



Water

Program Management

Client

Puerto Rico Infrastructure
Financing Authority

Location

San Juan, Puerto Rico

In describing the extraordinary efforts underway as part of this program, and the rationale for selecting a 'public private partnership approach' that included the CH2M HILL/CSA joint venture, Dr. Carlos I. Pesquera, former AFI Executive Director and current gubernatorial candidate for Puerto Rico indicated:

"Success is achieved through a team of [government] employees and the use of outside consultants. If you don't hire the best, you limit yourself dramatically."

Program Management, Technical, and Design Services

Project Highlights

CH2M HILL was part of a Joint Venture with local joint venture partner, CSA Group, Inc. In excess of 90 percent of the work contracted was performed by the Joint Venture. Exceptions include certain analytical services, geotechnical fieldwork, surveying, and other miscellaneous tasks.



- CH2M HILL provided program management and technical and design services for a program that included planning, design, and construction services for dams, reservoirs, pipelines, water and wastewater treatment plants, pump stations, and water transmission and distribution network
- CH2M HILL employed GIS technologies to facilitate master planning and design of improvements
- We used the LYNX software application to link the water distribution system GIS layer to the EPANet hydraulic modeling software
- CH2M HILL developed a short term CIP and assisted with EPA compliance issues within 3 months; our team guided 11 strategic water and wastewater projects implemented in a design build approach within 5 years

Project Description

CH2M HILL and local joint venture partner, CSA Group, Inc., were retained by the Puerto Rico Infrastructure Financing Authority (AFI) to provide program management and technical and design services for a capital improvements program to improve the quality of water and wastewater infrastructure and services for 3.7 million Puerto Ricans. This program included planning, design, and construction services for dams, reservoirs, pipelines, water and wastewater treatment plants, pump stations, and water transmission and distribution network. The goal were to help rehabilitate and modernize the water and sewer systems, achieve compliance with U.S. EPA environmental regulations, meet future water supply demands, and extend sewer service to areas not currently served.

We managed more than 100 consultants and contractors who were responsible for delivering specific elements of the work under our oversight, including negotiating and administering the required AFI contracts.

To facilitate master planning and design of improvements, CH2M HILL employed GIS technologies. We used the LYNX software tool to input the water distribution system into GIS by linking MicroStation, ArcInfo, and ArcView images and associated system attribute data. LYNX provides the capability to link the water distribution system GIS layer to the EPANet hydraulic modeling software.



CH2M HILL developed a short term CIP and assisted with EPA compliance issues within 3 months. Our joint venture team is now guiding 11 strategic water and wastewater projects implemented in a design-build approach.

The Fajardo and Northwest projects included 30 percent design, permitting, EIS, and related services. We evaluated current and future demands, water supplies, and infrastructure in strategic project areas. We performed an economic analysis of each project. The North Coast Water Transmission and Distribution Improvements project focuses on hydraulic modeling and conceptual design for improvements to the pipeline system and integration of the water supply from the North Coast Superaqueduct.