

New Jersey Back Bays Coastal Storm Risk Management Feasibility

- **Authority:** U.S. House of Representatives and U.S. Senate Resolutions in December 1987
- **Congressional Districts:** NJ-2, NJ-3, NJ-4, NJ-6
- **Non-Federal Sponsor:** New Jersey Department of Environmental Protection
- **Date of Project Agreement:** April 2016
- **Target Completion Date:** April 2019
- **Total Estimated Cost:** \$3M
- **Locations:** Sections of Monmouth, Ocean, Burlington, Atlantic and Cape May Counties



U.S. Army
Corps of Engineers



New Jersey Department of
Environmental Protection



Historic storms, including Hurricane Sandy, have severely impacted the back bay communities of coastal New Jersey. The New Jersey Back Bays (NJBB) Study developed out of the larger North Atlantic Coast Comprehensive Study (NACCS) which identified nine high-risk areas on the Atlantic Coast for further in-depth analysis.

The NJBB study area is located behind the New Jersey barrier islands of Monmouth, Ocean, Burlington, Atlantic and Cape May Counties and includes the set of interconnected water bodies and coastal lakes that are separated from the Atlantic Ocean.

The purpose of the study is to investigate Coastal Storm Risk Management (CSRМ) strategies and solutions to reduce damages from coastal flooding affecting population, critical infrastructure, critical facilities, property, and ecosystems. The NJBB Study is being performed to align with the goals of the North Atlantic Coast Comprehensive Study (NACCS), which are to:

- Provide a risk management framework, consistent with and NOAA/USACE Infrastructure Systems Rebuilding Principles; and
- Support resilient coastal communities and robust, sustainable coastal landscape systems, considering future sea level and climate change scenarios, to reduce risk to vulnerable populations, property, ecosystems, and infrastructure.

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Project Opportunities:

- Flood risk is increasing for coastal populations and supporting infrastructure.
- Improved land use, responsible evacuation planning, and strategic retreat are important and cost-effective actions.
- Combinations of solutions: nonstructural, structural, natural/nature-based
- Communities must identify acceptable level of residual risk to plan for long-term
- Opportunities to improve risk management, including collaboration, building new partnerships to strengthen pre-storm planning.
- Resilience through use of a CSRM framework and commitments to advance sea level and climate change science, storm surge modeling and related themes.

Study Process

The study will consider past, current, and future coastal storm risk management and resilience planning initiatives and projects underway by the USACE and other Federal, State, and local agencies. Three overarching efforts will be performed:

- Assess the study area's problems, opportunities and future without project conditions;
- Assess the feasibility of implementing system-wide coastal storm risk management solutions such as policy/programmatic strategies, storm surge barriers at selected inlet entrances, or tidal gates at selected lagoon entrances;
- Assess the feasibility of implementing site-specific perimeter solutions such as a combination of structural, non-structural, and natural and nature-based features; and
- Assess the impacts of back bay strategies and solutions on the Atlantic Coast CSRM Program towards developing recommendations within a systems context given likely future scenarios.

The end product of this study will be a decision document in the form of a Chief's Report authorizing comprehensive USACE design and construction opportunities using the full array of CSRM strategies and measures.

Also included in the report: recommendations of actionable and policy implementable items for non-USACE entities, potentially including floodplain management, landscape architecture, hurricane evacuation plans, and Community Rating System enhancement opportunities. Additional recommendations will be provided for incorporating existing USACE and external programs, projects, plans and actions into the NJBB framework. Environment impacts will be assessed through the National Environmental Policy Act.

Full Array of Coastal Storm Risk Management Measures

