

How to get involved...



Public comments on the study will be added to the official record for the project. All comments will be addressed in the draft report in a comment matrix. Both written and verbal comments may be received at public meetings by filling out a public comment card, or by speaking during the formal comment period. Public comments can be made at any time during this study. Alternative methods to submit comments are as follows below.



Send an email to: PuertoRicoCoastalStudy@usace.army.mil

Mail a letter to U.S. Army Corps of Engineers,
Attn: PD-PN, 701 San Marco Blvd, Jacksonville, FL 32307



Stay Informed!



Quarterly updates and project documents on the project website:

<https://www.saj.usace.army.mil/PuertoRicoCSRMEFeasibilityStudy/>



Sign up for the mailing list to receive a copy of this quarterly newsletter.

Follow us!



This is the first in a series of newsletters to keep informed of the progress of the U.S. Army Corps of Engineers (USACE) Puerto Rico Coastal Feasibility Study, in partnership with Department of Natural and Environmental Resources (DNER).

PUERTO RICO COASTAL Study Newsletter



US Army Corps
of Engineers®



Jacksonville District Summer 2019 | Issue 1

CORNER

COMMANDER'S



COL Andrew D. Kelly
District Commander

The Corps of Engineers received \$17.3 billion thanks to the Bipartisan Budget Act of 2018, which provides us with funding and authority to address impacts caused by natural disasters. The Jacksonville District was allocated \$3.348 billion for long term recovery investments in our area of responsibility. The funding will go towards 14 studies and 19 construction projects that will reduce risk to our communities in Florida, Puerto Rico and the U.S. Virgin Islands, which were directly affected by recent storm events. Two such studies are the San Juan Metro (back bay) and the Puerto Rico Coastal (shoreline). Our teams are working hard to reduce damages and increase resilience for the areas in the studies. Let's work together to make the results something we can all be proud of. As we say in the Corps, Essayons!

Sincerely,
Col Andrew Kelly
Commander,
Corps of Engineers, Jacksonville
District

STUDY PURPOSE & AUTHORIZATION

Authority for the Puerto Rico Coastal Storm Risk Management (CSRM) study is granted under Section 204 of the Flood Control Act of 1970, Public Law 91-611. Study funds were appropriated under Bipartisan Budget Act of 2018 115-123. Corps feasibility studies under this authorization are required to be completed in 3 years and with \$3M or less.

The study will evaluate alternatives to potentially reduce hurricane and storm damages to public infrastructure, residential and commercial buildings. If the Selected Plan is supported by Corps decisions makers, it will receive an approved Chief's Report recommending it for construction. The Department of Natural and Environmental Resources (DNER) is the non-Federal sponsor for this study.

CURRENT ACTIVITIES

The study team is working on capturing the existing conditions and developing the Future Without Project (FWOP) conditions. The FWOP conditions is a forecast describing what is expected to happen if no action is taken to solve the problems or realize the opportunities. This information is used in order to screen the management measures and start formulating Preliminary Alternatives. These are some of the tasks in which the team is currently working on:

- Beach-fx Model set up for FWOP – January 2019 to May 2019.
- FWOP Model Development – June 2019 to October 2019.
- Future with Project (FWP) Model Development & Plan Formulation – November 2019 to February 2020

RECENT PUBLIC EVENTS

The USACE, Jacksonville District hosted an open house meeting for the Puerto Rico Coastal Study on June 18, 2019, at the Ventana Al Mar Convention Center in Rincon, Puerto Rico.

The purpose of this meeting was to provide updates referent to the initial scoping process. The public was informed about the criteria used in narrowing of the study areas in order to select focus areas with possible Federal interest.



STUDY AREA

The DNER provided the team with initial areas of interest, which included twelve municipalities; Aguadilla, Aguada, Rincon, Añasco, Mayaguez, Cabo Rojo, Arecibo, Vega Baja, San Juan, Loiza, Luquillo and Humacao.

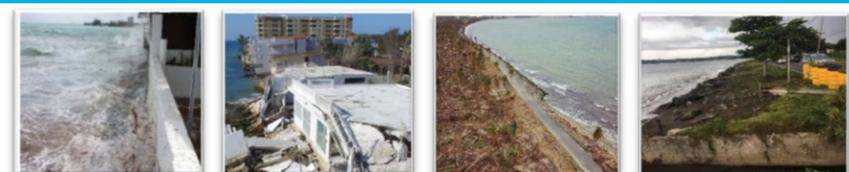
During the initial scoping process the team had to make important determinations as to which reaches had the most potential for Federal action and which had the highest priority of need, fitting within the USACE guidance. Out of the initial 12 municipalities, only San Juan, Rincon, Mayaguez and Humacao study reaches will be carried forward in the present study, and may be further de-scoped if Federal Interest cannot be ensured, once the team completes initial modeling, during Fall 2019.



PLAN FORMULATION

PROBLEMS IN THE STUDY AREA

Storm damages to property and infrastructure due to wave attack, inundation, and erosion occur in Puerto Rico island-wide. These problems from storms and hurricanes have been increasingly evident in Puerto Rico over the recent past, with special attention on the storm season in 2017 which left severe destruction from Hurricane Irma and Maria, followed by winter storm Riley in 2018.



STUDY OBJECTIVES

- Manage the risk of damages from wave attack, erosion, and flooding caused by storms
- Maintain environmental quality in the project area
- Maintain recreation

STUDY OPPORTUNITIES

- Protect/enhance habitat/environmental resources
- Reduce risk of damage to major hurricane/tsunami evacuation routes
- Retain recreation: Area depends heavily on tourism, as well as aesthetic quality for community

STUDY CONSTRAINTS

- Avoid or minimize impacts to cultural resources, reef resources, and submerged vegetation.
- Avoid impacts to critical infrastructure

STUDY REACHES

- San Juan Coastline:** From El Boqueron to Boca de Cangrejos ~ 8 miles including Condado Beach, Ocean Park, Isla Verde, and Carolina
- Rincón Coastline:** From Punta Ensenada to Stella, including Corcega ~ 2.5 miles
- Evacuation Route Focus:** Mayaguez, road protection PR-102 Humacao, road protection PR- 3

Plan formulation is the process of developing alternative plans to address a given problem. The Corps uses a 6 step planning process:

- 1 Problem Identification
- 2 Inventory Existing Conditions and Forecast Future Conditions
- 3 Formulate Alternatives
- 4 Evaluate Alternatives
- 5 Compare Alternatives
- 6 Select a Plan

In order to formulate alternative plans the team identified preliminary management measures. A management measure is a structural or nonstructural action that can be implemented at a specific geographic site to address one or more planning objectives. Natural and nature-based measures are also encouraged under current policy. Measures are then screened against planning criteria, including objectives and constraints, and are combined into alternative plans.

ECONOMICS

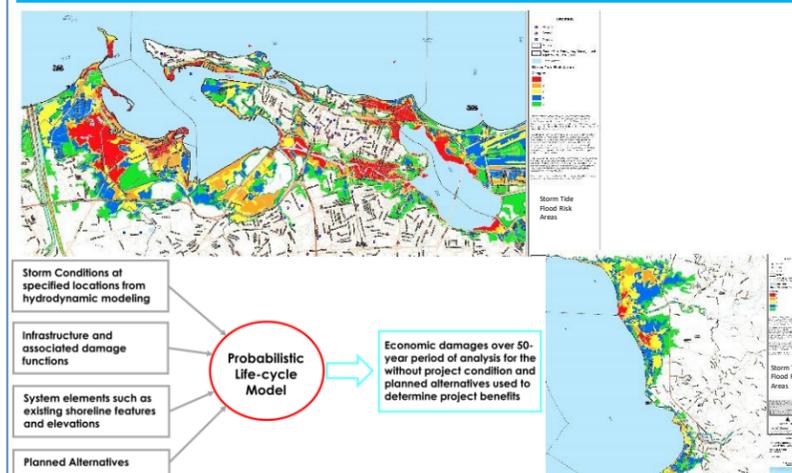
- USACE uses four accounts to track benefit categories.
- National Economic Development (NED):** This account is the most important of the four accounts as it is used for economic justification of Federal Interest. Benefits of damage reduction must be greater than the cost to implement the project; the benefit to cost ratio (BCR) must be greater than 1.
 - Environmental Quality (EQ):** This account displays nonmonetary effects on significant natural and cultural resources.
 - Other Social Effects (OSE):** This account registers plan effects from perspectives that are relevant to the planning process, but are not relevant in the other three accounts. Aspects of each area related to public safety, maintenance of recreation, or other social effects would be examined.
 - Regional Economic Development (RED):** This account measures the potential for temporary or permanent growth in the local economy attributable to the proposed Federal action.

ENVIRONMENTAL & CULTURAL RESOURCES

The National Environmental Policy Act (NEPA) is a federal law enacted in 1969. As required by NEPA, the Corps will assess potential environmental effects of alternatives, to include cultural resources and the human environment. The findings will be explained in a NEPA document, which will be integrated into the Draft and Final feasibility Report. The NEPA document will be available for public review and comment before any decisions are made or actions are taken. Your input helps the Corps in identifying key environmental issues that may need to be evaluated.



ENGINEERING & MODELING



The engineering analysis for this study will consider the natural coastal processes, geological setting, existing coastal armor in the study area, as well as sea level rise scenarios. The team will leverage data and local expertise from the sponsor (PR DNER) and other groups (PR Academia, stakeholders, Federal agencies, and others) along with modeling in order to fully understand the problem(s) and develop alternatives to reduce storm damages within the study area.

TENTATIVELY SELECTED PLAN & BENEFITS

The Tentatively Selected Plan will be the NED plan, and may provide incidental benefits to the community, depending on plan formulation. The Corps uses three additional accounts to qualitatively describe other benefits of the plan (which do not factor into the quantitative economic benefits). These are Environmental Quality (which could include positive effects for sea turtle nesting, reef habitat, etc), Other Social Effects (which could include resilience to the community), and Regional Economic Development (which could be job creation, etc).

ESTIMATED STUDY SCHEDULE



*Contingent on authorization and appropriations