

Caño Martín Peña, Project Design Report and Environmental Impact Statement (EIS). This study was performed under the Support for Others Program at the request of the Puerto Rico Department of Natural and Environmental Resources (DNER). This report included a description of the study area's problems, several dredging and disposal alternatives, a detailed design for the sponsor's preferred alternative and a preliminary draft EIS of the recommended project. A partial list of relevant previous studies performed by private firms and governmental agencies in the project area is included in the report. The Project Design Report considered four alternatives that would vary in the size and shape of the channel. According to this report, these alternatives were evaluated on the basis of their construction method and cost, environmental impacts, real estate requirements, impacts to bridges and utilities, disposal of dredged material, project operation and maintenance, tidal flow capacity, and the recreation and navigation potential. These alternatives are as follows:

*Alternative 1:* Considered dredging a trapezoidal earth channel with a width between 150 to 230 feet and 10 feet depth. It would require the dredging of approximately 550,000 cubic yards of mixed materials from the CMP. The proposed channel dredging would follow the existing CMP channel alignment beginning at San José Lagoon and extends for about 11,600 feet to end west of the Luis Muñoz Rivera Avenue Bridge.

*Alternative 2:* Considered vertical concrete piles with connecting concrete panel walls with earth bottom with a width between 150 to 230 feet and 10 feet depth. It would require the dredging of approximately 750,000 cubic yards of mixed materials from the CMP. The proposed channel dredging would follow the existing CMP channel alignment beginning at San José Lagoon and extends for about 11,600 feet to end west of the Luis Muñoz Rivera Avenue Bridge.

*Alternative 3:* Consisted of a very limited channel clean up, cutting a trapezoidal channel section of 70 feet width by 3.5 feet deep and constructing a maintenance access road along the eastern half of CMP. It would require the dredging of about 25,000 cubic yards of mixed materials from the CMP. The proposed channel dredging would follow the existing CMP channel alignment beginning at San José Lagoon and extends for about 11,200 feet to end west of the Luis Muñoz Rivera Avenue Bridge.

*Alternative 4:* Similar to Alternative 2 with some modifications, this was the recommended alternative. It consisted of a rectangular channel with vertical bulkhead system. This project would require the dredging of approximately 750,000 cubic yards of mixed material along the existing channel between the bridge of Luis Muñoz Rivera Avenue and the San José Lagoon to provide a variable width of between 150 and 230 feet, and a depth of 10 feet. A transition from channel depth of 10 feet to a depth of 6 feet would be provided where the channel reaches San José Lagoon. This alternative requires replacement of existing bridges at Luis Muñoz Rivera and Barbosa Avenues.

All of these alternatives would require the relocation of people, houses, and utilities in the area as well as the acquisition and relocation of some structures along the channel alignment. The no-action alternative was also considered in the project Design Report. The report stated that no-action alternative would lead to further environmental degradation of the San Juan Bay Estuary, to a complete blockage of the channel by garbage and debris accumulation and continued construction of structures on the filled up waterway, and to continue the social stress associated with frequent flooding, deteriorated air and water quality, and life threatening health hazards.

The report also evaluated three alternatives for the disposal of the dredged material, in terms of their proximity to the project area, special handling, transportation requirements, environmental benefits, environmental impacts, and their overall cost. The disposal alternatives were as follows: (1) Ocean disposal; (2) land disposal; (3) and in-bay disposal. The study recommended in-bay disposal to fill two of the largest deep holes located at Los Corozos and San José Lagoons.

The PRHTA is now the lead from the Commonwealth of Puerto Rico for the proposed rehabilitation of CMP in the Municipality of San Juan, PR. The firm Moffatt and Nichol Engineers on behalf of the PRHTA prepared the document titled "Caño Martín Peña Waterway Improvements" dated December 2002, where the above-mentioned alternatives presented in the document Dredging of Caño Martín Peña, Project Design Report and Environmental Impact Statement were also reviewed. This document evaluated an additional alternative, it consisted of a rectangular 10 feet deep channel with realignment and vertical steel bulkhead system. The proposed channel width at straight and minor bends sections is 180 feet. The proposed channel alignment follows the

existing CMP channel from the Laguna San José to the existing oxbow, crosses the peninsula and ends west of the Luis Muñoz Rivera Avenue Bridge, a distance of approximately 10,500 feet. The recommended alternative in this report is the same as the recommended alternative presented in the report prepared by the Corps in May 2001.

The PRHTA's proposal includes the following elements:

a. Dredging the CMP in the segment between the bridge on Muñoz Rivera Avenue and the San José Lagoon.

Approximately 750,000 cubic yards of dredge material would be removed to widen the CMP to a variable width of between 150 and 250 feet, and a depth of 10 feet.

b. Discharge of fill material over open waters and/or wetlands.

c. A conservation strip and greenway at the CMP banks, which will include mangrove mitigation, trails and recreational areas that will allow pedestrians to interact with the CMP.

d. Construction of a vehicular, pedestrian and cyclist transportation corridor parallel to the CMP and its conservation strips.

e. Relocation of approximately 1,100 structures (family homes and small businesses) that would be affected by the proposed project.

f. Construction of a sanitary sewer and storm water system to eliminate the disposal of wastewater into the CMP. Improvements of existing systems to correct the interconnections between storm water and sewer systems.

g. Improvements to the potable water distribution system within the perimeter of influence of the project.

The primary purpose of this project is the environmental restoration of the eastern portion of CMP, which includes restoring the water flow between the San José Lagoon and the San Juan Bay. It would also benefit eight low-income communities surrounding the CMP. However, the proposed action would cause significant impacts, including individual and cumulative effects to the mangroves-wetlands, and aquatic resources, human environment, and type of land use (residential and commercial). The public health or safety could be affected since the sediments to be dredged in the CMP were determined to be polluted. Also, the proposed project could impact cultural resources. No endangered or threatened species are known to exist within the project area.

Pursuant to Section 10 of the Rivers and Harbors Act the Corps has regulatory authority over structures and/or work in or affecting navigable waters of the United States. Under section 404 of the Clean Water Act, the Corps has