

PUBLIC SCOPING MEETING

PUERTO RICO

COASTAL STORM RISK MANAGEMENT STUDY

Integrated Feasibility Study & National Environmental Policy Act (NEPA)

AGENDA

- **Open House/Poster Session** 2:00 p.m.
- **Welcome & Introductions** 2:30 p.m.
- **Presentation/Public Comments/Open House** 2:40 p.m.
- **Adjourn** 4:00 p.m.



COASTAL STORM RISK MANAGEMENT STUDY

Puerto Rico

Public Scoping Meeting

Presented by:
Gina Ralph
U.S. Army Corps of Engineers, Jacksonville District

November 6, 2018



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PUBLIC SCOPING MEETING PURPOSE

Puerto Rico

Integrated Feasibility Study & National Environmental Policy Act (NEPA)

U.S. ARMY ENGINEER CORPS OF ENGINEERS
JACKSONVILLE DISTRICT

U.S. Army Corps of Engineers

SUBJECT: Puerto Rico Coastal Storm Risk Management Study Scoping Meeting
DATE: Nov. 6, 2018
LOCATION: Aguadilla, Puerto Rico

NAME AND TITLE (PLEASE PRINT) _____
BUSINESS OR ORGANIZATION YOU REPRESENT _____
MAILING ADDRESS _____
CITY, STATE, ZIP CODE _____
EMAIL ADDRESS _____

REPRESENTING (check one)
 ELECTED OFFICIAL
 TRIBAL
 CONGRESSIONAL
 FEDERAL AGENCY
 STATE LEGISLATURE
 STATE AGENCY
 LOCAL GOVERNMENT
 ENVIRONMENTAL
 AGRICULTURE
 GROUP
 SELF
 MEDIA

Do you wish to make a statement? _____ YES _____ NO

Do you wish to have your name included on the mailing list for future information? _____ YES _____ NO

THIS INFORMATION IS RELEASABLE UNDER THE FREEDOM OF INFORMATION ACT. (See reverse side.)

- Discuss study purpose and process
- Provide a venue for public comment & input

End of Scoping Comment Period:
November 16, 2018



OVERVIEW OF THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

NEPA is a Federal law that requires federal agencies to consider the environmental impacts of a proposed project that are:

- Major Federal Actions that may have significant effect on the quality of the human environment



GOALS OF NEPA

- Solicit and consider public views on proposals
- Consult with Federal and Commonwealth agencies and local governments concerning plans
- Provide agencies with a mechanism to coordinate overlapping, jurisdictional responsibilities



NEPA REQUIREMENTS

Ten significant factors to measure the intensity of potential impacts on the surrounding environment:

- Adverse effects associated with “Beneficial Projects”
- Effects on public health and safety
- Unique characteristics of the geographical area
- Degree of controversy
- Degree of uncertain effects, unique or unknown risks
- Precedent-setting effects
- Cumulative effects
- Effects on scientific, cultural or historical resources
- Effects on endangered or threatened species, habitat
- Violations of Federal, state or local environmental law

PUERTO RICO COASTAL STORM RISK MANAGEMENT STUDY

WHY NOW?

- Study initiation authorized under Section 204 of the Flood Control Act of 1970, Public Law 91-611.
- Study funds appropriated under Bipartisan Act of 2018 (PL 115-123).
- Initially looking at over 100 miles of shoreline.
- Scope will be reduced to <10 miles.
- Will recommend a project to reduce hurricane and storm damages to homes, buildings & other important structures.
- The Puerto Rico Department of Natural and Environmental Resources (DNER) is the local sponsor for the project.



PUERTO RICO COASTAL STORM RISK MANAGEMENT STUDY

COASTAL CONCERNS ISLAND-WIDE



Barrero (Rincon), PR – Road vulnerability to damage- 2015



Playa Fortuna (Luquillo), PR
Erosion – 2015



Rincon, PR – Damages post Hurricane Maria



BUILDING STRONG

PUERTO RICO COASTAL STORM RISK MANAGEMENT STUDY ENVIRONMENTAL CONSIDERATIONS

AESTHETICS



CULTURAL RESOURCES



ESSENTIAL FISH HABITAT



THREATENED & ENDANGERED SPECIES



WILDLIFE RESOURCES



CORAL/HARDBOTTOM



TURBIDITY



RECREATION



- Aesthetics
- Air Quality
- Archaeological/Cultural Resources
- Essential Fish Habitat
- Contaminants
- Noise
- Recreation
- Benthic Resources
- Socioeconomics
- Turbidity
- Wildlife Resources
- Threatened and Endangered Species



BUILDING STRONG

PUERTO RICO COASTAL STORM RISK MANAGEMENT STUDY

PLANNING & ENGINEERING CONSIDERATIONS

- Study area scope will be reduced
- Array of alternatives will be assessed and modeled to determine the alternative which best addresses the primary study objective to reduce coastal storm damages.
- The alternatives could include but are not limited to stand alone or combinations of soft structures (beach and dune), hard structures (seawalls, breakwaters, reefs, rock revetment), and non-structural alternatives (flood proofing).

Examples of Types of Solutions

Beach Nourishment



Dunes and Vegetation



Artificial Reefs



Rock Revetment



PUERTO RICO COASTAL STORM RISK MANAGEMENT STUDY

ECONOMIC CONSIDERATIONS

Plans recommending Federal participation should represent an alternative that achieves the greatest net benefits consistent with protecting the environment

BENEFITS

Primary: Storm damage reduction

Secondary: Recreation

COSTS

- Cost of alternative over a 50 year period of Federal participation
- Associated costs

$$\frac{\text{BENEFITS}}{\text{COSTS}} > 1$$

In addition, plans must have a positive benefit to cost ratio.

$$\text{CSRM BENEFITS} = \text{ESTIMATED \$ DAMAGES WITHOUT PROJECT} - \text{ESTIMATED \$ DAMAGES WITH PROJECT}$$



PUERTO RICO COASTAL STORM RISK MANAGEMENT STUDY FEASIBILITY STUDY – UP TO 36 MONTHS

ESTIMATED STUDY SCHEDULE



PUERTO RICO COASTAL STORM RISK MANAGEMENT STUDY COMMENT OPPORTUNITIES

COMMENTS DUE: NOVEMBER 16, 2018

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