



## The HISTORY of the RPN Project is old, but the SCIENCE isn't

Did you know the U.S. Army Corps of Engineers (USACE) Río Puerto Nuevo Flood Risk Management Project has been shaped and reshaped over decades as science, technology, and local conditions have changed?

**1950s & 60s – The watershed was reshaped long before the Corps became involved.** In the 1950s and 1960s, the Río Piedras was rerouted, straightened, and partially canalized, decades before the Corps of Engineers entered the picture. In addition to urban growth, the Puerto Nuevo River was diverted as part of a 24-year, \$70-million harbor expansion program led by the Puerto Rico Ports Authority that reclaimed more than 100 acres of former marshland to build industrial infrastructure in San Juan. These large-scale engineering decisions permanently reshaped the watershed long before USACE became involved.

The natural Río Puerto Nuevo, Quebrada Margarita, and Río Piedras were channelized and redirected by local and territorial agencies to support development, leaving dense infrastructure and entire neighborhoods within the floodplain. Over time, the channels lost the capacity to safely carry major storm flows, creating a mismatch between growing development and shrinking channel capacity — the challenge USACE was asked to solve.

**1980s – Original authorization, original problem.** The project was first **authorized by Congress in 1986** after studies in the early 1980s documented severe, recurring flooding in the Río Piedras/Río Puerto Nuevo watershed in San Juan. Those early studies focused on the urgent need to protect people, homes, businesses, and critical infrastructure from flood events.

**1990s – Initial designs, not the final word.** In the 1990s, the Corps prepared the first **General Design Memorandum and Feature Design Memoranda**, which laid out an initial engineering approach based on the best hydrology, hydraulics, and design standards available at that time. Those documents were a *starting point*, not a frozen design.

**2000s–2010s – Urban growth and changing conditions.** As San Juan continued to urbanize, stormwater runoff, land use, and infrastructure conditions changed. At the same time, engineering practices, environmental regulations, and community expectations evolved, requiring updates to how the project would be implemented on the ground.

**2020 – Updated science, updated validation.** In 2020, the Corps completed a **Continuing Construction Validation Report** that reexamined the project using updated hydrology, engineering, socioeconomic data, environmental conditions, and climate/sea level change analysis, including lessons learned from Hurricane María. This is one way modern science has been incorporated into the project.

**Today – Modern standards, modern tools.** Current design and construction phases use **updated storm data, hydraulic modeling, seismic standards, and utility design criteria** to deepen and widen channels, replace bridges, and upgrade water, sewer, and electrical systems to today's codes, NOT 1980s codes.

**BOTTOM LINE:** *The Río Puerto Nuevo Project is not a static, 40-year-old plan. It began with studies in the 1980s, but its design, engineering, and environmental analyses have been repeatedly updated to reflect **current science, current data, and current conditions**, from climate and storm behavior to infrastructure standards and community needs.*