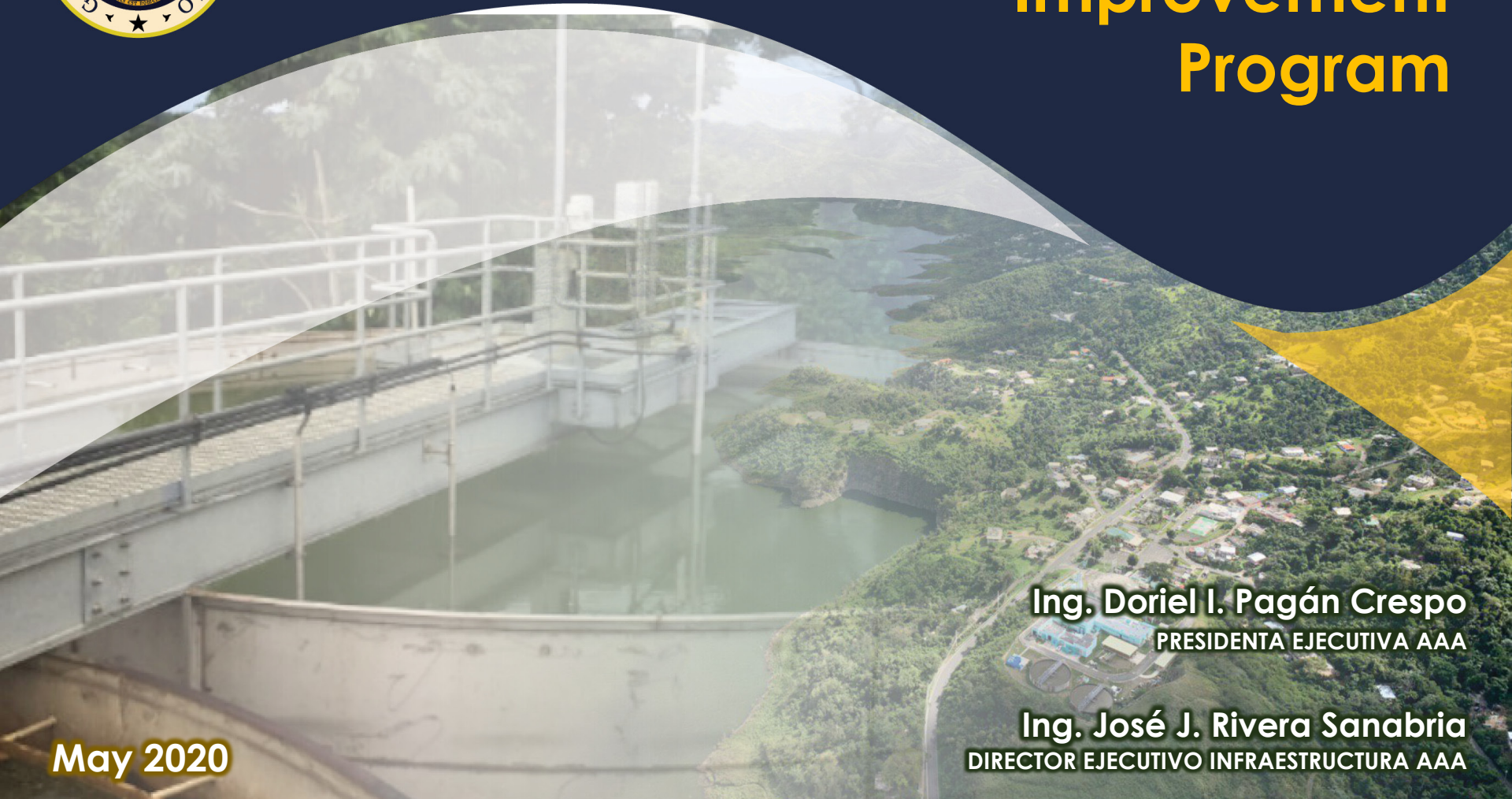




# PRASA's Capital Improvement Program



May 2020

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[acueductospr.com](http://acueductospr.com)



**Puerto Rico Aqueduct and Sewer Authority**  
GOVERNMENT OF PUERTO RICO



# PRASA's Capital Improvement Program

**“Beginning shortly after the turn of the century and extending to 2040, the water utility sector will see a rapid increase in capital needs due to replacement of aging infrastructure, regulatory requirements and growth needs.”**

Improving Water Utility Capital Efficiency, Water Research Foundation & EPA (2009)

## Agenda:

- PRASA's Capital Improvement Program Challenges and Objectives
- Capital Improvement Program Project Types
- Capital Improvement Program Projected Investment and Funding Sources
- PRASA's Project Lists
- Update on the impact of COVID19 on procurement and construction



# PRASA Overview

**1,236,728** customer accounts

Residential



95%

Government



0.8%

Commercial



4.1%

Industrial



0.07%

SERVING A POPULATION  
OF:  
97% WATER  
59% SEWER

**4,654**  
employees

1,562 WATER  
TANKS



254 WATER  
WELLS



14,753 MILES OF WATER  
PIPELINE  
5,994 MILES OF  
WASTEWATER PIPELINE



8 DAMS  
143 WATER  
INTAKES



883 WATER PUMP  
STATIONS  
714 WASTEWATER  
PUMP STATIONS



**114**  
WATER  
TREATMENT  
PLANTS



**51**  
WASTEWATER  
TREATMENT  
PLANTS





# PRASA's Capital Improvement Program Industry Challenges

## Main Water Industry Challenges



**ENVIRONMENTAL  
REGULATIONS**  
HIGHER CAPITAL AND  
OPERATING COSTS



**AGING INFRASTRUCTURE  
AND CAPITAL INTENSIVE  
OPERATION**



**VULNERABILITY  
TO CLIMATE CHANGES AND  
NATURAL DISASTERS**



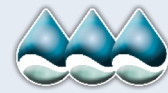
Water  
Quality



System  
Renewal



System  
Resiliency



## Plan to address the identified challenges

Through its revised Capital Improvement Program, PRASA intends to address these challenges, **renewing the infrastructure**, ensuring **water quality** as well as focusing on increasing the **system resiliency** to reduce its vulnerability





# PRASA's Capital Improvement Program

## Objectives of the Capital Improvement Program





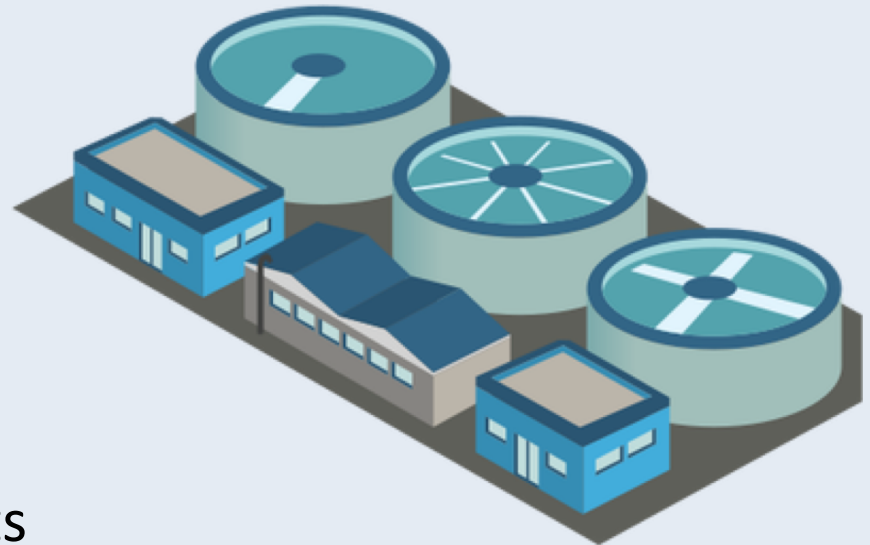
# PRASA's Capital Improvement Program

- Types of projects in the CIP (construction)

- Mandatory Compliance
- Non Mandatory Compliance
- Optimization
- Emergencies
- Renewal and Replacement
- Growth
- Meters
- Quality
- Safety
- Others (office buildings)

- Non Construction CIP projects

- Fleet
- Information Technologies





# PRASA's Capital Improvement Program

## Current Approved CIP

Clasificación de Proyecto	2020	2021	2022	2023	2024	2025	2020-2025
Emergency/Permanent Works	\$ 33,080,321	\$ 125,363,696	\$ 141,094,581	\$ 41,066,721	\$ 43,838,755	\$ 56,772,859	\$ 441,216,933
Fleet & IT	18,677,104	14,451,878	9,394,547	9,000,003	9,000,003	9,000,003	69,523,538
Growth	3,702,928	3,376,744	8,222,042	8,503,775	8,977,231	6,945,342	39,728,063
Mandatory Compliance	6,818,988	44,006,510	76,427,885	61,605,534	24,405,194	17,166,371	230,430,482
Meter Replacement	500,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,500,000
Non Mandatory Compliance	5,522,777	29,188,630	71,835,335	61,881,482	24,690,076	11,979,996	205,098,297
Optimization & Emergencies	0	15,000,000	15,000,000	14,375,000	15,625,000	15,000,000	75,000,000
Others	308,875	2,609,633	2,632,594	169,480	611,848	1,774,294	8,106,725
Quality	194,256	14,449,226	39,567,841	41,125,113	24,602,336	14,829,196	134,767,968
Renewal & Replacement	49,683,225	97,585,057	82,656,845	79,630,212	81,065,218	86,058,640	476,679,198
Safety	92,577	1,763,383	5,685,195	4,746,597	3,715,933	1,872,282	17,875,967
	<b>\$ 118,581,052</b>	<b>\$ 348,794,759</b>	<b>\$ 453,516,864</b>	<b>\$ 323,103,918</b>	<b>\$ 237,531,595</b>	<b>\$ 222,398,983</b>	<b>\$ 1,703,927,171</b>

### CIP Current Status

- Due to the unexpected delays caused by the COVID19 pandemic, PRASA now estimates the 2020 expenditure to be near \$80MM with a \$30MM carry over to the FY2021.
- In the various stages of the procurement process which started in December 2019 there are an estimated \$84MM in construction costs with a total investment of \$136 MM



# Federal Programs Available to Fund CIP

Historically, PRASA has received federal funds for its CIP through SRF Loans, Rural Development Bonds in addition to its public bond issuances (in 2008 and 2012) and interim financing



## State Revolving Funds (SRF) Loans

- Annual grants assigned to the EPA by the US Congress, in an amount of around **\$30 million** for Drinking Water SRF (DWSRF) and Clean Water SRF (CWSRF) Programs, requiring a state match of 20% of the annual grant from the Department of Health (DOH) and the Environmental Quality Board (EQB), respectively
- The program's Repayment Funds are also available, currently with a balance of around **\$195 million** to be assigned through new loans for qualifying projects without a state match requirement



## Rural Development (RD) Program

- The US Department of Agriculture through its Rural Development division has the ability to provide funds for water and wastewater projects in rural areas through a bond program
- The annual appropriation for Puerto Rico has been historically around **\$10 million**



# PRASA's Capital Improvement Program Recurring Sources of Funds

## State Revolving Funds

- State Revolving Funds (SRFs) are received through annual grants assigned to the EPA by the US Congress, in an amount of around \$27 million for DWSRF and CWSRF Programs, requiring a state match of 20% of the annual grant.
- PRASA projected **\$346M or 18%** of the 6-year CIP may qualify for SRF funding
  - Annual Appropriation
  - Repayment Funds

## Rural Development Bonds

- PRASA expect to incur in **\$24M** on projects qualifying for RD funding



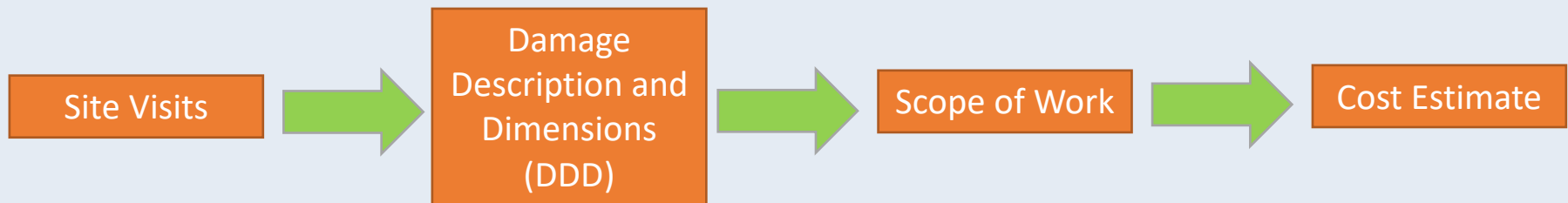


# PRASA's Capital Improvement Program Non Recurring Sources of Funds

## POTENTIAL SOURCES OF FUNDS TO REBUILD AND IMPROVE PRASA'S INFRASTRUCTURE

- FEMA's Public Assistance Program:
  - Emergency Works (Cat A-B), with estimates at \$265 million spent by PRASA to respond to the emergency
  - Permanent Work (Section 428), PRASA estimates damages at \$769 million
  - Hazard Mitigation Programs 404 and 406
- Community Development Block Grant – Disaster Relief: Cost share program (flexible match), critical infrastructure program and mitigation program.
- Supplemental fund allocations from the USDA Rural Utility Service program

## OBTAINING FUNDS THROUGH FEMA'S PUBLIC ASSISTANCE PROGRAM





# Current Construction Projects

Project ID	Description
3-53-5005	HORMIGUEROS TRUNK SEWER EMERGENCY-REPLACEMENT OF 3,055 LINEAR FEET OF 30 INCH PIPE DIAMETER, PR-309, KM 0.8, HORMIGUEROS
REN 572001	Emergencia Troncal Sanitaria Manatí-Barceloneta, Reemplazo de 825' Pies Lineales de Tubería de 36" de Diámetro, Manatí
3-13-5079	AERATION BLOWERS REPLACEMENT AT CAGUAS WASTEWATER TREATMENT PLANT, CAGUAS
1-66-5114	DESIGN BUILD FOR THE IMPROVEMENTS TO THE BARRIO OBRERO MARINA SANITARY SEWER SYSTEM
1-66-5106	New Sanitary Sewer System for Yambelé Sector, San Juan
REN	Eliminación Tanque 5 MG y Cuarto de Bombas de PF Ponce Vieja
REN	Suplir e instalar parrilla de escalera mecánica, grúa y tornillo colector de basura PAS Guayama
Various	Instalación de Generadores
5-68-6045	Mejoras Toma de Aguas Crudas PF Calabaza, San Sebastián



# Projects in Award Process

Project ID	Description
19-SP-002	Diseño - Construcción Estación de Bombas Represa Guajataca
19-SP-006	DISEÑO Y CONSTRUCCION DEL NUEVO LABORATORIO CENTRAL
20-MAE-I-005	Mejoras al Sistema de Tratamiento de Cienos en la Planta de Filtración Farallón, Cayey
20-SP-002	Troncal Sanitaria La Puntilla, Arecibo
20-SP-005	DESIGN AND BUILD FOR IMPROVEMENTS TO BUENA VISTA PUMP STATION, HUMACAO
20-SP-006	IMPROVEMENTS TO SEVERAL AREAS OF THE SANITARY SEWER OF THE PUERTO NUEVO REGIONAL WATER TREATMENT PLANT RECOLLECTION SYSTEM, SAN JUAN
20-SP-008	DESIGN AND BUILD OF THE HYDROPNEUMATIC PUMP SYSTEM FOR IMPROVEMENTS TO THE POTABLE WATER SERVICE TO THE ULTIMO CHANCE AND BRISA ORIENTAL SECTORS, SAN JUAN



# Projects in Procurement Process

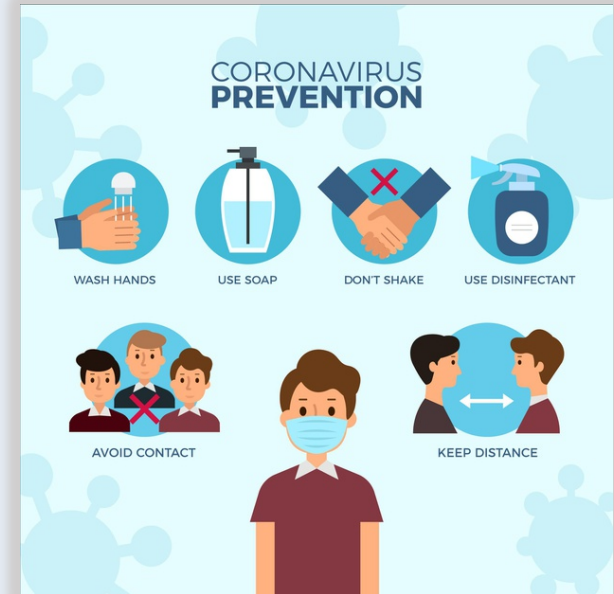
ID	Description	Pre-bid	Opening
20-SP-003	CLARIFYING TANK UNDERPINNING AT ANTONIO SANTIAGO VÁZQUEZ WTP, PHASE III, ARECIBO	22-Ene-20	30-Jun-20
20-SP-007	IMPROVEMENTS TO THE PONCE NUEVA WATER FILTRATION PLANT FOR COMPLIANCE	29-Ene-20	9-Jun-20
20-SP-009	MANATÍ-BARCELONETA TRUNK SEWER REHABILITATION AT HACIENDA LA ESPERANZA, MANATI	19-Feb-20	30-Jun-20
20-SP-010	DESIGN AND BUILD FOR THE CONSTRUCTION OF THE NEW BUENA VISTA WATER STORAGE TANK, HUMACAO	21-Feb-20	9-Jun-20
20-SP-016	IMPROVEMENTS TO LA PLATA DAM – REPAIRS OF SCOURING, TOA ALTA	3-Jun-20	18-Jun-20
20-SP-017	NEW DORADO TRUNK SEWER, DORADO	1-Jun-20	18-Jun-20
20-SP-018	NEW POTABLE WATER SYSTEM FOR AVE. HOSTOS & PLAYA DE PONCE, PHASE IV-A, PONCE	5-Jun-20	23-Jun-20
20-SP-019	SCHEDULED CHANGE OF THE FILTER MEDIA OF THE AGUADILLA WATER FILTER PLANT, AGUADILLA	8-Jun-20	23-Jun-20
20-SP-020	QUEBRADA WATER TREATMENT PLANT LT2 COMPLIANCE IMPROVEMENTS PROJECT COMPLETION	10-Jun-20	25-Jun-20
20-SP-021	FURNISH AND INSTALLATION OF EMERGENCY GENERATORS FOR WEST REGION	12-Jun-20	25-Jun-20
20-SP-022	FURNISH AND INSTALLATION OF EMERGENCY GENERATORS FOR SOUTH REGION	12-Jun-20	2-Jul-20



# Impact of COVID19 – Procurement Process

- Procurement Process:

- Pre-bid meetings and bid openings have been postponed and will resume in June and in compliance with PRASA's "Plan de Control de Exposición para Retorno al Trabajo ante Covid19".
- Visitors to PRASA facilities will be required to use masks that cover nose and mouth – NO EXCEPTIONS
- PRASA will take body temperature of all visitors.
- Visitors must apply hand sanitizer as they enter the facilities.
- Visitors must follow instructions provided by PRASA personnel with regards to use of facilities (i.e. elevators), and social distancing requirements.
- Allow for extra time as PRASA will continue to enforce bid opening times.





# Impact of COVID19 – Construction

- **Construction Work:**

- All contractors must comply with all requirements from the published Executive Orders.
- All contractors must submit their control plan for auto-certification with PROSHA and the Puerto Rico Department of Labor as per “Carta Circular 2020-03”.
- All contractors must implement the latest and most current recommendations from the Center for Disease Control (CDC) and the Occupational Safety and Health Administration (OSHA) at all times.



# Questions?

