

# North Atlantic Coast Comprehensive Study

Project Management Plan  
(PMP)  
Scope Synopsis  
August 2013

U.S. Army Corps of Engineers, Coastal Storm Risk Management Planning Center of Expertise

## Schedule

Feb-March 2013 -

Development of scope of analyses

April 2013 - Interagency collaboration on scope of analyses

June 2013 - Launch of public website; Federal Register notice

June 2013 – Modeling and Measures Working Meetings

July - Dec 2013 – Webinar Collaboration Series (topics include green/nature based features, modeling, ecosystem goods and services, adaptive management and others)

Winter/Spring 2014 - Interagency & international validation & collaboration

Summer 2014 – Begin finalizing report and routing for reviews

January 2015 - Final Report due to Congress

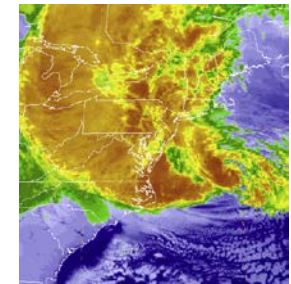
## Overview

The goals of the North Atlantic Coast Comprehensive Study authorized under the Disaster Relief Appropriations Act, Public Law 113-2 are to (1) reduce flood risk to vulnerable coastal populations, and (2) promote coastal resilient communities to ensure a sustainable and robust coastal landscape system, considering future sea level rise and climate change scenarios.

In addition, the Comprehensive Study will identify activities

warranting further analysis and institutional barriers to comprehensive implementation.

The Congressional response to the devastation in the wake of Hurricane Sandy included a mandate to collaborate with federal, state, tribal and local government agencies to regionally address the vulnerability of coastal populations at risk in the U.S. Army Corps of Engineers (USACE) North Atlantic Division. The Act provides USACE up to \$20 Million (\$19 Million after



sequestration) to conduct the study. A final report of the study team's analyses is due to Congress in January 2015.

The study will identify those areas warranting more detailed evaluations; however, USACE is not authorized to develop designs or implement such projects at this time. No NEPA documentation will be produced.

Sign up for updates on the study's progress at (<http://www.nad.usace.army.mil/CompStudy>).

## Study Area

Sandy caused water levels to rise along the entire east coast of the United States from Florida northward to Maine. The highest storm surges and greatest inundation on land occurred in the states of New Jersey, New York, and Connecticut, especially in and around the New York City metropolitan area. In many of these locations, especially along the coast of central and northern New Jersey, Staten Island, and southward-facing shores of Long Island, the

surge was accompanied by powerful damaging waves.

The study area, encompassing approximately 31,000 miles of coastline, will include areas:

- (1) Within the Civil Works boundary of CENAD,
- (2) With vulnerable coastal populations,
- (3) Affected by Hurricane Sandy during the October 27-31, 2012 period. "Affected"

may include, but is not limited to, areas which received damage or effects of Hurricane Sandy (such as increased flooding, sand deposition, wind damage, erosion, surge, etc.), received Federal disaster declarations, had flood insurance claims, exercised emergency actions, received damage to existing hurricane and storm damage reduction projects, etc.

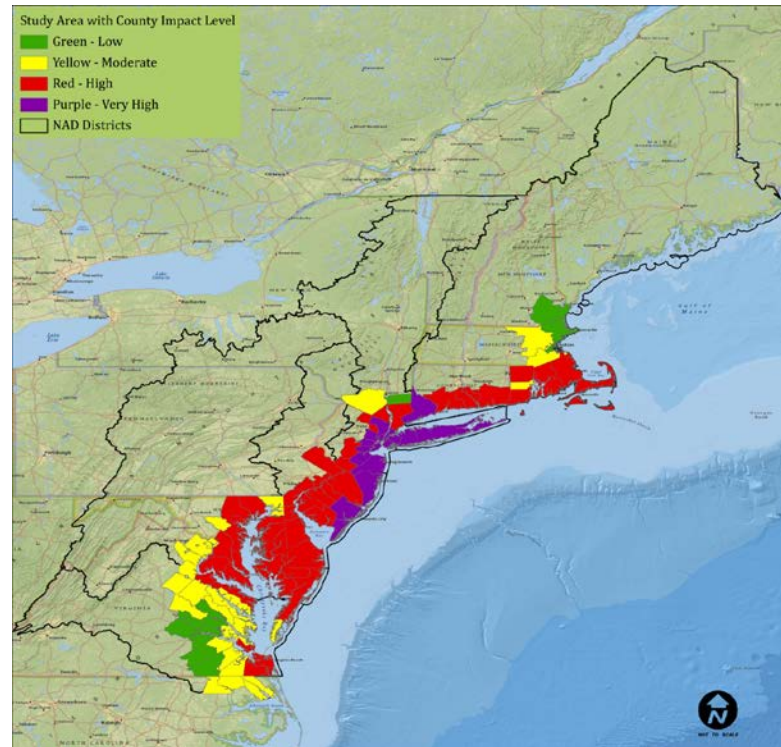


## Products

- NACCS Framework with State appendices (including interim reports #1 and #2, and performance evaluation report, as required by the legislation)
- Geodatabase of data collected and used as part of the study
- Policy and institutional barriers to comprehensive risk reduction implementation
- Identification of areas and activities warranting further analysis
- Storm Suite Modeling
- Economic Depth-Damage Curves, including secondary and tertiary effects and loss of life impacts
- Planning Aid Report with USFWS and NMFS
- Community Resiliency Survey
- Green/Nature Based Features Evaluation Framework
- Conceptual Regional Sediment Budget for NAD
- Social Vulnerability analysis



## Study Area Map



## Key Analysis and Assumptions

**Existing and Post-Sandy Future Conditions** will be characterized as current risk reduction projects and features, and socio-economic, environmental, cultural and related conditions that exist now (2013) and within the next 5 years (2018). This creates the baseline from which future measures will be evaluated with regard to reducing coastal flood risk and promoting resiliency.

**Sea Level Rise** - Evaluation scenarios will include 2018, 2068, 2100 and 2118; accounting for USACE and NOAA policies on sea level change for long-range planning. Evaluations will

also include storm surge and storm tide combinations.

**Climate Change** - Sea level rise will be considered as described above; however, the state of the science precludes detailed evaluations of climatology, storm frequency and severity, landfall trends, etc. at this time.

**Coastal Flood Risk** - Risk areas will be depicted as the 100-year floodplain, preliminary base flood elevations (PBFE)+1 to account for sea level rise (PBFE+3 for New York City), and the worst case, maximum of maximum

Category 4 hurricane.

### **Development of Vulnerability Metrics** -

Metrics for social, environmental and population and infrastructure vulnerability will be developed and/or utilized to identify high risk areas. In addition, analyses will be included for nine areas representing the extent of the North Atlantic coastline: coastal Rhode Island; coastal Connecticut; Nassau County, NY; NY Bay its tributaries and Jamaica Bay; Back Bays, NJ; Back Bays, DE; City of Baltimore; Washington, DC; City of Norfolk.

## The USACE Team

**North Atlantic Division**  
302 General Lee Avenue  
Brooklyn, NY 11252  
347-370-4550 | [Email](#)

### [Institute for Water Resources](#)

7701 Telegraph Rd (Casey Bdg)  
Alexandria, Va 22315  
703-428-8015 | [Contact](#)

### [Engineer Research & Development Center](#)

3909 Halls Ferry Road  
Vicksburg, MS 39180-6199  
601-634-3188 | [Email](#)

## More Key Analysis and Assumptions

### **Development of Risk**

**Reduction Measures** - Risk reduction measures will include a suite of structural, non-structural, sacrificial, and programmatic options. The approximate 31,000 miles of shoreline will be segmented into 38 reaches based on geologic and physical characteristics, with the most appropriate measures and their planning-level costs, anticipated risk reduction, benefits, constraints/challenges, etc being highlighted per reach.

### **Green/Nature Based Features, Ecosystem Services and Regional Sediment Management** -

Natural features (e.g., barrier islands, wetlands, oyster beds, riparian corridors) situated within the landscape that provide services (e.g., erosion control, reduced flooding, surge absorption) that could otherwise be provided by built infrastructure.

### **Interagency Collaboration** -

Federal, state, tribal, and non-governmental agency coordination letters were

sent in June 2013 and a Federal Register notice was published 19 June 2013. Interagency subject matter experts are engaged on the technical teams and through a Collaboration Webinar Series.

**Public Outreach** - A website ([www.nad.usace.army.mil/CompStudy](http://www.nad.usace.army.mil/CompStudy)) was launched 28 May 2013. Study information, progress updates, links to interagency websites, and on-line surveys will be used to engage the public.

## Definitions

**Risk** - The risk of a coastal storm event is its probability of occurrence multiplied by the consequences. The consequences are measured in terms of potential damage to people and their property and public infrastructure.

**Vulnerability** - is a way of comparing the relative risk of a coastal storm event to which different places are subject. An area can be more vulnerable by having a higher probability of occurrence of a coastal storm event or by having more people and property susceptible of being damaged by a coastal storm event, or both.

**Resiliency** - ability to avoid, minimize, withstand and recover from the effects of adversity, whether natural or manmade; inclusive of engineering, ecological and community resilience.

**Resistance** - the ability of a system or structure to avoid failure

**Redundancy** - duplication of critical components of a system with the intention of increasing reliability of the system.

**Robustness** - ability of a system to continue to operate correctly across a wide range of conditions (the wider the range of conditions, the more robust), with minimal damage, alteration or loss of functionality.

