



US Army Corps
of Engineers
Norfolk District

MIAMI-DADE COUNTY, FLORIDA

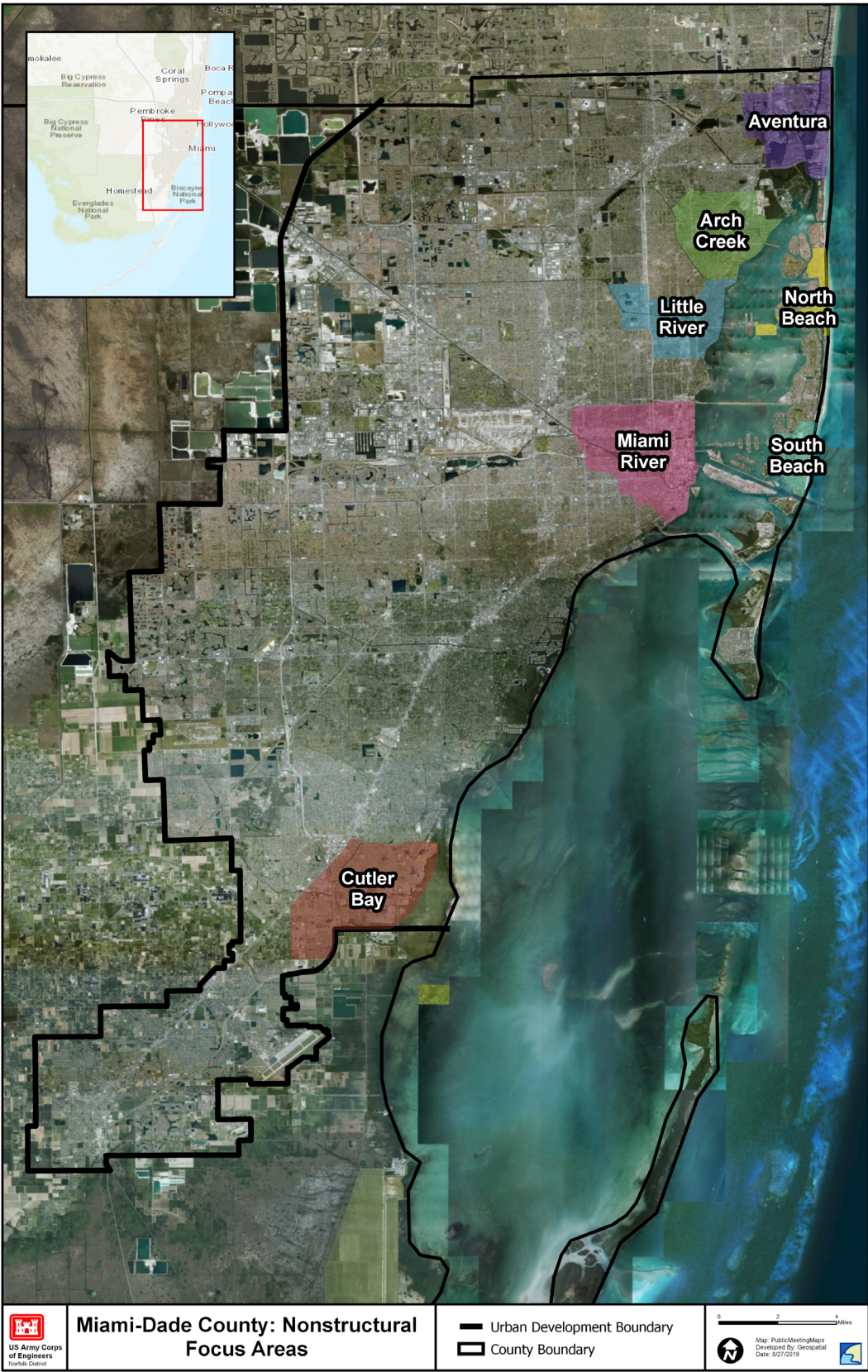
Coastal Storm Risk Management Feasibility Study



Study Background and Introduction

The Miami-Dade Back Bay Coastal Storm Risk Management (CSRM) Study is a comprehensive feasibility study to promote resiliency and reduce the risk of coastal storm damage. The study will develop and evaluate implementable CSRM structural, nonstructural, and natural and nature-based feature measures for Miami-Dade County which will be formulated to reduce risk to residents, industries, businesses, and infrastructures which are critical to the nation’s economy. Miami-Dade County has high levels of risk and vulnerability to coastal storms which will be exacerbated by combinations of sea level rise, saltwater intrusion, and climate change over the study period. A national economic development plan will be identified based on the solution that most reasonably maximizes the benefits compared to project costs. Benefits could include things such as avoided losses and reduced property damages. Costs could include elements such as construction costs, operation and maintenance, environmental mitigation, or real estate costs.

Study Area and Scope



Study Area

The study area is the entirety of the urbanized Miami-Dade County Back Bay area, which is located on the southeast coast of Florida. The county has a population of approximately 2.8 million people, making it the most populous county in Florida and the seventh most populous in the United States. There are 34 municipalities within the county, the largest of which is the City of Miami. The U.S. Army Corps of Engineers (USACE) Norfolk District maintains ongoing coordination with the non-Federal sponsor, Miami-Dade County, throughout the entire project timespan.

Study Scope

The scope of the study will focus on critical infrastructure and areas of the county that exhibit high levels of risk and vulnerability to coastal storms resulting in repetitive economic losses. The county has an urban development boundary (UDB) that is designed to limit urban sprawl in order to protect rural and natural resource areas. Project recommendations will focus on reducing flood risk to areas within the UDB. However, if critical infrastructure are located outside the UDB, these facilities will be assessed on a case by case basis. By focusing on the areas within the UDB the project will maximize benefits and avoid potential encouragement of future development outside the UDB.

Critical Infrastructure

Critical Infrastructure Categories

Critical infrastructure is distributed all throughout Miami-Dade County Back Bay and includes county, municipality, and non-public assets. USACE Norfolk and MDC coordinated to create a list of critical asset types to address within the UDB including:

- **Fire Stations**
- **Medical Facilities** – Significant hospital facilities accessible to the general public
- **Police Stations** – Identified as an asset category owned by MDC and municipalities
- **Potable Water Facilities**
- **Emergency Shelters** – Identified locations for severe weather sheltering and recovery assistance
- **Wastewater Facilities** – May include treatment plants and pump stations



Proposed Measures and Alternatives

Focus Area	Proposed Measures
Aventura	Nonstructural
Cutler Bay	Nonstructural + Mangrove Restoration
Little River	Surge Barrier + Nonstructural
Miami River	Surge Barrier + Floodwall + Nonstructural
North Beach	Nonstructural
South Beach	Nonstructural
Arch Creek	Surge Barrier + Nonstructural

What is a Measure?

A measure is a feature or an activity that can be implemented at a specific geographic site to address one or more project objectives. Measures are the building blocks of alternative plans.

Examples of Nonstructural Measures



ElevationRelocation

Feasibility Process and Study Schedule

SMART Study Process

The USACE Civil Works project planning process informs Congress as it makes decisions for authorizing and funding water resources investments for the nation. USACE SMART Planning is **S**pecific, **M**easurable, **A**ttainable, **R**isk informed, and **T**imely. A SMART Planning feasibility study includes three decision milestones as depicted in the graphic to the right. These milestones mark key planning decisions along the path to an effective and efficient study.



In addition to the planning decision milestones, there are several product milestones. The key product milestones for this study are the release of the draft report for public comment and the signed Chief’s report. The anticipated schedule for these SMART Planning feasibility study milestones is shown in the table below.

Milestone	Date Scheduled/Completed
Federal Cost Share Agreement Execution	October 2018
Alternatives Milestone	January 2019
Tentatively Selected Plan (TSP) Milestone	January 2020
Draft Report Released for Public Comment	March 2020
Agency Decision Milestone	June 2020
Chief of Engineer’s Report Signed	September 2021

The end of the feasibility study process is marked by the approval of a Chief’s Report, which provides the Assistant Secretary of the Army for Civil Works (ASA(CW)) with the findings of the feasibility study and recommends a Federal project for authorization. Once the Chief’s Report has been signed by the USACE Chief of Engineers, it is transmitted to the office of the ASA(CW) and Office of Management and Budget (OMB) for review. After the ASA(CW) and OMB approve, the Chief’s Report is sent to Congress, specifically the House Committee on Transportation and Infrastructure and Senate Committee on Environment and Public Works, to be authorized into law. Once authorized, Congress must appropriate funds for the project to be implemented. Construction of the recommended project can be expected to begin in approximately five-to-ten years.

Next Steps

- Documentation of public comments
- Completion of economic analysis of the alternatives being considered
- Decision of the tentatively selected plan and decision briefing at TSP milestone meeting in January 2020