



March 9, 2018

Headquarters,
U.S. Army Corps of Engineers
Directorate of Civil Works Operations and Regulatory Community of Practice
441 G Street, NW, Washington, DC 20314
Attention: CECW-CO-OD

Dear Sir/Madam:

In accordance with the provisions of Section 1122(a)-(h) of the Water Infrastructure Improvements for the Nation Act (WIIN) of 2016, and as described in the Federal Register notice published on February 9, 2018, the San Juan Bay Estuary Program respectfully submits the Beneficial Use of Dredged Material Pilot Program Proposal Information for Condado Lagoon. The following proposal information requirements are outlined below:

1. Name and location of the proposed project

Condado Lagoon is located on the northern coast of Puerto Rico, just east of San Juan Harbor. Condado Lagoon is part of the San Juan Bay Estuary system, connected to the San Juan Harbor by the San Antonio Channel and to the Atlantic Ocean through an opening known as El Boquerón. The Condado Lagoon covers an area of about 102 acres and is joined to the Atlantic Ocean in the area known as El Boquerón, just east of Fort San Gerónimo. This body of water is the most diverse aquatic ecosystem in the San Juan Bay Estuary in terms of its marine flora and fauna. For example, coral communities, mangroves, sandy beaches, and seagrass beds all interact in the Lagoon. The lagoon's recreational value is as great as its ecological richness, as it is used by thousands of tourists and residents alike, who enjoy its sandy beaches and practice water sports such as windsurfing, kayaking, and paddle boarding. In 2013, through the Condado Lagoon Estuarine Reserve Act (Law 112-2013), the Puerto Rican legislature designated the Condado Lagoon as the first estuarine/marine reserve in the metropolitan area.



2. Purpose of the proposed project

Restoration of the Condado Lagoon is one of the main objectives of the San Juan Bay Estuary Program's Comprehensive Conservation and Management Plan (CCMP). Specifically, Action HW-2 of the CCMP aims to restore the seagrass beds in the Condado Lagoon. The 102-acre lagoon has suffered severe degradation of its seagrass habitat due to dredging operations during the 1950's and urban development around the lagoon. The purpose of this project is to restore the degraded aquatic ecosystem by reestablishing the historic elevations of Condado Lagoon that will then support expansion of the seagrass communities already present in the Lagoon. This objective is proposed to be accomplished through the beneficial use of two federal water resources projects, San Juan Harbor navigation project and La Esperanza CAP 1135 project.

Increasing the area occupied by seagrass will enhance the fisheries nursery habitats of the Condado Lagoon, including species of commercial and recreational importance. Sport fishermen who currently use the San Antonio Bridge may benefit significantly from this action. Endangered species such as the green sea turtle (*Chelonia mydas*) and the West Indian (Antillean) manatee (*Trichechus manatus*), which depend almost exclusively on seagrasses for their dietary needs, will be positively affected from an increase in their food supply. An increase in the living resources of the lagoon will further enhance the recreational activities that are performed by local residents and the tourists staying at nearby hotels. Water quality also will improve through the functions provided by filling of the dredged holes and supporting seagrass propagation, such as sediment stabilization and oxygen production (CCMP).

3. Description of the proposed project, including more detail on how material will be used beneficially to meet project purposes identified in 2 above

The restoration Condado Lagoon proposes the beneficial use of suitable dredged material from the proposed San Juan Harbor navigation improvements project to be placed in artificial depressions located in the east central portion of the lagoon. These depressions cover an area of approximately 32 acres, with depths up to -35.0 feet, requiring approximately 230,000cy of material. The water quality within these depressions is poor and lacks diversity of native aquatic organisms due to the reduced dissolved oxygen levels and diminished availability of light penetration. The restoration to historical lagoon depths would create areas to promote the natural propagation of seagrasses. The proposed restored depths



would range from 12 feet to 15 feet. The new depth would increase the area for seagrasses, which provide essential habitat and provisions for a variety of estuarine organisms, including federally listed endangered species.

In summary, by beneficially using dredged material and regionally managing sediments from two different federal water resources projects, this proposal has the potential to restore an aquatic ecosystem and promote additional recreation opportunities, in turn providing economic benefits. This proposal is highly supported by the local and Federal agencies, has already had National Environmental Policy Act (NEPA) coordination, implements RSM practices by minimizing the sediments transported to the ocean dredged material disposal site (ODMDS), and would optimize the mobilization of dredges and dredged-related equipment in coordination with the proposed navigation improvements.

4. The name of all non-federal interests planning to act as the sponsor, including any non-federal interest that has contributed to or is expected to contribute toward the non-federal share of the proposed beneficial use project

San Juan Bay Estuary Program (“Programa del Estuario de la Bahía de San Juan”)

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Old San Juan, Puerto Rico.

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5. List the authorized U.S Army Corps of Engineers (Corps) water resources development project(s) that the proposed beneficial use project is associated with

San Juan Harbor Navigation Project – primary source for material to be beneficially used
La Esperanza CAP 1135 – source for capping material, if needed

San Juan Harbor Navigation Project is currently completing a feasibility study for additional widening and deepening improvements of the federal navigation project. The material generated from this proposed navigation improvements project is what was used to develop the cost estimate below for the beneficial use proposal.

La Esperanza is an ecosystem restoration project is located along the western shore of San Juan Bay and was completed on May 20, 2005 under the Continuing Authorities Program, Section 1135 of the Water Resources Development Act (WRDA) of 1986 authority. One



source for capping material within La Esperanza is the north-facing opening into San Juan Bay. The east-facing opening could also provide some material, if needed. Both of these areas have experienced substantial shoaling since the completion of the La Esperanza Ecosystem Restoration Project and would benefit from removal of these sediments for enhanced flushing.

6. Provide an estimate, to the extent practicable, of the total beneficial use project cost, and the federal and non-federal share of those costs.

Type of Work	Cost	Cost-Share	Federal Share	Non-Federal Share
Mob/Demob*	\$ 600,000	65/35	\$ 390,000	\$ 210,000
Transport & Placement**	\$ 1,100,000	100/0	\$1,100, 000	\$0
Turbidity Controls***	\$ 600,000	65/35	\$ 390,000	\$ 210,000
Monitoring****	\$ 400,000	65/35	\$ 260,000	\$ 140,000
Total			\$ 2, 140,000	\$ 560, 000

NOTES:

FY18 Price Levels

*Mob/demob: mobilization/demobilization of any additional equipment required for the beneficial use above what is required for the base plan.

**Transport & Placement (including sandy capping material): Additional transportation & placement costs above the base plan. Assumes hydraulic unloading from San Antonio Channels and Cut-6 to Condado Lagoon placement location. Capping material, with higher sand content, is assumed to be coming from Cut-6 for this estimate. Approximately 25% of the material transported would be used for capping. For the purposes of this estimate, all material is assumed to be coming from the federal navigation project. If additional capping material is needed, La Esperanza would be the most-likely source and would likely cost more- those costs are not incorporated into this estimate.

***Turbidity: Costs for Turbidity controls (turbidity curtains) not required for the base plan.



****Monitoring: Monitoring plan, ESA observer, and turbidity monitoring that is not required for the base plan

The San Juan Bay Estuary Program understands that the incremental costs above the Federal standard for transporting and depositing material from federal navigation project will be borne entirely by the Federal government under Section 1122 of WIIN 2016. The costs for dredging additional material, dredging material from a non-federal navigation project, or for additional activities (e.g., turbidity controls) must be cost-shared (65% federal/35% non-federal) according to Sec 204 of WRDA 1992, as amended.

7. Describe, to the extent practicable, an estimate of the anticipated monetary and non-monetary benefits of the proposed beneficial use project with regard to the environmental, economic, and social benefits of the project

Per the Corps' 2003 Preliminary Restoration Plan, "the objective of ecosystem restoration is to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition. This involves consideration of the ecosystem's natural integrity, productivity, stability and biological diversity." The proposed restoration project would reduce the depth of about 32 acres (0.129 square kilometer) of the Lagoon with a present maximum depth of approximately 35 feet (10.7 meters) to no more than 15 feet (4.6 meters). This action would improve oxygen levels and water circulation across the entire water column, promote the proliferation of sea grass beds, and enhance and increase benthic and fish habitat at the Condado Lagoon and adjacent waters. More specifically, federally endangered species such as the green turtle and the Antillean manatee would be expected to be positively affected by this project. Environmental benefits would be attained by successful implementation of this restoration, in fact, a smaller-scale restoration (1.2 acres) was previously proposed for compensatory mitigation from impacts related to prior navigation improvements.

Recreational activities within the Lagoon (e.g., scuba diving, snorkeling, sailing) enjoyed by local residents and the tourists staying in the area could be translated to social and monetary economic benefits.



8. Describe if local support exists for the proposal

In addition to our support, this proposal is supported by the following agencies and organizations, Puerto Rico Department of Natural and Environmental Resources (DNER), USFWS-CES Caribbean Ecological Services, NMFS Protected Resources Division (PRD) and Habitat Conservation Division (HCD), Puerto Rico Environmental Quality Board (EQB), and Para La Naturaleza (For the Nature).

9. Statement of the non-federal interest's financial ability to provide a share of the project costs.

The San Juan Bay Estuary Program (the "Non-Federal Sponsor") is aware of the financial obligations of the Non-Federal Sponsor for the Condado Lagoon Beneficial Use Project and the Non-Federal Sponsor will have the financial capability to satisfy the Non-Federal Sponsor's obligations for the project.

We appreciate your time and consideration of this proposal and if you have any questions, please do not hesitate to contact me at (787)-638-9979 or Brenda Torres Barreto, Executive Director , at (646) 510-7595, by email to: jbauza@estuario.org and /or btorres@estuario.org, respectively.

Cordially,

Jorge Bauzá-Ortega, Ph.D.
Sciences Director
San Juan Bay Estuary Program

C: All pertinent parties contacted in USACE and pertinent parties from the SJBEP