

Disclaimer Regarding the Sediment and Channel Capacity Assessment - Rio Puerto Nuevo (RPN) Flood Mitigation Project (June 2024)

This document is a technical engineering report that details a scientific study of the Rio Puerto Nuevo Flood Mitigation Project. The primary goal of this study was to use advanced computer modeling to forecast potential long-term sedimentation patterns within the river channel and to understand how these patterns might affect the project's flood-carrying capacity over time.

It is important for the public to understand the following key points when reviewing this report:

This is a Modeling Study, Not a Prediction of Guaranteed Outcomes: The report is based on a sophisticated 2-dimensional computer model (Adaptive Hydraulics or AdH). Such models are standard tools in hydraulic engineering for simulating complex systems. However, they are based on a specific set of data and assumptions. The results represent potential future trends, not absolute certainties. As stated in the report's conclusion, "model results should not be relied upon for absolute quantities." Natural river systems are highly variable, and actual conditions may differ from the modeled scenarios.

The Study Informs Proactive Maintenance Planning: A key purpose of this analysis is to inform development of an effective Operations and Maintenance (O&M) plan. By simulating potential sediment deposition, the project team can proactively plan for monitoring and maintenance activities, such as dredging, to ensure the long-term success and functionality of the flood mitigation project. The report outlines a recommended plan to manage sediment and maintain the channel's design capacity.

The Project is Designed to Manage Sediment: The study analyzes the channel's ability to "self-scour" or naturally clear out deposited sediment during storm events. The findings show that while significant sedimentation can occur during periods of low flow, storm events have the energy to mobilize and transport this sediment. The analysis helps in understanding these dynamics to ensure the project performs as intended to reduce flood risk for the surrounding communities.

In summary, this scientific assessment is a critical and proactive step in ensuring the Rio Puerto Nuevo Flood Mitigation Project's long-term effectiveness. The findings are being used to guide the engineering and maintenance strategies, and do not indicate an unmanageable sediment problem.