerrero 2 WWPS, Municipality of Aguadilla	2022-Q1	2022-Q1	2023-Q2	2024-Q4	\$5,538,308.25
D&T-WL	CIP.2071000	Improvements to Arecibo Water Distribution System (Proposed 406)	2023-Q1	2028-Q1	2028-Q3	2031-Q3	\$5,000,000.00
WWTP	CIP.2075073	Rehabilitation of Islote WWTP, Arecibo (Proposed 406)	2022-Q3	2025-Q3	2026-Q1	2027-Q3	\$118,605,083.38
WTP	CIP.2076042	Rehabilitation of Esperanza Arecibo WTP and RWI	2021-Q3	2022-Q1	2026-Q4	2028-Q2	\$20,730,322.29
WST & WPS	CIP.2079004	Improvements to Cerro Marquez WPS & 2.0 MG Tank, Municipality of Arecibo	2022-Q4	2023-Q2	2024-Q1	2025-Q2	\$5,354,525.31



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
TSL	CIP.2095052	Rehabilitation of 42 IN Trunk Sewer Line from PR-684 to the South part of Barceloneta WWTP	2021-Q3	2022-Q1	2023-Q1	2025-Q2	\$32,324,502.04
WTP	CIP.2096007	Rehabilitation of Enrique Ortega WTP	2021-Q1	2021-Q1	2024-Q1	2028-Q2	\$159,217,249.91
TSL	CIP.2149001	Rehabilitation of Camuy Trunk Sewer Lines (FAAST)	2022-Q1	2021-Q3	2023-Q4	2027-Q4	\$76,066,890.65
WTP	CIP.2206107	Rehabilitation of Ciales Fronton WTP and RWI	2021-Q4	2022-Q2	2024-Q3	2026-Q4	\$27,635,810.07
WTP	CIP.2246106	Rehabilitation of Corozal Negros RWI	2022-Q3	2024-Q1	2024-Q3	2026-Q2	\$8,007,203.86
WTP	CIP.2246116	Rehabilitation of Corozal Negros WTP	2023-Q1	2024-Q4	2025-Q3	2028-Q1	\$36,683,255.68
D&T-WL	CIP.2265016	D&B Installation of 12 in Water Pipeline PR-691, Dorado, PR (FAAST)	2023-Q4	2024-Q2	2024-Q3	2027-Q1	\$10,438,149.17
D&T-WL	CIP.2265017	Design and Build for the Rehabilitation of the Distribution System of Vega Alta & Dorado Potable Water	2023-Q3	2024-Q2	2024-Q3	2027-Q1	\$4,571,343.33
WWTP	CIP.2265030	Rehabilitation of Dorado WWTP, Dorado, PR (FAAST)	2023-Q3	2024-Q4	2025-Q2	2026-Q3	\$4,131,833.33
D&T-WL	CIP.2269000	Rehabilitacón Siste. Distrib de Dorado/Vega Alta (Dorado Twist) (FAAST) #NRW #JG	2023-Q2	2024-Q2	2025-Q1	2026-Q1	\$1,453,432.64
D&T-WL	CIP.2269001	Replacement of 4 IN Pipeline in Villa 2000 Community in Dorado	2022-Q4	2023-Q2	2023-Q4	2025-Q1	\$1,986,457.32
WPS	CIP.2329004	Design and Build of Rehabilitation of Water Pump Station at Ciales Pozas	2022-Q3	2023-Q1	2023-Q3	2025-Q2	\$5,276,655.71
WTP	CIP.2346015	Rehabilitation of Hatillo-Camuy WTP	2022-Q1	2022-Q2	2024-Q3	2027-Q1	\$52,251,017.30
D&T-WL	CIP.2346016	Replacement of 4" and 6" WL, Bayaney Ward, Municipality of Hatillo	2023-Q2	2024-Q3	2024-Q4	2025-Q3	\$1,460,964.03





Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
D&T-WL	CIP.2349003	Design and Build 16" WL, PR-119, Hatillo-Camuy	2022-Q4	2023-Q3	2024-Q1	2025-Q3	\$6,544,996.64
TSL	CIP.2375002	Trunk Sewer Lines (TSL) Isabela - Aguada (FAAST)	2021-Q4	2022-Q3	2023-Q2	2027-Q3	\$42,405,621.28
TSL	CIP.2375003	Rehabilitation of Isabela TSL (Including Aguadilla WWPS Avenue and Fomento)	2022-Q1	2024-Q1	2024-Q3	2027-Q2	\$19,090,586.73
WTP	CIP.2386047	Rehabilitation of Jayuya Urbano WTP and RWI	2022-Q4	2024-Q3	2025-Q2	2027-Q1	\$35,944,216.46
WTP	CIP.2386049	Elimination of Jayuya Canalizo WTP and RWI	2022-Q4	2025-Q3	2026-Q2	2029-Q3	\$29,529,400.47
WTP	CIP.2386057	Rehabilitation of Jayuya WTP and RWI	2022-Q4	2024-Q3	2025-Q2	2027-Q1	\$7,109,979.72
D&T-WL	CIP.2389000	Renovación Tubería 4" AP D.I. Sector Cuesta del Cementerio (FAAST) #NRW #JG	2023-Q2	2024-Q3	2024-Q3	2025-Q3	\$777,073.33
D&T-WL	CIP.2419001	Rehabilitación al Sistema de Rio Lajas, Dorado (FAAST) #NRW #JG	2023-Q2	2024-Q3	2024-Q3	2025-Q3	\$3,282,567.31
WTP	CIP.2426099	Rehabilitation of Lares Indiera Alta WTP and RWI	2022-Q3	2024-Q2	2024-Q3	2027-Q2	\$12,483,484.67
WTP	CIP.2426100	Rehabilitation of Lares Nueva Espino WTP and RWI	2021-Q3	2022-Q1	2024-Q1	2026-Q2	\$28,842,283.33
WWTP	CIP.2475021	Rehabilitation of Barceloneta WWTP (FAAST-25)	2022-Q3	2026-Q1	2026-Q4	2030-Q1	\$29,852,077.71
D&T-WL	CIP.2475022	Installation of Water Line at Río Utuado Bridge, Municipality of Utuado	2021-Q4	2022-Q1	2022-Q4	2024-Q1	\$914,336.04
WTP	CIP.2479001	Rehabilitation of Morovis Sur RWI	2021-Q1	2021-Q1	2021-Q4	2023-Q3	\$2,707,952.74
WTP	CIP.2526006	Rehabilitation of Morovis Sur WTP	2021-Q4	2022-Q3	2024-Q1	2026-Q4	\$44,235,780.38
WTP	CIP.2526007	Rehabilitation of Morovis Urbano WTP	2022-Q4	2023-Q4	2024-Q2	2026-Q2	\$11,465,289.50



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
D&T-WL	CIP.2526008	Improvements to the Water Distribution System in Morovis (FAAST)	2022-Q3	2024-Q2	2024-Q4	2027-Q4	\$38,964,594.37
D&T-WL	CIP.2526009	Diseño/Cons. de Tubería de 4" y 2" PVC SDR-14 Sec. Los Pedrozas (FAAST) #NRW .	2023-Q2	2024-Q3	2024-Q3	2025-Q3	\$850,073.27
D&T-WL	CIP.2549000	Rehabilitation of Transmission and Distribution System at Naranjito (FAAST)	2022-Q3	2024-Q4	2025-Q2	2027-Q2	\$62,968,604.52
WTP	CIP.2596004	Rehabilitation of Quebradillas WTP and RWI	2022-Q2	2025-Q1	2025-Q3	2027-Q3	\$44,597,339.53
D&T-WL	CIP.2709001	Design and Construction of 6" WL, El Tocon Sector, Quebrada Cruz Ward, Municipality of Toa Alta	2022-Q4	2023-Q1	2023-Q3	2024-Q3	\$1,824,523.77
D&T-WL	CIP.2709002	Design and Construction of 4" WL, Villa Esperanza Community, Municipality of Toa Alta	2022-Q4	2024-Q3	2024-Q3	2025-Q3	\$3,925,697.90
TSL	CIP.2709010	Improvements to the Teefrans TSL, Municipality of Arecibo	2022-Q1	2023-Q3	2024-Q1	2027-Q2	\$8,932,804.40
WTP	CIP.2736005	Rehabilitation of Utuado Mameyes Limon (Arriba) WTP and RWI	2022-Q3	2025-Q2	2026-Q1	2027-Q3	\$20,145,491.15
WTP	CIP.2736006	Rehabilitation of Utuado Mameyes WTP and RWI	2022-Q3	2025-Q3	2026-Q2	2028-Q1	\$11,427,268.38
WTP	CIP.2739001	Rehabilitation of Lago Viví RWI	2021-Q3	2023-Q2	2025-Q1	2026-Q2	\$5,593,920.19
TSL	CIP.2755055	Rehabilitation of Vega Baja Trunk Sewer Lines (TSL)	2021-Q3	2021-Q4	2023-Q2	2025-Q2	\$9,589,050.49
WTP	CIP.2916002	Rehabilitation of Arecibo Superacueductos WTP	2022-Q2	2025-Q3	2026-Q2	2029-Q1	\$124,595,945.31
WST	CIP.3009001	Rehabilitation of Tanks Phase 1-East Region	2021-Q4	2022-Q1	2023-Q2	2025-Q1	\$3,895,475.88





Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
WPS	CIP.3009103	Rehabilitation of Water Pump Stations Tanks Phase 1- East Region	2022-Q3	2023-Q1	2024-Q1	2026-Q1	\$9,502,344.59
WWPS	CIP.3009104	Rehabilitation of Wastewater Pump Stations Tanks Phase 1- East Region	2023-Q2	2024-Q3	2025-Q2	2027-Q3	\$8,065,612.53
RWW	CIP.3009106	Rehabilitation of Raw Water Wells Phase 1- Este Region	2022-Q2	2022-Q4	2023-Q3	2024-Q3	\$2,634,162.38
WTP	CIP.3106105	Rehabilitation of Barranquitas La Boca WTP and RWI	2023-Q2	2025-Q1	2025-Q4	2027-Q3	\$18,315,606.03
WTP	CIP.3106106	Rehabilitation of Barranquitas Barrancas WTP and RWI	2022-Q3	2024-Q3	2025-Q2	2027-Q1	\$29,724,113.17
В	CIP.3130001	PRASA Central Laboratory in Caguas (FAAST)	2021-Q1	2021-Q1	2020-Q4	2024-Q2	\$40,517,071.52
WWTP	CIP.3135079	Rehabilitation of Blowers in Caguas WWTP (FAAST)	2021-Q1	2021-Q4	2019-Q4	2022-Q4	\$5,933,487.32
WTP	CIP.3136012	Rehabilitation of Caguas Norte WTP	2022-Q3	2024-Q3	2025-Q2	2027-Q1	\$80,373,293.98
В	CIP.3139000	New	2021-Q1	2022-Q1	2023-Q4	2024-Q3	\$8,071,833.74
WWTP	CIP.3139001	Rehabilitation of Caguas WWTP (FAAST-25)	2022-Q1	2025-Q3	2026-Q1	2028-Q2	\$141,393,274.73
TSL	CIP.3139002	Rehabilitation of Caguas Trunk Sewer Lines (FAAST)	2021-Q3	2021-Q4	2023-Q2	2026-Q1	\$34,329,537.10
D&T-WL	CIP.3139004	Extension to Water System Aguas Buenas Mulas Tizas (FAAST) #NRW #JG	2023-Q2	2023-Q4	2024-Q2	2025-Q2	\$3,415,021.67
WTP	CIP.3156093	Rehabilitation of Río Grande El Yunque WTP	2022-Q1	2023-Q4	2024-Q2	2026-Q3	\$60,544,948.43
WTP	CIP.3156094	Replacement of RWI at Mameyes River for the Yunque WTP	2022-Q3	2024-Q2	2025-Q1	2026-Q2	\$23,983,018.93





Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
WTP	CIP.3186003	Rehabilitation of Cayey El Farallon WTP	2022-Q3	2024-Q2	2025-Q1	2026-Q1	\$35,333,027.03
В	CIP.3188001	Rehabilitation of Cayey Operations Office, Cayey PR	2023-Q2	2023-Q4	2024-Q4	2026-Q1	\$2,207,829.22
WWTP	CIP.3236247	Rehabilitation of Comerío WWTP (FAAST)	2022-Q2	2029-Q1	2029-Q4	2031-Q2	\$36,823,054.83
WWTP	CIP.3279001	Rehabilitation of Switchgear Fajardo WWTP (FAAST) #NRW #JG	2023-Q3	2024-Q3	2025-Q2	2026-Q2	\$6,841,577.18
WWTP	CIP.3305001	Improvements to Guayama WWTP (FAAST)	2021-Q1	2021-Q1	2022-Q3	2026-Q3	\$95,964,765.31
WWTP	CIP.3365083	Rehabilitation of Humacao Waste Water Treatment Plant (WWTP) Sludge Treatment System (STS)	2021-Q2	2021-Q3	2022-Q2	2024-Q4	\$12,707,763.79
WTP	CIP.3366005	Rehabilitation of Humacao WTP	2021-Q3	2028-Q2	2029-Q1	2030-Q3	\$5,000,000.00
WTP	CIP.3405005	Valenciano WTP Expansion (404)	2023-Q3	2025-Q3	2026-Q1	2029-Q2	\$75,292,675.58
D&T-WL	CIP.3405006	Valenciano Water Distribution System (404)	2023-Q3	2025-Q3	2026-Q2	2029-Q2	\$187,656,787.30
WTP	CIP.3405007	Valenciano Dam and RWI (404)	2023-Q3	2025-Q3	2026-Q2	2029-Q2	\$154,601,062.91
WWPS	CIP.3445009	Design and Build La Sabana Las Piedras WWPS	2021-Q2	2021-Q2	2020-Q4	2023-Q1	\$645,565.93
WTP	CIP.3536006	Rehabilitation Naguabo Río Blanco WTP	2022-Q1	2024-Q3	2025-Q2	2028-Q2	\$29,993,369.89
WWTP	CIP.3765002	Rehabilitation Vieques WWTP (FAAST)	2022-Q1	2023-Q4	2024-Q2	2026-Q2	\$43,964,790.19
WWTP	CIP.3785018	Rehabilitation of Yabucoa WWTP (FAAST)	2023-Q3	2026-Q2	2027-Q1	2028-Q4	\$13,834,844.62
R	CIP.4009000	Bauta Tunnel (FEMA 404/CDBG-MIT)	2023-Q4	2025-Q1	2026-Q4	2029-Q4	\$0.00
WST	CIP.4009001	Rehabilitation of Tanks Phase 1-South Region	2021-Q1	2022-Q1	2022-Q3	2024-Q2	\$4,478,253.48



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
WST & WPS	CIP.4009103	Rehabilitation of Water Pump Stations Tanks Phase 1- South Region	2022-Q3	2023-Q2	2024-Q1	2026-Q2	\$8,367,801.33
WWPS	CIP.4009104	Rehabilitation of Wastewater Pump Stations Tanks Phase 1- South Region	2023-Q1	2024-Q3	2025-Q2	2027-Q3	\$7,987,673.90
RWW	CIP.4009106	Rehabilitation of Raw Water Well Phase 1- South Region	2022-Q1	2023-Q2	2023-Q4	2026-Q1	\$5,098,835.30
WTP	CIP.4046010	Rehabilation of RWI Rio Añasco and Desander FEMA-406	2021-Q1	2024-Q3	2025-Q1	2026-Q3	\$22,058,348.44
TSL	CIP.4089000	Rehabilitation of Arroyo-Guayama Trunk Sewer Lines (FAAST)	2021-Q1	2021-Q4	2022-Q3	2025-Q1	\$21,985,067.25
TSL	CIP.4299000	Rehabilitation of Barriada Esperanza Guanica Trunk Sewer System	2022-Q4	2024-Q3	2025-Q2	2026-Q3	\$8,018,618.79
WTP	CIP.4316007	Rehabilitation of Jaguas Pasto Guayanilla WTP	2021-Q4	2024-Q2	2025-Q1	2027-Q1	\$16,759,106.79
WWTP	CIP.4495001	Rehabilitation or Elimination of Maunabo WWTP (FAAST-25)	2021-Q4	2024-Q2	2025-Q1	2028-Q3	\$53,951,904.89
WTP	CIP.4556009	Rehabilitation of Sanamuertos Orocovis WTP	2022-Q4	2024-Q4	2025-Q1	2026-Q4	\$14,665,889.10
D&T-WL	CIP.4559002	Replacement of WL El Gato Ward, Orocovis, PR (FAAST)	2022-Q4	2023-Q1	2023-Q4	2024-Q4	\$2,791,129.35
WTP	CIP.4576002	Rehabilitation of Peñuelas WTP	2023-Q3	2024-Q3	2025-Q2	2027-Q3	\$19,094,553.86
TSL	CIP.4589003	Rehabilitation of Ponce Trunk Sewer System (FAAST)	2021-Q2	2021-Q4	2022-Q3	2025-Q3	\$20,089,922.43
D&T-WL	CIP.4589006	Rehabilitation of WL La Yuca Sector, Ponce, PR (FAAST)	2022-Q4	2023-Q1	2023-Q3	2024-Q3	\$2,484,192.90
D&T-WL	CIP.4589007	Rehabilitation of WL Sabanetas Sector, Ponce, PR (FAAST).	2023-Q2	2023-Q4	2024-Q3	2025-Q3	\$6,707,127.79



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
WTP	CIP.4646004	Raw Water Wells Closure/ Salinas WTP (FEMA-404)	2022-Q1	2024-Q3	2025-Q2	2027-Q4	\$47,855,565.71
TSL	CIP.4649000	Replacement of TSL Santos Amadeo, Baldorioty & Miguel Casco Urban, Salinas (FAAST)	2023-Q1	2024-Q3	2025-Q1	2028-Q2	\$14,369,456.32
WWTP	CIP.4695042	Rehabilitation of Santa Isabel WWTP (FAAST)	2022-Q1	2024-Q4	2025-Q1	2026-Q3	\$75,224,580.83
WTP	CIP.4776077	Rehabilitation of Villalba Apeadero WTP	2022-Q1	2024-Q4	2025-Q1	2026-Q3	\$8,626,288.83
WTP	CIP.4776078	Rehabilitation of Jagueyes Villalba WTP	2022-Q1	2023-Q4	2024-Q4	2026-Q1	\$15,745,546.47
WTP	CIP.4796004	Rehabilitation of Yauco Río Prieto WTP	2023-Q2	2025-Q1	2025-Q4	2028-Q1	\$26,839,249.30
WST	CIP.5009001	Rehabilitation of Tanks Phase 1-West Region	2022-Q1	2022-Q4	2023-Q1	2025-Q2	\$2,747,590.29
WPS	CIP.5009103	Rehabilitation of Water Pump Stations Tanks Phase 1- West Region	2023-Q1	2025-Q1	2025-Q3	2027-Q4	\$7,303,453.20
WWPS	CIP.5009104	Rehabilitation of Wastewater Pump Stations Tanks Phase 1- West Region	2023-Q1	2025-Q1	2026-Q1	2028-Q1	\$13,413,972.39
RWW	CIP.5009106	Rehabilitation of Raw Water Well Phase 1- West Region	2022-Q3	2024-Q2	2025-Q1	2027-Q2	\$4,174,351.17
WWTP	CIP.5035001	Rehabilitation of Aguada WWTP (FAAST-25)	2022-Q2	2029-Q3	2030-Q2	2032-Q4	\$52,239,532.18
WTP	CIP.5036006	Rehabilitation Aguadilla Montaña WTP	2023-Q2	2025-Q2	2026-Q1	2028-Q2	\$75,027,730.57
D&T-WL	CIP.5129001	Design & Build Installation of 4" WL Betances Community, Llanos Tuna Ward, Cabo Rojo (FAAST) #NRW #JG	2023-Q2	2024-Q4	2024-Q4	2025-Q4	\$971,058.78
WWTP	CIP.5375021	Eliminación de PAS Isabela (LB-J 17) (FEMA-406)	2021-Q2	2024-Q4	2026-Q3	2028-Q4	\$109,198,381.22



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
R	CIP.5376001	Repair of Geosynthetic Membranes in Lago Regulador in Isabela	2021-Q2	2021-Q2	2024-Q1	2025-Q2	\$25,815,791.77
WTP	CIP.5379002	Guajataca Floating RWI	2022-Q1	2022-Q3	2023-Q3	2025-Q3	\$8,227,804.03
WWTP	CIP.5415031	Rehabilitation of Lajas WWTP (FAAST)	2022-Q2	2025-Q1	2025-Q4	2026-Q4	\$15,796,413.90
WTP	CIP.5486006	Rehabilitation of Monte del Estado Maricao WTP	2022-Q3	2024-Q2	2025-Q1	2026-Q3	\$11,642,221.21
WTP	CIP.5486007	Rehabilitation of Maricao WTP	2023-Q2	2025-Q1	2025-Q4	2028-Q1	\$13,463,257.00
WTP	CIP.5489001	Rehabilitation of Maricao Monte del Estado RWI	2022-Q3	2024-Q2	2025-Q1	2026-Q3	\$11,503,186.55
WWTP	CIP.5505028	Rehabilitation of Mayaguez WWTP (FAAST-25)	2021-Q2	2023-Q4	2024-Q3	2027-Q3	\$123,338,429.17
WTP	CIP.5506044	Rehabilitation of Miradero Mayagüez RWI	2022-Q1	2024-Q2	2025-Q1	2027-Q2	\$51,225,698.15
WTP	CIP.5506046	Rehabilitation of Ponce de Leon Mayaguez WTP	2023-Q1	2024-Q4	2025-Q3	2027-Q2	\$40,918,491.37
WTP	CIP.5506047	Rehabilitation of Miradero Mayaguez WTP	2022-Q3	2025-Q1	2026-Q3	2028-Q2	\$47,042,831.83
TSL	CIP.5509001	Rehabilitation of Hormigueros and Mayaguez Trunk Sewer Lines (FAAST)	2022-Q1	2021-Q4	2023-Q4	2026-Q1	\$33,099,121.98
00	CIP.5509105	Rehabilitation of Mayaguez Ocean Outfall	2023-Q1	2025-Q2	2026-Q1	2027-Q4	\$26,991,789.14
D&T-WL	CIP.5609001	Installation of 12" WL PR-115, Rincón (FAAST)	2023-Q3	2024-Q4	2024-Q4	2027-Q1	\$8,955,192.02
TSL	CIP.5685000	Replacement of Trunk Sewer Lines (TSL) in San Sebastián (FAAST)	2022-Q4	2025-Q3	2026-Q2	2028-Q2	\$19,150,624.94
WM	CIP.6009002	Water Meters Pilot Project (FAAST)	2021-Q3	2021-Q4	2024-Q1	2028-Q2	\$4,116,665.68



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
D&T-WL	CIP.7349002	Hatillo -Nuevo Sistema de Dis. Bo. Campo Alegre, Sectores 10 #NRW #JG (FAAST)	2022-Q3	2024-Q2	2024-Q4	2027-Q1	\$11,925,449.84
D	CIP.7776071	Rehabilitation of Toa Vaca Dam	2021-Q2	2024-Q3	2025-Q2	2026-Q3	\$7,191,396.07
D&T-WL	Several East Region	Replacement of Water Pipelines at East Region Phase 1 (CIP-3046007- Sumideros Ward, Aguas Buenas; CIP- 3136015-Urb. Mirador, Caguas; CIP- 3185018-Replacement of 4", Maton Arriba Ward, Calle Jorge Rochi, Cayey; CIP-3185019- PR-1 Km. 61, Maton C1Arriba Ward, Cayey; CIP-3279002- Damajagua Ward, Fajardo; CIP- 3279003- PR-978, Ceiba; CIP-3279004- PR-976, Volatín Ward, Fajardo)	2023-Q2	2023-Q4	2024-Q2	2025-Q2	\$12,051,347.44
D&T-WL	Several Metro Region	Replacement of Water Pipelines at Metro Region Phase 1 (CIP-1159001- Urb. Loiza Valley, Canóvanas; CIP- 1169002-Urb. Villa Fontana, Carolina; CIP-1665120-Urb. Country Club, San Juan; ; CIP-1669101- Urb. Country Club, Carolina; CIP-1019003 Ave. Juan Ponce de Leon, Bo. Amelia)	2023-Q2	2024-Q2	2024-Q3	2025-Q3	\$16,086,573.25
D&T-WL	Several North Region	Replacement of Water Pipelines at North Region Phase 1(CIP-2071001 La Pica, El Peje and Sabana Hoyos, Vega Alta; CIP-2389001- Tetuan III, Jayuya; CIP-2479000 Sector Boquillas,Manatí.)	2023-Q2	2024-Q2	2024-Q4	2025-Q2	\$7,414,620.12





Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
D&T-WL	Several South Region	<ul> <li>Replacement of Water Pipelines at South Region Phase 1 (CIP-4089001- Buena Vista Sector, Arroyo; CIP- 4229003- PR-155 Sector Farallones, Coamo; CIP-4229004- PR-150 Santa Catalina and San Ildefonso, Coamo; CIP-4319001- Indios Ward, Guayanilla; CIP-4399000- Collores Sector PR 512, Juana Diaz; CIP-4779001-RLimón Sector, Villalba; CIP-4779002- Chichón Sector, Villalba)</li> </ul>	2023-Q2	2024-Q1	2024-Q4	2025-Q3	\$25,781,864.09
D&T-WL	Several West Region	Replacement of Water Pipelines at West Region Phase 1 (CIP-5069000- Parcelas Aqlas Aquilino, Añasco; CIP- 5379000-Chevín Sector, Isabela; CIP- 5509000- París Ward, Mayaguez ;CIP- 5579003- PR-412, Corea Sector, Rincón;CIP-5609002- Camino Blanco Black Eagle, Rincón ;CIP-5609004- PR-412, Rincón; CIP-5639000- Azucena and Parcela Lluveras, Sabana Grand;CIP-5685006- Villa Rita , San Sebastián)	2023-Q2	2023-Q4	2024-Q2	2025-Q3	\$29,807,805.13





Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
R	CIP.1001001	Metropolitan Multi- Reservoir System (FEMA) (406)	2025-Q3	2028-Q3	2029-Q2	2034-Q3	\$2,000,000.00
WWTP	CIP.1115018	Rehab PAS Bayamón Panels and Clarifiers Bayamón, PR (FAAST).	2024-Q3	2025-Q3	2026-Q2	2027-Q4	\$30,000,000.00
WPS	CIP.1155017	Finca Rosso 1 Pump Station Microgrid Bayamón, PR (FEMA-406)	2024-Q2	2025-Q2	2026-Q1	2027-Q3	\$26,654,499.65
WTP	CIP.1156005	Rehabilitation of Canóvanas Nueva WTP and RWI	2027-Q1	2027-Q4	2028-Q2	2031-Q1	\$12,996,377.84
WTP	CIP.1325016	Guaynabo Water Treatment Plant- Microgrid, Guaynabo, PR (FEMA-406)	2024-Q1	2025-Q1	2025-Q4	2027-Q2	\$7,324,491.58
WWTP	CIP.1455017	Carolina Regional WWTP & Torrecillas WWTas WWTP Microgrid Loiza, PR (FEMA-406)	2024-Q2	2025-Q2	2025-Q4	2027-Q3	\$26,626,500.00
WWTP	CIP.1655017	Rehab PAS Puerto Nuevo Panels and Clarifiers San Juan, PR (FAAST)	2024-Q3	2025-Q3	2026-Q2	2027-Q2	\$30,000,000.00
В	CIP.1669003	Rehabilitation of PRASA Main Building (Sede)	2024-Q1	2025-Q1	2025-Q2	2026-Q2	\$2,214,714.27
WTP	CIP.1715016	Sergio Cuevas WTP & Cupey PS Microgrid Trujillo Alto, PR (FEMA-406)	2024-Q2	2025-Q2	2026-Q1	2027-Q3	\$51,873,399.30
D&T- WL	CIP.2071001	Improvements to La Pica, El Peje, and Sabana Hoyos Water Distribution System, Municipality of Vega Alta	2026-Q3	2026-Q2	2026-Q4	2027-Q3	\$2,625,745.00
WWTP	CIP.2095016	Barceloneta Regional WWTP Microgrid Barceloneta,PR (FEMA-406)	2024-Q2	2024-Q4	2025-Q3	2027-Q2	\$58,147,624.21
WTP	CIP.2386048	Elimination of Jayuya La Pica WTP and RWI	2026-Q4	2027-Q3	2028-Q2	2029-Q4	\$6,665,220.42

# 7.2 Appendix A: Table A.2- List of PRASA Projects FAASt Mid-Term



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
WTP	CIP.2425017	Rehabilitation of Raw Water Intake Lares Espino WTP Lares, PR (FEMA-406)	2024-Q2	2025-Q1	2025-Q3	2026-Q4	\$6,452,373.33
WWTP	CIP.2545006	Rehabilitation of Naranjito WWTP	2027-Q2	2028-Q1	2028-Q3	2030-Q3	\$10,253,475.60
WTP	CIP.2555016	Raw Water Intake Sana Muertos Orocovis, PR (FEMA-406) .	2024-Q2	2025-Q3	2026-Q2	2028-Q3	\$6,792,475.67
WTP	CIP.2595016	Quebradillas WTP Microgrid Quebradillas, PR (FEMA-406)	2024-Q2	2025-Q1	2025-Q4	2027-Q3	\$8,780,336.56
WWTP	CIP.3056002	Rehabilitation of Aibonito WWTP (FAAST)	2026-Q4	2027-Q3	2028-Q2	2029-Q4	\$11,997,298.02
WWTP	CIP.3105032	Rehabilitation of Barranquitas WWTP (FAAST)	2027-Q1	2028-Q1	2028-Q3	2030-Q1	\$9,419,677.05
WTP	CIP.3106104	Rehabilitation of Barranquitas WTP and RWI	2025-Q1	2026-Q1	2026-Q3	2028-Q1	\$7,341,753.25
В	CIP.3135017	PRASA Central Laboratory, Caguas- Microgrid Caguas, PR (FEMA-406)	2024-Q2	2025-Q3	2026-Q2	2028-Q1	\$17,953,584.77
WTP	CIP.3135018	Caguas Norte WTP Microgrid Caguas, PR (FEMA-406)	2024-Q1	2025-Q1	2025-Q4	2027-Q3	\$20,383,274.74
WWTP	CIP.3135019	Caguas WWTP Microgrid Caguas, PR (FEMA-406)	2024-Q2	2025-Q1	2025-Q4	2027-Q3	\$58,147,624.21
WTP	CIP.3136013	Rehabilitation of Caguas Sur WTP	2025-Q4	2026-Q3	2027-Q2	2028-Q4	\$9,419,354.05
WWTP	CIP.3185033	Rehabilitation of Cayey WWTP (FAAST- 25)	2026-Q1	2027-Q2	2027-Q4	2030-Q1	\$21,955,051.90
WTP	CIP.3186002	Rehabilitation of Cayey Urbana WTP	2025-Q1	2026-Q1	2026-Q3	2028-Q2	\$11,278,552.53
WWTP	CIP.3195016	Cayey Regional WWTP Microgrid Cayey, PR (FEMA-406)	2024-Q2	2025-Q1	2025-Q4	2027-Q3	\$24,104,809.69
WTP	CIP.3239005	Rehabilitation of Comerío WTP (FAAST)	2024-Q1	2025-Q2	2026-Q1	2027-Q4	\$10,217,328.21





Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
WWTP	CIP.3275017	Fajardo Regional WWTP Microgrid Fajardo,PR (FEMA-406)	2024-Q2	2025-Q1	2025-Q4	2027-Q3	\$32,930,724.56
WTP	CIP.3275019	Fajardo WTP & Dam Microgrid Fajardo, PR (FEMA-406)	2024-Q2	2025-Q1	2025-Q4	2027-Q3	\$32,930,724.56
WTP	CIP.3276053	Rehabilitation of Fajardo WTP	2024-Q3	2025-Q2	2026-Q1	2028-Q2	\$11,513,559.86
WWPS	CIP.3365085	Elimination of WWPS Buxo, Humacao PR (Proposed 406)	2025-Q2	2026-Q1	2026-Q3	2027-Q2	\$1,035,173.66
WWTP	CIP.3366001	Rehabilitation of Humacao WWTP	2024-Q3	2025-Q2	2026-Q1	2028-Q2	\$25,200,000.00
WTP	CIP.3466005	Rehabilitation of Luquillo-Sabana WTP	2027-Q1	2027-Q4	2028-Q2	2030-Q1	\$11,278,141.53
WTP	CIP.3535016	Río Blanco WTP Microgrid Naguabo, PR (FEMA-406)	2024-Q2	2025-Q1	2025-Q4	2027-Q2	\$51,812,399.30
WTP	CIP.3615017	El Yunque WTP Microgrid Río Grande, PR (FEMA-406)	2024-Q2	2025-Q1	2025-Q4	2027-Q3	\$32,930,724.56
WWTP	CIP.3755016	Vieques WWTP Microgrid Vieques, PR (FEMA-406)	2024-Q1	2025-Q1	2025-Q4	2027-Q2	\$11,301,193.19
WTP	CIP.4016008	Rehabilitation of Adjuntas Olimpia WTP	2025-Q4	2026-Q4	2027-Q2	2029-Q1	\$8,741,236.56
WTP	CIP.4016012	Rehabilitation of Adjuntas Guilarte WTP	2024-Q1	2025-Q3	2026-Q1	2027-Q3	\$6,732,066.36
WWTP	CIP.4305016	Guayama Regional WWTP Microgrid Guayama, PR (FEMA-406)	2024-Q2	2025-Q1	2025-Q4	2027-Q3	\$32,930,724.56
WWPS	CIP.4495016	Maunabo WWPS & Guardarraya WWPS Microgrid Maunabo, PR (FEMA-406)	2024-Q1	2025-Q1	2025-Q3	2027-Q2	\$6,064,313.26
WWTP	CIP.4585018	Ponce Regional WWTP Microgrid Ponce, PR (FEMA_406)	2024-Q2	2025-Q1	2025-Q4	2027-Q3	\$26,626,499.65
WWTP	CIP.4585096	Rehabilitation of Ponce WWTP (FAAST- 25)	2025-Q2	2027-Q3	2028-Q3	2031-Q2	\$22,800,310.56





Asset Category	Project #			SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
WWTP	CIP.4685016	Santa Isabel WWTP Microgrid Santa Isabel, PR (FEMA-406)	2024-Q1	2025-Q1	2025-Q4	2027-Q3	\$20,322,274.74
WTP	CIP.5035016	Río Culebrinas Raw Water Intake/Dam Microgrid Aguadilla, PR (FEMA-406)	2024-Q2	2025-Q2	2026-Q1	2027-Q3	\$58,208,624.21
WPS	CIP.5035017	Calero Reservoir Dam (Calero Raw Water PS) Microgrid Aguadilla, PR (FEMA- 406)	2024-Q2	2025-Q2	2026-Q1	2027-Q3	\$32,960,724.56
WPS	CIP.5065016	Río Añasco Raw Water Pump Station Microgrid Añasco, PR (FEMA-406)	2024-Q2	2025-Q2	2026-Q1	2027-Q3	\$51,873,399.30
R	CIP.5066000	Casey Reservoir (Proposed 406)	2024-Q3	2027-Q3	2028-Q2	2033-Q2	\$2,000,000.00
D&T- WL	CIP.5067002	Improvements to Water System Community Del Hoyo de los Feos, Añasco (FAAST)	2027-Q1	2027-Q4	2028-Q2	2029-Q3	\$838,032.39
WWTP	CIP.5089000	Rehabilitation of Las Marías WWTP (FAAST-25)	2024-Q2	2025-Q2	2026-Q1	2028-Q1	\$3,951,416.43
WTP	CIP.5375018	Isabela Urbana WTP Microgrid Isabela, PR (FEMA-406)	2024-Q2	2024-Q4	2026-Q1	2027-Q3	\$20,322,274.74
WTP	CIP.5376006	Rehabilitation of Isabela Urbana WTP and RWI	2027-Q2	2028-Q1	2028-Q3	2030-Q4	\$7,746,473.00
WTP	CIP.5485005	Rehabilitation of Orama Maricao RWI (Proposed 406)	2024-Q1	2024-Q4	2025-Q2	2027-Q3	\$7,453,158.25
WTP	CIP.5485016	Monte del Estado WTP Microgrid Maricao, PR (FEMA-406)	2024-Q1	2025-Q1	2025-Q4	2027-Q2	\$1,892,778.32
WWTP	CIP.5505016	Mayaguez WWTP & Mayaguez Sludge Compos Fmpos Facility Microgrid Mayaguez, PR(FEM	2024-Q1	2025-Q1	2025-Q4	2027-Q2	\$45,538,174.39
WTP	CIP.5505017	Ponce de León WTP Microgrid Mayaguez, PR (FEMA-406)	2024-Q2	2025-Q1	2025-Q4	2027-Q3	\$3,348,789.97





Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
WTP	CIP.5636006	Rehabilitation of Sabana Grande WTP and RWI	2027-Q1	2027-Q4	2028-Q3	2030-Q1	\$6,168,314.33
WTP	CIP.5656001	Rehabilitation of Caín Alto San Germán WTP and RWI	2027-Q3	2028-Q3	2029-Q2	2031-Q1	\$6,176,866.33
WTP	CIP.5686045	Rehabilitation of San Sebastian WTP and RWI	2026-Q1	2027-Q1	2027-Q3	2029-Q2	\$8,641,105.37
В	CIP.6005000	Stand-By Power Generators	2024-Q3	2024-Q4	2025-Q3	2027-Q1	\$32,895,600.00
WTP	CIP.6009016	Rehabilitation to PRASA WTP Islandwide LS Project (FAAST)	2027-Q1	2027-Q2	2028-Q3	2035-Q3	\$500,000.00
WWTP	CIP.6009017	Rehabilitation to PRASA WWTP Islandwide LS Project (FAST)	2027-Q1	2027-Q2	2028-Q3	2035-Q3	\$500,000.00
WM	CIP.6009102	Water Meters Islandwide LS Project (FAAST)	2027-Q1	2027-Q3	2028-Q3	2028-Q3	\$812,000,000.00





### 7.3 Appendix A: Table A.3- List of PRASA Projects FAASt Long-Term

Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
WWPS	CIP.1009104	Rehabilitation of Wastewater Pump Stations Tanks Phase 1- Metro Region	2028-Q2	2029-Q3	2030-Q2	2032-Q3	\$2,792,572.39
D	CIP.1666090	Improvements to La Plata Dam- Installation of Anchors	2028-Q2	2029-Q3	2030-Q2	2031-Q3	\$4,033,418.81
WPS	CIP.1669002	Rehabilitation of WPS of Puerto Nuevo and WL of 48", Municipality of San Juan (Inactive)	2043-Q2	2044-Q2	2044-Q4	2047-Q1	\$446,966.27
TSL	CIP.1705002	Rehabilitation of Bo. Sabana Seca TS, Toa Baja	2028-Q2	2028-Q3	2029-Q2	2031-Q1	\$11,155,942.30
TSL	CIP.1705003	Rehabilitation of Urb. Levittown TS, Toa Baja (FAASt)	2028-Q2	2028-Q2	2028-Q4	2029-Q1	\$669,158.33
WTP	CIP.2076041	Rehabilitation of Arecibo Urbano WTP	2031-Q1	2033-Q2	2034-Q1	2035-Q3	\$100,187.25
WST & WPS	CIP.2076044	MCC installation at EBTK Half a Million (FAAST).	2028-Q2	2028-Q3	2029-Q1	2029-Q3	\$396,200.00
WWTP	CIP.2269002	Elimination of Several WWTP North Region (FAASt 406)	2028-Q2	2030-Q1	2030-Q3	2033-Q4	\$1,019,896,384.89
WST	CIP.3009101	Rehabilitación de Tanques Fase 2 - Este (FAAST) (Inactivo)	2028-Q2	2028-Q2	2029-Q1	2030-Q1	\$1,614,436.20
WWPS	CIP.3009204	Rehabilitation EBAS Phase 2 - East (FAAST) Inactive	2045-Q1	2046-Q1	2046-Q3	2047-Q1	\$14,480.85
WWTP	CIP.3135010	Caguas-Elimination of PAS Borinquen,Laterales Villa Sauri y 5 EBAS (Villa Caliz)	2028-Q3	2029-Q1	2029-Q3	2031-Q3	\$18,109,574.62



Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
D&T-WL	CIP.3136009	Improvements to the Water Supply System in Villa del Rey Ward in Caguas (FAAST).	2028-Q2	2028-Q3	2029-Q1	2029-Q3	\$504,422.08
WWTP	CIP.3136014	Elimination of PAS Parcealas Borinquen Caguas , PR (FEMA-406) (PL-36) .	2032-Q1	2033-Q1	2033-Q3	2035-Q1	\$6,086,213.26
WPS	CIP.3449002	Rehabilitation of WPS Represa La Sabana Cuesta Los Jobos	2028-Q2	2029-Q1	2029-Q3	2031-Q2	\$10,533,456.00
WPS	CIP.3789001	Rehabilitation of WPS Represa Central Roig	2028-Q2	2029-Q1	2029-Q3	2031-Q1	\$7,336,656.00
WST	CIP.4009101	Rehabilitation of Tanks Phase 2-South Region	2028-Q2	2028-Q3	2029-Q2	2030-Q3	\$1,889,303.08
WWPS	CIP.4009204	Rehabilitation of Wastewater Pump Stations Tanks Phase 2- South Region	2045-Q1	2045-Q2	2046-Q1	2047-Q1	\$15,691.23
WPS	CIP.4317001	Construction Sector Ballinó Guayanilla WPS (FAAST)	2028-Q2	2028-Q3	2029-Q1	2029-Q4	\$625,872.33
WWTP	CIP.4555022	Rehabilitation of Orocovis WWTP (FAAST-25)	2028-Q1	2029-Q3	2030-Q1	2031-Q4	\$13,706,647.21
TSL	CIP.4576008	Rehabilitation of Wastewater Lines Urb. Alturas de Peñuelas	2028-Q2	2028-Q3	2029-Q1	2029-Q3	\$1,431,103.65
WWTP	CIP.4795022	Rehabilitation of Yauco WWTP (FAAST)	2032-Q2	2033-Q1	2033-Q3	2035-Q3	\$12,769,782.84
WTP	CIP.4796005	Rehabilitation Yauco Rancheras WTP	2028-Q2	2029-Q2	2030-Q1	2031-Q3	\$6,668,195.75
D&T-WL	CIP.5506042	Improvements to the Water Supply System in Mayaguez Mall (FAAST)	2028-Q2	2029-Q1	2029-Q4	2031-Q1	\$1,738,131.97
WWTP	CIP.5685004	Rehabilitation of San Sebastián WWTP (FAAST-25)	2028-Q2	2029-Q2	2029-Q4	2031-Q3	\$12,750,430.33
WST	CIP.6009001	Water Storage Tanks Islandwide (FAAST)	2028-Q1	2028-Q4	2029-Q3	2035-Q3	\$500,000.00





Asset Category	Project #	Description	A&E Start Quarter	SOW Submittal Quarter	Construction Start Quarter	SOW Close Out Submittal Quarter	Total Cost Estimate
00	CIP.6009005	Rehabilitation to PRASA Ocean Outfalls Islandwide LS Project (FAST)	2028-Q1	2028-Q4	2029-Q3	2035-Q3	\$500,000.00
В	CIP.6009007	Rehabilitation to PRASA Buildings Islandwide LS Project	2028-Q1	2028-Q4	2029-Q3	2035-Q3	\$500,000.00
PPTD	CIP.6009008	Projects Pending to Defined LS Project (FAAST)	2028-Q1	2028-Q4	2029-Q3	2035-Q3	\$3,938,065.62
R	CIP.6009010	Reservoir Dredging Islandwide LS Project	2028-Q1	2028-Q4	2029-Q3	2035-Q3	\$500,000.00
Т	CIP.6009012	Telemetry Islandwide LS Project (FAAST)	2028-Q1	2028-Q4	2029-Q3	2035-Q3	\$3,570,599.21
WWPS	CIP.7688000	Elimination of Los Alamos WWPS San Sebastian	2028-Q2	2029-Q1	2029-Q3	2030-Q3	\$930,573.19



### **Chapter 8 Appendix B**

## 8.1 Appendix B: FAASt Plan Projects Schedule





	Task Mode	Name		Start	Finish	2014	2019	2024 2024	2029	2034	2039	2044
1	<b>-</b>	Project Plan FAASt		Fri 11/17/17	Tue 1/1/47	2014	2019	2024	2023	2034	2035	204
2	-,	2017		Fri 11/17/17	Fri 6/28/24	<b></b>		1				
3	*	CIP.1001001-Metropolitar System (FEMA) (406)	n Multi- Reservoir	Fri 11/17/17	Fri 6/28/24							
4	÷	2019		Tue 10/1/19	Fri 12/30/22							
5	*	CIP.1009001-Rehabilitatio 1- Metro Region	n of Tanks Phase	Tue 10/1/19	Fri 12/30/22							
6		2020		Sun 11/1/20	Wed 2/3/27							
7	*	CIP.1009002-Carraizo Res Control (Proposed 406)	ervoir Sediment	Sun 11/1/20	Wed 2/3/27							
8		2021		Fri 1/1/21	Sun 9/15/30				-1			
9	*	CIP.1009103-Rehabilitatio Stations Tanks Phase 1- M	•	Fri 1/1/21	Fri 7/17/26							
10	*	CIP.1009104-Rehabilitatio Pump Stations Tanks Phas		Mon 2/1/21	Mon 9/18/23							
11	*	CIP.1009106-Rehabilitatio Well Phase 1- Metro Regio		Mon 2/1/21	Thu 7/16/26							
12	*	CIP.1016095-Rehabilitatio WTP	n of Guaynabo	Mon 2/1/21	Sun 5/21/23							
13	*	CIP.1019000-Carraizo Res	ervoir Dredging	Thu 2/4/21	Thu 2/5/26							
14	*	CIP.1019001-Rehabilitatio Sonadora, Renacer Sector Municipality of Guaynabo	and Mansiones,	Fri 2/19/21	Tue 2/25/25							
		Task		Inactive Summary	[	]	External T	asks				
		Split		Manual Task			External N	lilestone	$\diamond$			
rojoct		Milestone	<b>♦</b>	Duration-only			Deadline		÷			
	WP12 /ed 4/3/24	Summary	<b></b> 1	Manual Summary R	ollup		Progress					
W		Project Summary	II	Manual Summary			Manual P	rogress	_			
		Inactive Task		Start-only	C							
		Inactive Milestone	•	Finish-only	C							

D	Task Mode	Name		Start	Finish	2014	2010	2024	2020	2024	2020	2044
15		CIP.1019002-Reemplazo Sector Camino Los Bigios #NRW #JG.		Mon 2/22/21	Fri 4/5/24	2014	2019	2024	2029	2034	2039	204
16	*	CIP.1019003-Replaceme Pipelines at Metro Regio Ponce de Leon, Bo. Ame	n Phase 1-Ave. Juan	Mon 3/1/21	Sun 5/14/28							
17	*	CIP.1019004-Replaceme Gato Sector at PR-834, N Guaynabo	• •	Thu 4/1/21	Mon 7/14/25							
18	*	CIP.1076003-Super Aque (Proposed 406)	educt Microgrid	Mon 4/5/21	Wed 11/8/28							
19	*	CIP.1115018-Rehab PAS and Clarifiers Bayamón,		Thu 4/15/21	Tue 8/18/26							
20	*	CIP.1115069-Renovaciór Sec La Pra y Los Fonseca #NRW #JG	-	Sat 5/1/21	Fri 10/15/27							
21	*	CIP.1115070-Infra. Agua Concha, Bayamon (FAAS		Fri 5/14/21	Sat 11/2/24							
22	*	CIP.1115071-Infraestruct Sec. Los Fonseca Bo. Cer #NRW #JG .	-	Mon 5/24/21	Fri 4/24/26							
23	*	CIP.1116008-Rehabilitati Santa Rosa WI (FAAST-25	•	Thu 7/1/21	Wed 12/30/26							
24	*	CIP.1155017-Finca Rossc Microgrid Bayamón, PR (	•	Thu 7/1/21	Sat 5/4/24							
		Task		Inactive Summary	0	[	External	Fasks				
		Split		Manual Task			External	Vilestone	$\diamond$			
Project:	\//D12	Milestone	•	Duration-only			Deadline		₽			
	/ed 4/3/24	Summary	1	Manual Summary R	lollup		Progress					
		Project Summary	00	Manual Summary	1	0	Manual F	rogress	_			
		Inactive Task		Start-only	E							
		Inactive Milestone	$\diamond$	Finish-only	C							

D	Task Mode	Name	Start	Finish	2014 2010	2024	2020	2024	2020	2044
25		CIP.1156004-Rehabilitation of Cubuy WT and RWI, Municipality of Canóvanas	P Thu 7/1/21	Fri 3/13/26	2014 2019	2024	2029	2034	2039	2044
26	*	CIP.1156005-Rehabilitation of Canóvanas Nueva WTP and RWI	Sun 8/1/21	Sun 9/15/30	•					
27	*	CIP.1159000-Design and Build of Rehabilitation of Water Pump Station at I Central, Municipality of Canóvanas	Wed 9/1/21 .a	Thu 4/10/25						
28	*	CIP.1159001-Reemplazo y Renovación Tubería AP Urb. Loiza Valley (FAAST) #NR #JG .	Wed 9/1/21 W	Mon 5/1/28						
29	*	CIP.1165044-Rehabilitation of Carolina WWTP FEMA (FAAST-25)	Wed 9/1/21	Wed 6/25/25	•					
30	*	CIP.1169001-Rehabilitation of Los Angele and Loiza Pueblo Trunk Sewers (FAAST)	s Wed 9/1/21	Mon 6/8/26						
31	*	CIP.1169002-Reemplazo y Renovación Tubería AP Urb. Villa Fontana (FAAST) #N #JG .	Wed 9/1/21 RW	Mon 6/1/26						
32	*	CIP.1325016-Guaynabo Water Treatment Plant-Microgrid, Guaynabo, PR (FEMA-40		Fri 4/25/25						
33	*	CIP.1455017-Carolina Regional WWTP & Torrecillas WWTas WWTP Microgrid Loiza PR (FEMA-406)	Wed 9/1/21 a,	Fri 5/9/25						
		Task	Inactive Summary		Externa	I Tasks				
		Split				al Milestone	$\diamond$			
<b>.</b> .		Milestone 🔶	Duration-only		Deadlin	ne	÷			
	t: WP12 Ned 4/3/24	Summary	Manual Summary F	Rollup	Progre					
Juic.		Project Summary	Manual Summary		Manua	l Progress	_			
		Inactive Task	Start-only	E						
		Inactive Milestone	Finish-only	3						

D	Task Mode	Name		Start	Finish	2014	2019	2024 2024	2029	2034	2039	2044 2044
34	*	CIP.1655017-Rehab PAS Panels and Clarifiers San		Fri 10/1/21	Mon 7/10/28	2014			LOLJ	2034		
35	*	CIP.1660002-Rehabilitati Building (Sede) Inspectio		Fri 10/1/21	Fri 11/13/26							
36	*	CIP.1665120-Renovaciór Urb. Country Club, San Ju #JG .	n Tubería SDR14	Fri 10/1/21	Wed 3/10/27							
37	*	CIP.1665900-Rehabilitati WWPS (Tokio), Municipa		Fri 10/1/21	Mon 8/21/28							
38	*	CIP.1666090-Improveme Dam-Installation of Anch		Mon 11/1/21	Fri 1/3/25							
39	*	CIP.1669001-Improveme Distribution System, Holl Municipality of San Juan	lywood Hills,	Mon 11/15/21	Tue 3/26/24							
40	*	CIP.1669002-Rehabilitati Puerto Nuevo and WL of of San Juan (Inactive)	ion of WPS of	Wed 12/1/21	Tue 12/22/26							
41	*	CIP.1669003-Rehabilitati Building (Sede)	ion of PRASA Main	Fri 12/10/21	Tue 8/3/27							
42	*	CIP.6009002-Water Met (FAAST)	ers Pilot Project	Sun 10/31/21	Fri 6/30/28							
43		2022		Sat 1/1/22	Sat 11/27/32		_					
		Task		Inactive Summary	0	[]	External <sup>-</sup>	asks			_	
		Split		Manual Task			External I	Ailestone	$\diamond$			
Project	: WP12	Milestone	•	Duration-only			Deadline		+			
	Ved 4/3/24	Summary		Manual Summary R	ollup		Progress					
		Project Summary	l l	Manual Summary			Manual P	rogress				
		Inactive Task		Start-only	Ľ							
		Inactive Milestone	$\diamond$	Finish-only	3							

)	Task Mode	Name	Start	Finish	2014 2	2024 2019 2024	2029	2034	2039	2044
44		CIP.1669101-Replacement of Water Pipelines at Metro Region Phase 1- Urb. Country Club, Carolina.	Sat 1/1/22	Sat 8/22/26	_2014   2		2029	2034	2039	204
45	*	CIP.1705002-Rehabilitation of Bo. Sabana Seca TS, Toa Baja	Sat 1/1/22	Sun 4/20/25						
46	*	CIP.1705003-Rehabilitation of Urb. Levittown TS, Toa Baja (FAASt)	Sat 1/1/22	Wed 9/10/25						
47	*	CIP.1709000-Enrique Ortega WTP- Raw Water Intake Power Generator (FEMA-404)	Tue 2/1/22	Sun 9/26/27		-				
48	*	CIP.1715016-Sergio Cuevas WTP & Cupey P Microgrid Trujillo Alto, PR (FEMA-406)	S Tue 2/1/22	Mon 11/11/24		-				
49	*	CIP.1726043-Rehabilitation of Sergio Cueva WTP	s Tue 2/1/22	Sun 2/7/27						
50	*	CIP.2009001-Rehabilitation of Tanks Phase 1- North Region	Wed 2/2/22	Mon 4/19/27						
51	*	CIP.2009103-Rehabilitation of Water Pump Stations Tanks Phase 1- North Region	Tue 2/15/22	Tue 12/7/27						
52	*	CIP.2009104-Rehabilitation of Wastewater Pump Stations Tanks Phase 1- North Region		Tue 5/11/27						
53	*	CIP.2009106-Rehabilitation of Raw Water Well Phase 1- North Region	Tue 3/1/22	Fri 6/9/28						
54	*	CIP.2017005-Rehabilitation of Culebrinas WTP	Tue 3/1/22	Wed 6/3/26						
		Task	Inactive Summary		Ex	ternal Tasks				
		Split	Manual Task		Ex	ternal Milestone	$\diamond$			
)		Milestone 🔶	Duration-only		De	eadline	₽			
Project: V Date: We	wp12 ed 4/3/24	Summary	Manual Summary F	lollup	Pro	ogress				
		Project Summary	Manual Summary		M	anual Progress				
		Inactive Task	Start-only	E						
		Inactive Milestone	Finish-only	C						

D	Task Mode	Name	Start	Finish 2	2014 2019	2024 2024	2029 203	34 2039	2044 2044
55	*	CIP.2039000-Rehabilitation of Guerrero 2 WWPS, Municipality of Aguadilla	Tue 3/1/22	Thu 1/8/26					
56	*	CIP.2071000-Improvements to Arecibo Water Distribution System (Proposed 406)	Fri 3/4/22	Wed 2/11/26					
57	*	CIP.2071001-Improvements to La Pica, El Peje, and Sabana Hoyos Water Distribution System, Municipality of Vega Alta	Mon 3/28/22 1	Sun 2/1/26	-				
58	*	CIP.2075073-Rehabilitation of Islote WWT Arecibo (Proposed 406)	P, Wed 3/30/22	Mon 12/13/27					
59	*	CIP.2076041-Rehabilitation of Arecibo Urbano WTP	Fri 4/1/22	Sat 11/27/32					
60	*	CIP.2076042-Rehabilitation of Esperanza Arecibo WTP and RWI	Mon 4/4/22	Wed 6/24/26					
61	*	CIP.2076044-MCC installation at EBTK Half Million (FAAST).	a Mon 4/4/22	Sun 7/18/27					
62	*	CIP.2095016-Barceloneta Regional WWTP Microgrid Barceloneta,PR (FEMA-406)	Mon 4/11/22	Tue 8/10/27					
63	*	CIP.2095052-Rehabilitation of 42 IN Trunk Sewer Line from PR-684 to the South part Barceloneta WWTP		Fri 10/4/24					
64	*	CIP.2096007-Rehabilitation of Enrique Ortega WTP	Wed 6/1/22	Sat 5/8/27					
		Task	Inactive Summary		External	Tacks	_		
		Split				Milestone	\$		
		Milestone •	Duration-only		Deadline		•		
Project:	WP12 /ed 4/3/24	Summary	Manual Summary F	Rollup	Progress				
	cu 4/3/24	Project Summary	Manual Summary	I	Manual				
		Inactive Task	Start-only	E					
		Inactive Milestone	Finish-only	С					

2	Task Mode	Name	Start	Finish	2014	2019	2024 2024	2029	2034	2039	2044 2044
65		CIP.2149001-Rehabilitation of Camuy Trunk Sewer Lines (FAAST)	Wed 6/1/22	Fri 2/9/29	2014	2019	2024	2029	2034	2039	2044
66	*	CIP.2206107-Rehabilitation of Ciales Fronton WTP and RWI	Wed 6/1/22	Mon 6/30/31							
67	*	CIP.2246106-Rehabilitation of Corozal Negros RWI	Wed 6/1/22	Sun 9/6/26							
68	*	CIP.2246116-Rehabilitation of Corozal Negros WTP	Wed 6/1/22	Sat 12/5/26							
69	*	CIP.2265016-D&B Installation of 12 in Wate Pipeline PR-691, Dorado, PR (FAAST)	r Tue 6/7/22	Thu 6/10/27							
70	*	CIP.2265017-Design and Build for the Rehabilitation of the Distribution System of Vega Alta & Dorado Potable Water	Fri 7/1/22	Sat 1/10/26							
71	*	CIP.2265030-Rehabilitation of Dorado WWTP, Dorado, PR (FAAST) .	Fri 7/1/22	Mon 5/11/26							
72	*	CIP.2269000-Rehabilitacón Siste. Distrib de Dorado/Vega Alta (Dorado Twist) (FAAST) #NRW #JG	Fri 7/1/22	Wed 3/25/26							
73	*	CIP.2269001-Replacement of 4 IN Pipeline in Villa 2000 Community in Dorado	n Tue 7/12/22	Fri 5/7/27							
74	*	CIP.2269002-Elimination of Several WWTP North Region (FAASt 406)	Fri 7/29/22	Mon 10/18/27							
		Task	Inactive Summary	1		External	Tasks	-			
		Split	Manual Task			External	Vilestone	$\diamond$			
	. \//D12	Milestone 🔶	Duration-only			Deadline		÷			
	: WP12 Ved 4/3/24	Summary	Manual Summary F	lollup		Progress					
- a.c. v		Project Summary	Manual Summary	1	î	Manual F	rogress				
		Inactive Task	Start-only	E							
		Inactive Milestone	Finish-only	C							

	Task Mode	Name	Start	Finish	2014	2019	2024 2024	2029	2034	2039	2044 2044
75		CIP.2329004-Design and Build of Rehabilitation of Water Pump Station at Ciales Pozas	Mon 8/1/22	Wed 6/30/27	2014		2024	2025	2034	2035	
76	*	CIP.2346015-Rehabilitation of Hatillo-Camuy WTP	/ Mon 8/1/22	Fri 1/9/26							
77	*	CIP.2346016-Replacement of 4" and 6" WL, Bayaney Ward, Municipality of Hatillo	Mon 8/22/22	Mon 2/14/28							
78	*	CIP.2349003-Design and Build 16" WL, PR-119, Hatillo-Camuy	Tue 8/30/22	Fri 1/1/27							
79	*	CIP.2375002-Trunk Sewer Lines (TSL) Isabela - Aguada (FAAST)	Wed 8/31/22	Sat 10/16/27							
80	*	CIP.2375003-Rehabilitation of Isabela TSL (Including Aguadilla WWPS Avenue and Fomento)	Wed 8/31/22	Mon 2/1/27							
81	*	CIP.2386047-Rehabilitation of Jayuya Urbano WTP and RWI	Thu 9/1/22	Tue 4/22/25							
82	*	CIP.2386048-Elimination of Jayuya La Pica WTP and RWI	Thu 9/1/22	Mon 5/11/26							
83	*	CIP.2386049-Elimination of Jayuya Canalizo WTP and RWI	Thu 9/1/22	Fri 10/16/26							
84	*	CIP.2386057-Rehabilitation of Jayuya WTP and RWI	Thu 9/1/22	Thu 10/22/26							
85	*	CIP.2389000-Renovación Tubería 4" AP D.I. Sector Cuesta del Cementerio (FAAST) #NRW #JG .	Thu 9/1/22	Sun 4/16/28							
		Task	Inactive Summary	0		External	Fasks				
		Split	Manual Task			External l	Milestone	$\diamond$			
Project:	W/P12	Milestone 🔶	Duration-only			Deadline		÷			
	ed 4/3/24	Summary	Manual Summary R	ollup		Progress		_			
	- *	Project Summary	Manual Summary	1	1	Manual F	rogress	_			
		Inactive Task	Start-only	E							
		Inactive Milestone	Finish-only	C							

D	Task Mode	Name	Start	Finish	2014 2019	2024 2024	2029	2034	2039	2044 2044
86	*	CIP.2389001-Replacement of W Pipelines at North Region Phase , Jayuya		2 Sat 1/9/27	1					
87	*	CIP.2419001-Rehabilitación al S Rio Lajas, Dorado (FAAST) #NRV		Wed 12/8/27	1					
88	*	CIP.2425017-Rehabilitación Rav Intake Lares Espino WTP Lares, (FEMA-406)		2 Sat 5/23/26						
89	*	CIP.2426099-Rehabilitation of L Alta WTP and RWI	ares Indiera Fri 9/30/22	2 Sat 2/27/27						
90	*	CIP.2426100-Rehabilitation of L Espino WTP and RWI	ares Nueva Fri 9/30/22	2 Sun 6/21/26						
91	*	CIP.2475021-Rehabilitation of E WWTP (FAAST-25)	Barceloneta Fri 9/30/22	2 Tue 2/12/30	1					
92	*	CIP.2475022-Installation of Wa Río Utuado Bridge, Municipality		2 Sat 5/22/27						
93	*	CIP.2526006-Rehabilitation of N WTP	Morovis Sur Sat 10/1/2	2 Sun 1/12/25	I					
94	*	CIP.2526007-Rehabilitation of N Urbano WTP	Morovis Sat 10/1/2	2 Sun 7/8/29						
95	*	CIP.2526008-Improvements to Distribution System in Morovis		2 Wed 10/21/26						
96	*	CIP.2526009-Diseño/Cons. de T y 2" PVC SDR-14 Sec. Los Pedro #NRW .		2 Sun 7/28/24	I					
		Task	Inactive Sum	mary	Externa	al Tasks				
		Split	Manual Task		Externa	al Milestone	$\diamond$			
Ducia		Milestone 🔶	Duration-only	/	Deadli	ne	÷			
Project: Date <sup>:</sup> W	WP12 /ed 4/3/24	Summary	Manual Sumr	nary Rollup	Progre	SS	_			
		Project Summary	Manual Sumr	mary	Manua	l Progress				
		Inactive Task	Start-only	E						
		Inactive Milestone	Finish-only	С						

	Task Mode	Name	5	Start	Finish	2014 2	2024 2019 202	4 2029	2034	2039	2044 2044
97	*	CIP.2545006-Rehabilitation of WWTP	Naranjito S	Sat 10/1/22	Fri 7/10/26						
98	*	CIP.2549000-Rehabilitation of and Distribution System at Nar		Mon 10/3/22	Tue 3/16/27			I			
99	*	CIP.2555016-Raw Water Intak Muertos Orocovis, PR (FEMA-4		Mon 10/3/22	Tue 3/16/27			I			
100	*	CIP.2595016-Quebradillas WTI Quebradillas, PR (FEMA-406)	P Microgrid	Fri 10/14/22	Fri 11/29/24						
101	*	CIP.2596004-Rehabilitation of WTP and RWI	Quebradillas	Гие 11/1/22	Fri 10/31/25						
102	*	CIP.2709001-Design and Const WL, El Tocon Sector, Quebrada Municipality of Toa Alta		Гие 11/1/22	Fri 10/18/24		-				
103	*	CIP.2709002-Design and Const WL, Villa Esperanza Communit Municipality of Toa Alta		Гhu 12/1/22	Thu 11/12/26						
104	*	CIP.2709010-Improvements to TSL, Municipality of Arecibo	o the Teefrans	Гhu 12/1/22	Tue 4/20/27			I			
105	*	CIP.2736005-Rehabilitation of Mameyes Limon (Arriba) WTP		Гhu 12/1/22	Fri 6/23/28						
106	*	CIP.2736006-Rehabilitation of Mameyes WTP and RWI	Utuado	Гhu 12/8/22	Sat 10/17/26						
107	*	CIP.2739001-Rehabilitation of	Lago Viví RWI I	Fri 12/30/22	Sun 10/26/25						
		Task		Inactive Summary	0	Ex	ternal Tasks				
		Split		Manual Task		Ex	ternal Milesto	one 🔷			
		Milestone		Duration-only		De	eadline	Ŧ			
Project: \ Date: We	WP12 ed 4/3/24	Summary		Manual Summary R	ollup	Pr	ogress	_			
	CG 7/ J/ L7	Project Summary	1	Manual Summary	<b>I</b>	M	anual Progres	is 🗕			
		Inactive Task		Start-only	E						
		Inactive Milestone		Finish-only	Э						

D	Task Mode	Name	Start	Finish	2014	2019	2024 2024	2029	2034	2039	2044 2044
108	*	CIP.6009012-Telemetry Islandwide LS Project (FAAST)	Mon 10/31/22	Wed 3/31/27							
109	*	CIP.7349002-Hatillo -Nuevo Sistema de Dis Bo. Campo Alegre, Sectores 10 #NRW #JG (FAAST)	. Mon 10/31/22	Wed 3/31/27							
110		2023	Mon 1/16/23	Mon 7/7/31							
111	*	CIP.2755055-Rehabilitation of Vega Baja Trunk Sewer Lines (TSL)	Mon 1/16/23	Thu 12/9/27							
112	*	CIP.2916002-Rehabilitation of Arecibo Superacueductos WTP	Fri 1/27/23	Sat 4/22/28							
113	*	CIP.3009001-Rehabilitation of Tanks Phase 1-East Region	Fri 1/27/23	Tue 12/21/27							
114	*	CIP.3009101-Rehabilitación de Tanques Fa 2 - Este (FAAST) (Inactivo) .	se Tue 1/31/23	Sat 3/11/28							
115	*	CIP.3009103-Rehabilitation of Water Pump Stations Tanks Phase 1- East Region	Wed 2/1/23	Sun 1/23/28							
116	*	CIP.3009104-Rehabilitation of Wastewater Pump Stations Tanks Phase 1- East Region	Fri 2/10/23	Sat 7/31/27							
117	*	CIP.3009106-Rehabilitation of Raw Water Wells Phase 1- Este Region	Thu 2/16/23	Tue 6/8/27							
118	*	CIP.3009204-Rehabilitation EBAS Phase 2 - East (FAAST) Inactive .	Tue 2/28/23	Thu 11/19/26							
118	*		Tue 2/28/23								
		Task	Inactive Summary		[	External T	asks				
		Split	Manual Task			External N	lilestone	$\diamond$			
Proiect	: WP12	Milestone •	Duration-only			Deadline		+			
5	Ved 4/3/24	Summary	Manual Summary F	tollup		Progress					
	-	Project Summary	Manual Summary	]		Manual Pi	ogress				
		Inactive Task	Start-only	E							
		Inactive Milestone	Finish-only	3							

C G	Task Mode	Name	Start	Finish	2024 2014 2014 2019 2024 2029 2034 2039 20
119	*	CIP.3046007-Replacement of Water Pipelines at East Region Phase 1-Sumidero Ward, Aguas Buenas	Wed 3/1/23	Wed 11/24/27	
120	*	CIP.3056002-Rehabilitation of Aibonito WWTP (FAAST)	Tue 3/7/23	Tue 5/23/28	
121	*	CIP.3105032-Rehabilitation of Barranquita WWTP (FAAST)	s Wed 3/15/23	Mon 5/24/27	
122	*	CIP.3106104-Rehabilitation of Barranquita WTP and RWI	s Fri 3/31/23	Wed 7/9/25	
123	*	CIP.3106105-Rehabilitation of Barranquita La Boca WTP and RWI	s Fri 3/31/23	Wed 7/9/25	
124	*	CIP.3106106-Rehabilitation of Barranquita Barrancas WTP and RWI	s Fri 3/31/23	Wed 7/9/25	
125	*	CIP.3130001-PRASA Central Laboratory in Caguas (FAAST)	Fri 3/31/23	Wed 7/9/25	
126	*	CIP.3135010-Caguas-Elimination of PAS Borinquen,Laterales Villa Sauri y 5 EBAS (Villa Caliz)	Fri 3/31/23	Wed 7/9/25	
127	*	CIP.3135017-PRASA Central Laboratory, Caguas-Microgrid Caguas, PR (FEMA-406)	Wed 4/26/23	Tue 8/10/27	
128	*	CIP.3135018-Caguas Norte WTP Microgric Caguas, PR (FEMA-406)	Fri 4/28/23	Wed 7/9/25	
129	*	CIP.3135019-Caguas WWTP Microgrid Caguas, PR (FEMA-406).	Fri 4/28/23	Sat 4/8/28	
130	*	CIP.3135079-Rehabilitation of Blowers in Caguas WWTP (FAAST)	Mon 5/1/23	Mon 1/27/25	
		Task	Inactive Summary	0	External Tasks
		Split	Manual Task		External Milestone
Project: '	\//D12	Milestone 🔶	Duration-only		Deadline +
5	ed 4/3/24	Summary	Manual Summary F	Rollup	Progress
		Project Summary	Manual Summary	l	Manual Progress
		Inactive Task	Start-only	C	
		Inactive Milestone	Finish-only	3	

D	Task Mode	Name	Start	Finish	2024 2014 2019 2024	2029	2034 2039	2044 2044
131	*	CIP.3136009-Improvements to the Supply System in Villa del Rey War Caguas (FAAST).		Thu 9/25/25				
132	*	CIP.3136012-Rehabilitation of Cag WTP	uas Norte Mon 5/1/23	Wed 9/24/25				
133	*	CIP.3136013-Rehabilitation of Cag WTP	uas Sur Mon 5/1/23	Fri 10/24/25				
134	*	CIP.3136014-Elimination of PAS Pa Borinquen Caguas , PR (FEMA-406		Thu 9/25/25				
135	*	CIP.3136015-Replacement of Wat Pipelines at East Region Phase 1-U Mirador, Caguas		Thu 9/25/25				
136	*	CIP.3139000-New Laboratory Cent Caguas (Equipment)	tral Mon 5/1/23	Thu 9/25/25				
137	*	CIP.3139001-Rehabilitation of Cag WWTP (FAAST-25)	uas Mon 5/1/23	Sun 1/25/26				
138	*	CIP.3139002-Rehabilitation of Cag Sewer Lines (FAAST)	uas Trunk Mon 5/1/23	Wed 9/24/25	-			
139	*	CIP.3139004-Extension to Water S Aguas Buenas Mulas Tizas (FAAST) #JG	•	Wed 3/26/25				
140	*	CIP.3156093-Rehabilitation of Río Yunque WTP	Grande El Mon 5/1/23	Wed 3/26/25	-			
141	*	CIP.3156094-Replacement of RWI Mameyes River for the Yunque W		Fri 1/23/26				
		Task	Inactive Summary	y	External Tasks			
		Split	Manual Task		External Milestone	•		
Project:	W/P12	Milestone 🔶	Duration-only		Deadline	₽		
5	/ed 4/3/24	Summary	Manual Summary	/ Rollup	Progress			
		Project Summary	Manual Summary	/	Manual Progress			
		Inactive Task	Start-only	C				
		Inactive Milestone	Finish-only	3				

	Task Mode	Name	Start	Finish	2024 2014 2019 2024	2029 2034	2039	2044 2044
142	*	CIP.3185018-Replacement of Water Pipelines at East Region Phase 1-Replacement of 4", Maton Arriba Ward, Calle Jorge Rochi,	Mon 5/1/23	Fri 10/24/25				
143	*	CIP.3185019-Replacement of Water Pipelines at East Region Phase 1-PR-1 Km. 61, Maton C1Arriba Ward, Cayey	Mon 5/1/23	Fri 10/24/25	-			
144	*	CIP.3185033-Rehabilitation of Cayey WWT (FAAST-25)	P Mon 5/1/23	Fri 10/24/25	-			
145	*	CIP.3186002-Rehabilitation of Cayey Urba WTP	na Mon 5/1/23	Fri 10/24/25	-			
146	*	CIP.3186003-Rehabilitation of Cayey El Farallon WTP	Mon 5/1/23	Fri 10/24/25	-			
147	*	CIP.3188001-Rehabilitation of Cayey Operations Office, Cayey PR	Mon 5/1/23	Wed 7/9/25	-			
148	*	CIP.3195016-Cayey Regional WWTP Microgrid Cayey, PR (FEMA-406)	Mon 5/1/23	Tue 5/6/25				
149	*	CIP.3236247-Rehabilitation of Comerío WWTP (FAAST)	Mon 5/1/23	Tue 6/8/27	-			
150	*	CIP.3239005-Rehabilitation of Comerío W (FAAST)	TP Mon 5/1/23	Tue 6/8/27	-			
151	*	CIP.3275017-Fajardo Regional WWTP Microgrid Fajardo,PR (FEMA-406)	Mon 5/1/23	Tue 6/8/27	-			
152	*	CIP.3275019-Fajardo WTP & Dam Microgr Fajardo, PR (FEMA-406)	id Mon 5/1/23	Tue 6/8/27				
		Task	Inactive Summary	1	External Tasks		-	
		Split			External Milestone			
		Milestone $\blacklozenge$	Duration-only		Deadline	+		
Project: V	WP12 ed 4/3/24	Summary	Manual Summary F	Rollup	Progress			
	tu 4/3/24	Project Summary	Manual Summary	<b> </b>	Manual Progress			
		Inactive Task	Start-only	C				
		Inactive Milestone	Finish-only	3				

D	Task Mode	Name	Start	Finish	2014 2019	2024 2024	2029 2034	2044 2039 2044
153	*	CIP.3276053-Rehabilitation of Faj	ardo WTP Mon 5/1/23	5 Tue 6/8/27				
154	*	CIP.3279001-Rehabilitation of Sw Fajardo WWTP (FAAST) #NRW #J0	-	5 Tue 6/8/27				
155	*	CIP.3279002-Replacement of War Pipelines at East Region Phase 1-I Ward, Fajardo; CIP-3279003- PR-978,Ceiba;CIP-3279004-PR-97 Ward, Fajardo)	Damajagua	Tue 6/8/27				
156	*	CIP.3279003-Replacement of Wa Pipelines at East Region Phase 1- PR-978,Ceiba	ter Mon 5/1/23	Wed 8/25/27				
157	*	CIP.3279004-Replacement of Wa Pipelines at East Region Phase 1 - Volatín Ward, Fajardo		8 Mon 12/8/25				
158	*	CIP.3305001-Improvements to Ge WWTP (FAAST)	uayama Mon 5/1/23	Wed 8/25/27				
159	*	CIP.3365083-Rehabilitation of Hu Waste Water Treatment Plant (W Sludge Treatment System (STS)		Wed 8/25/27				
160	*	CIP.3365085-Elimination of WWP Humacao PR (Proposed 406)	S Buxo, Mon 5/1/23	Wed 8/25/27				
161	*	CIP.3366001-Rehabilitation of Hu WWTP	macao Mon 5/1/23		I			
		Task	Inactive Summ	ary	External	Tasks		_
		Split	Manual Task		External	Milestone	$\diamond$	
Project: \	\M/D12	Milestone 🔶	Duration-only		Deadline	2	÷	
5	ed 4/3/24	Summary	Manual Summ	ary Rollup	Progress	i		
	- *	Project Summary	Manual Summ	ary	Manual	Progress		
		Inactive Task	Start-only	E				
		Inactive Milestone	Finish-only	3				

	Task Mode	Name	Start	Finish	2014 2019	2024 2024	2029	2034	2039	2044 2044
162	*	CIP.3366005-Rehabilitation of Humacao WTP	Mon 5/1/23	Wed 8/25/27						
163	*	CIP.3405005-Valenciano WTP Expansion (404)	Thu 5/4/23	Fri 7/16/27						
164	*	CIP.3405006-Valenciano Water Distribution System (404)	Tue 5/16/23	Mon 7/7/31						
165	*	CIP.3405007-Valenciano Dam and RWI (404)	Thu 6/1/23	Thu 9/25/25						
166	*	CIP.3449002-Rehabilitation of WPS Represa La Sabana Cuesta Los Jobos	Thu 6/1/23	Tue 9/9/25		•				
167	*	CIP.3466005-Rehabilitation of Luquillo-Sabana WTP	Thu 6/1/23	Sat 1/8/28						
168	*	CIP.3535016-Río Blanco WTP Microgrid Naguabo, PR (FEMA-406)	Thu 6/1/23	Thu 9/9/27						
169	*	CIP.3536006-Rehabilitation Naguabo Río Blanco WTP	Fri 6/30/23	Sat 1/8/28						
170	*	CIP.3615017-El Yunque WTP Microgrid Río Grande, PR (FEMA-406)	Fri 6/30/23	Wed 8/25/27						
171	*	CIP.3676003-Rehabilitation Treatment Plant Cerro Gordo	Mon 7/3/23	Sat 2/13/27						
172	*	CIP.3755016-Vieques WWTP Microgrid Vieques, PR (FEMA-406) .	Mon 7/3/23	Wed 11/15/28						
173	*	CIP.3765002-Rehabilitation Vieques WWTP (FAAST)	Mon 7/10/23	Thu 6/11/26						
174	*	CIP.3785018-Rehabilitation of Yabucoa WWTP (FAAST)	Mon 7/31/23	Tue 8/10/27						
		Task	Inactive Summary	0	Extern	al Tasks				
		Split	Manual Task		Extern	al Milestone	$\diamond$			
Project:	\\/D12	Milestone 🔶	Duration-only		Deadl	ne	+			
5	ver 12 /ed 4/3/24	Summary	Manual Summary R	ollup	Progre	ess				
		Project Summary	Manual Summary		Manu	al Progress				
		Inactive Task	Start-only	E						
		Inactive Milestone	Finish-only	J						

D 🚹	Task Mode	Name	Start	Finish	2014	202	4 024 2029	2034 203	2044
175	*	CIP.3789001-Rehabilitation of WPS Represa Central Roig	Mon 7/31/23	Fri 1/29/27					
176	*	CIP.4009001-Rehabilitation of Tanks Phase 1-South Region	Tue 8/1/23	Sat 3/6/27					
177	*	CIP.4009101-Rehabilitation of Tanks Phase 2-South Region	Tue 8/1/23	Sat 3/6/27					
178	*	CIP.4009103-Rehabilitation of Water Pump Stations Tanks Phase 1- South Region	Tue 8/1/23	Wed 4/25/29					
179	*	CIP.4009104-Rehabilitation of Wastewater Pump Stations Tanks Phase 1- South Region		Sat 6/9/29					
180	*	CIP.4009106-Rehabilitation of Raw Water Well Phase 1- South Region	Tue 8/1/23	Sat 6/9/29					
181	-,	2024	Mon 1/1/24	Fri 6/3/33		r—		1	
182	*	CIP.4009204-Rehabilitation of Wastewater Pump Stations Tanks Phase 2- South Region	Mon 1/1/24	Mon 5/4/26			I		
183	*	CIP.4016008-Rehabilitation of Adjuntas Olimpia WTP	Wed 1/31/24	Sun 11/14/27					
184	*	CIP.4016012-Rehabilitation of Adjuntas Guilarte WTP	Thu 2/29/24	Sat 7/10/27					
185	*	CIP.4046010-Rehabilation of RWI Rio Añasco and Desander FEMA-406 .	Thu 2/29/24	Mon 5/10/27					
		Task	Inactive Summary	1	Ex Ex	ternal Tasks	5		
		Split	Manual Task		Ex	ternal Miles	stone 🔶		
Project: \	WP12	Milestone 🔶	Duration-only		De	eadline	÷		
	ed 4/3/24	Summary	Manual Summary F	tollup	Pr	ogress			
		Project Summary	Manual Summary	l	M	anual Progr	ess –		
		Inactive Task	Start-only	C					
		Inactive Milestone	Finish-only	J					

D	Task Mode	Name	Start	Finish	2014 2019	2024 2024	2029 2034	2044 2039 2044
186	*	CIP.4089000-Rehabilitation of Arroyo-Guayama Trunk Sewer Lines (FAAST)	Fri 3/29/24	Thu 10/14/27				
187	*	CIP.4089001-Replacement of Water Pipelines at South Region Phase 1- Buena Vista Sector, Arroyo	Sun 3/31/24	Wed 6/9/27				
188	*	CIP.4229003-Replacement of Water Pipelines at South Region Phase 1-4229003- PR-155 Sector Farallones, Coamo	Sun 3/31/24	Wed 6/9/27				
189	*	CIP.4229004-Replacement of Water Pipelines at South Region Phase 1- PR-150 Santa Catalina and San Ildefonso, Coamo	Sun 3/31/24	Sat 7/10/27				
190	*	CIP.4299000-Rehabilitation of Barriada Esperanza Guanica Trunk Sewer System	Sun 3/31/24	Sun 8/15/27				
191	*	CIP.4305016-Guayama Regional WWTP Microgrid Guayama, PR (FEMA-406)	Sun 3/31/24	Wed 6/9/27				
192	*	CIP.4316007-Rehabilitation of Jaguas Pasto Guayanilla WTP	Sun 3/31/24	Wed 6/9/27				
193	*	CIP.4317001-Construction Sector Ballinó Guayanilla WPS (FAAST)	Tue 4/30/24	Sat 7/10/27				
194	*	CIP.4319001-Replacement of Water Pipelines at South Region Phase 1- Indios Ward, Guayanilla	Tue 4/30/24	Sat 4/10/27				
		Task	Inactive Summary		Futore	al Tasks		
		Split				al Milestone	$\diamond$	
		Milestone $\blacklozenge$	Duration-only		Deadli		•	
Project:	WP12 /ed 4/3/24	Summary	Manual Summary R	ollup	Progre			
Date. M	/eu 4/3/24	Project Summary	Manual Summary		-	al Progress		
		Inactive Task	Start-only	C				
		Inactive Milestone	Finish-only	C				

D A	Task Mode	Name	Start	Finish	2014	2019	2024 2024	2029	2034	2039	2044 2044
195		CIP.4399000-Replacement of Water Pipelines at South Region Phase 1 - Collo Sector PR 512, Juana Diaz	Tue 4/30/24 pres	Sat 7/10/27	2014	2013		2023	2034	_ 2035	2044
196	*	CIP.4495001-Rehabilitation or Eliminatio Maunabo WWTP (FAAST-25)	on of Tue 4/30/24	Sat 7/10/27							
197	*	CIP.4495016-Maunabo WWPS & Guardarraya WWPS Microgrid Maunabo (FEMA-406) .	Tue 4/30/24 o, PR	Sat 7/10/27							
198	*	CIP.4555022-Rehabilitation of Orocovis WWTP (FAAST-25)	Tue 4/30/24	Sat 7/10/27							
199	*	CIP.4556009-Rehabilitation of Sanamue Orocovis WTP	rtos Tue 4/30/24	Sat 7/10/27							
200	*	CIP.4559002-Replacement of WL El Gate Ward, Orocovis, PR (FAAST)	5 Tue 4/30/24	Wed 6/9/27							
201	*	CIP.4576002-Rehabilitation of Peñuelas	WTP Tue 4/30/24	Sat 7/10/27							
202	*	CIP.4576008-Rehabilitation of Wastewa Lines Urb. Alturas de Peñuelas	ter Tue 4/30/24	Sat 7/10/27							
203	*	CIP.4585018-Ponce Regional WWTP Microgrid Ponce, PR (FEMA_406)	Tue 4/30/24	Sat 7/10/27							
204	*	CIP.4585096-Rehabilitation of Ponce W (FAAST-25)	WTP Tue 4/30/24	Wed 3/15/28							
205	*	CIP.4589003-Rehabilitation of Ponce Tru Sewer System (FAAST)	unk Tue 4/30/24	Sun 7/11/27							
		Task	Inactive Summary		]	External	Tasks				
		Split	Manual Task			External I	Vilestone	$\diamond$			
Project: \	\//D12	Milestone •	Duration-only			Deadline		+			
	ed 4/3/24	Summary	Manual Summary F	Rollup		Progress					
		Project Summary	Manual Summary		1	Manual F	rogress				
		Inactive Task	Start-only	C							
		Inactive Milestone	Finish-only	Э							

D	Task Mode	Name	Start	Finish	2014	2019	2024 2024	2029	2034	2039	2044 2044
206		CIP.4589006-Rehabilitation of WL La Yuca Sector, Ponce, PR (FAAST)	Fri 5/31/24	Thu 9/9/27	2014	2013		2025	2034	2039	
207	*	CIP.4589007-Rehabilitation of WL Sabaneta Sector, Ponce, PR (FAAST).	s Fri 5/31/24	Mon 1/10/28							
208	*	CIP.4646004-Raw Water Wells Closure/ Salinas WTP (FEMA-404)	Fri 5/31/24	Sun 10/10/27							
209	*	CIP.4649000-Replacement of TSL Santos Amadeo, Baldorioty & Miguel Casco Urban, Salinas (FAAST)	Fri 5/31/24	Thu 9/9/27							
210	*	CIP.4685016-Santa Isabel WWTP Microgrid Santa Isabel, PR (FEMA-406) .	Sun 6/30/24	Thu 10/7/27							
211	*	CIP.4695042-Rehabilitation of Santa Isabel WWTP (FAAST)	Sun 6/30/24	Mon 12/7/26							
212	*	CIP.4776077-Rehabilitation of Villalba Apeadero WTP	Sun 6/30/24	Mon 7/3/28							
213	*	CIP.4776078-Rehabilitation of Jagueyes Villalba WTP	Sun 6/30/24	Thu 9/9/27							
214	*	CIP.4779001-Replacement of Water Pipelines at South Region Phase 1 -Limón Sector, Villalba	Sun 6/30/24	Thu 9/9/27							
215	*	CIP.4779002-Replacement of Water Pipelines at South Region Phase 1 - Chichón Sector, Villalba	Wed 7/31/24	Tue 8/25/26							
216	*	CIP.4795022-Rehabilitation of Yauco WWTF (FAAST)	Wed 7/31/24	Tue 4/25/28							
		Task	Inactive Summary	1		External	Tacks			_	
		Split					Milestone	\$			
		Milestone •	Duration-only			Deadline		•			
Project:	WP12 ed 4/3/24	Summary	Manual Summary F	Rollup		Progress					
	Cu 4/ J/ 24	Project Summary	Manual Summary	1		Manual I	Progress	_			
		Inactive Task	Start-only	E							
		Inactive Milestone	Finish-only	Э							

C	Task Mode	Name		Start	Finish	2014	2019	2024 2024	2029	2034	2039	2044 2044
217		CIP.4796004-Rehabilitat Prieto WTP	tion of Yauco Río	Wed 7/31/24	Thu 6/8/28	2014	2019	2024	2029	2034	2039	2044
218	*	CIP.4796005-Rehabilitat Rancheras WTP	tion Yauco	Wed 7/31/24	Fri 6/3/33							
219	*	CIP.5009001-Rehabilitat 1-West Region	tion of Tanks Phase	Wed 7/31/24	Sat 1/2/27							
220	*	CIP.5009103-Rehabilitat Stations Tanks Phase 1-	•	Fri 8/30/24	Tue 12/7/27							
221	*	CIP.5009104-Rehabilitat Pump Stations Tanks Ph		Sat 8/31/24	Wed 12/8/27							
222	-5	2025		Tue 3/11/25	Tue 7/18/34			I		-1		
223	*	CIP.5009106-Rehabilitat Well Phase 1- West Reg		Tue 3/11/25	Fri 3/24/28							
224	*	CIP.5035001-Rehabilitat WWTP (FAAST-25)	tion of Aguada	Mon 3/31/25	Thu 4/13/28							
225	*	CIP.5035016-Río Culebr Intake/Dam Microgrid A (FEMA-406)		Wed 4/30/25	Sun 4/27/31							
226	*	CIP.5035017-Calero Res Raw Water PS) Microgri (FEMA-406)	-	Fri 5/30/25	Wed 6/23/27							
227	*	CIP.5036006-Rehabilitat Montaña WTP	tion Aguadilla	Thu 7/31/25	Tue 7/18/34							
		Task		Inactive Summary	1	1	External	Tacks			_	
		Split		Manual Task				Milestone	<b></b>			
		Milestone	•	Duration-only			Deadline		↓ ↓			
	: WP12 Ved 4/3/24	Summary	I1	Manual Summary R	collup		Progress					
Jate: V	veu 4/3/24	Project Summary	[]	Manual Summary			Manual I		_			
		Inactive Task		Start-only	C							
		Inactive Milestone	$\diamond$	Finish-only	C							

D	Task Mode	Name	Start	Finish	2014 2019	2024 2024 2029	2034 2039	2044 2044
228		CIP.5065016-Río Añasco Raw Wat Station Microgrid Añasco, PR (FEN	•	Wed 9/22/27	2014 2015		20342033	
229	*	CIP.5066000-Casey Reservoir (Pro 406)	posed Thu 11/27/25	Sun 12/10/28				
230	*	CIP.5067002-Improvements to Wa System Community Del Hoyo de la Añasco (FAAST)		Tue 1/9/29		-		
231	-5	2026	Sun 2/1/26	Fri 1/25/30		I I I I I I I I I I I I I I I I I I I		
232	*	CIP.5069000-Replacement of Wat Pipelines at West Region Phase 1- Aqlas Aquilino, Añasco		Fri 1/25/30				
233	*	CIP.5089000-Rehabilitation of Las WWTP (FAAST-25)	Marías Fri 3/27/26	Mon 4/9/29				
234	*	CIP.5129001-Design & Build Instal 4" WL Betances Community, Llanc Ward, Cabo Rojo (FAAST) #NRW #	os Tuna	Tue 12/4/29				
235	*	CIP.5375018-Isabela Urbana WTP Isabela, PR (FEMA-406)	Microgrid Wed 12/16/26	Sat 12/29/29		-		
236	-5	2027	Sun 1/10/27	Sat 1/18/31		· · · · · ·		
237	*	CIP.5375021-Eliminación de PAS I (LB-J 17) (FEMA-406)	sabela Sun 1/10/27	Sat 1/18/31				
238	*	CIP.5376001-Repair of Geosynthe Membranes in Lago Regulador in I		Sun 2/17/30		-		
239	*	CIP.5376006-Rehabilitation of Isat Urbana WTP and RWI	bela Sun 2/14/27	Wed 2/27/30		-		
		Task	Inactive Summary		Externa	al Tasks		
		Split	Manual Task		Externa	al Milestone 🛛 🔶		
Project	: WP12	Milestone 🔶	Duration-only		Deadlin	ne 🔸		
	Ved 4/3/24	Summary	Manual Summary	Rollup	Progre	ss 🗖		
/		Project Summary	Manual Summary		Manua	l Progress		
		Inactive Task	Start-only	E				
		Inactive Milestone	Finish-only	Э				

D	Task Mode	Name	Start	Finish	2014	2019	2024 2024	2029	2034	2039	2044 2044
240	*	CIP.5379000-Replacement of Water Pipelines at West Region Phase 1 -Chev Sector, Isabela	Mon 3/1/27 ڒn	Fri 7/27/29	2014	2013		2023	2034	2035	
241	*	CIP.5379002-Guajataca Floating RWI	Tue 3/16/27	Fri 3/29/30							
242	*	CIP.5415031-Rehabilitation of Lajas WV (FAAST)	NTP Sat 4/10/27	Wed 10/30/30							
243	*	CIP.5485005-Rehabilitation of Orama Maricao RWI (Proposed 406)	Wed 5/5/27	Sun 11/24/30							
244	*	CIP.5485016-Monte del Estado WTP Microgrid Maricao, PR (FEMA-406)	Wed 9/1/27	Sun 1/12/31							
245	*	CIP.6009102-Water Meters Islandwide Project (FAAST)	LS Wed 3/31/27	Tue 10/31/28							
246		2028	Sat 1/1/28	Thu 12/29/3			-	[	l		
247	*	CIP.5486006-Rehabilitation of Monte d Estado Maricao WTP	lel Tue 2/1/28	Mon 11/17/31							
248	*	CIP.5486007-Rehabilitation of Maricao	WTP Mon 5/1/28	Sun 7/25/32							
249	*	CIP.5489001-Rehabilitation of Maricao Monte del Estado RWI	Mon 5/1/28	Thu 10/9/31							
250	*	CIP.5505016-Mayaguez WWTP & Maya Sludge Compos Fmpos Facility Microgri Mayaguez, PR(FEM	•	Thu 2/27/31							
251	*	CIP.5505017-Ponce de León WTP Micro Mayaguez, PR (FEMA-406)	ogrid Mon 5/1/28	Wed 3/7/29							
252	*	CIP.5505028-Rehabilitation of Mayague WWTP (FAAST-25)	ez Mon 5/1/28	Wed 10/3/29							
		Task	Inactive Summary		0	External T	asks				
		Split	Manual Task			External N	lilestone	$\diamond$			
Proiect	:: WP12	Milestone 🔶	Duration-only			Deadline		+			
5	Ved 4/3/24	Summary	Manual Summary F	Rollup		Progress					
		Project Summary	Manual Summary			Manual P	rogress	_			
		Inactive Task	Start-only	E							
		Inactive Milestone	Finish-only	3							

D	Task Mode	Name		Start	Finish	2014	2019	2024 2024	2029	2034	2039	2044 2044
253		CIP.5506042-Improveme Supply System in Mayagu		Mon 5/1/28	Thu 12/29/33	2014	2019		2029	2034	2039	2044
254	*	CIP.5506044-Rehabilitatio Mayagüez RWI	on of Miradero	Mon 5/1/28	Tue 3/5/30			-				
255	*	CIP.5506046-Rehabilitation Leon Mayaguez WTP	on of Ponce de	Mon 5/1/28	Wed 10/3/29			-				
256	*	CIP.5506047-Rehabilitatio Mayaguez WTP	on of Miradero	Mon 5/1/28	Tue 4/15/31							
257	*	CIP.5509000-Replacemer Pipelines at West Region Ward, Mayaguez		Mon 5/1/28	Wed 3/26/31			-				
258	*	CIP.5509001-Rehabilitation and Mayaguez Trunk Sew	-	Mon 5/1/28	Sat 9/28/30				I			
259	*	CIP.5509105-Rehabilitatio Ocean Outfall	on of Mayaguez	Mon 5/1/28	Sun 12/2/29			-				
260	*	CIP.5579003-Replacemer Pipelines at West Region Corea Sector, Rincón		Mon 5/1/28	Sat 8/4/29			-				
261	*	CIP.5609001-Installation Rincón (FAAST)	of 12" WL PR-115,	Mon 5/1/28	Fri 9/12/31							
262	*	-	5609002-Replacement of Water lines at West Region Phase 1- Camino Ico Black Eagle, Rincón		Sun 1/5/31			-	•			
		Task		Inactive Summary			External					
Project: WP12 Date: Wed 4/3/24		Split Milestone Summary Project Summary		Manual Task Duration-only Manual Summary Rollup				Vilestone	<ul> <li>✓</li> <li>▲</li> </ul>	•		
							Deadline Progress			+		
				Manual Summary Kollup		1	-	ogress Inual Progress				
		Inactive Task	_ U	Start-only	C		manual I	91 - 55				
		Inactive Milestone	\$	Finish-only	3							

D	Task	Name	Start	Finish	<b></b>		2024	0.000			2044
263	Mode	CIP.5609004-Replacement of Water Pipelines at West Region Phase 1 - F Rincón		Fri 1/25/30	2014	2019	2024	2029	2034	2039	2044
264	*	CIP.5636006-Rehabilitation of Saba Grande WTP and RWI	na Mon 5/1/28	Fri 9/27/30			•				
265	*	CIP.5639000-Replacement of Water Pipelines at West Region Phase 1 -A and Parcela Lluveras, Sabana Grand	zucena	Thu 7/3/31			<b>'</b>				
266	*	CIP.5656001-Rehabilitation of Caín Germán WTP and RWI	Alto San Sat 7/1/28	Mon 8/4/31							
267	*?	CIP.6009008-Projects Pending to De Project (FAAST)	efined LS Sat 1/1/28	10/1/1935			C				
268	*	CIP.7688000-Elimination of Los Alar WWPS San Sebastian	nos Fri 3/31/28	Thu 10/31/30			•				
269	*	CIP.7776071-Rehabilitation of Toa V Dam	/aca Fri 3/31/28	Thu 10/31/30							
270	-,	2032	Mon 3/1/32	Fri 10/26/35					1		
271	*	CIP.5685000-Replacement of Trunk Lines (TSL) in San Sebastián (FAAST)		Thu 3/15/35							
272	*	CIP.5685001-EBAS	Mon 3/1/32	Thu 3/15/35							
273	*	CIP.5685004-Rehabilitation of San S WWTP (FAAST-25)	ebastián Mon 4/5/32	Fri 10/26/35							
			· · · · · · · · · · · · · · · · · · ·	I			•				
		Task	Inactive Summary	/		External	Tasks				
		Split	Manual Task			External	Milestone	$\diamond$			
Project: WP12 Date: Wed 4/3/24		Milestone 🔶	Duration-only	Duration-only Manual Summary Rollup		Deadline	e				
		Summary	Manual Summary			Progress		_			
		Project Summary	Manual Summary			Manual I	Progress	_			
		Inactive Task	Start-only	E							
		Inactive Milestone	Finish-only	C							

D C	0	Task Mode	Name	Start	Finish	2014	2010	2024	2020	2024	2020	2044
274	v	*	CIP.5685006-Replacement of Water Pipelines at West Region Phase 1 - Villa Rita , San Sebastián	Wed 3/31/32	Mon 8/27/35	2014	2019	2024	2029	2034	2039	204
275		-	2043	Sun 5/3/43	Tue 1/1/47							
276		*	CIP.5686045-Rehabilitation of San Sebastian WTP and RWI		Tue 1/1/47						I	
277			2045	Sun 1/1/45	Tue 1/1/47							
278		*	CIP.6005000-Stand-By Power Generators	Sun 1/1/45	Tue 1/1/47							
			Task	Inactive Summary			External					
			Split	Manual Task			External	Milestone	*			
Project			Split Milestone	Manual Task Duration-only			External Deadline	Milestone				
		12 4/3/24	Split Milestone Summary	Manual Task Duration-only Manual Summary Ro	ollup		External Deadline Progress	Milestone				
			Split Milestone	Manual Task Duration-only	ollup C		External Deadline	Milestone				