

### Synthesis and Next Steps – How to Build Partnerships for Success



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# The South Atlantic Coastal Study: Creating a Shared Vision to Address Coastal Vulnerability

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## Law, Guidance & Funding

### Section 1204, WRDA'16

- (a) Identify risks and vulnerabilities of [coastal areas within SAD AOR] to increased hurricane and storm damage as a result of sea level rise (SLR).
- (b)(1) Conduct a comprehensive analysis of current CSRM measures with an emphasis on RSM practices to sustain/enhance current storm protection.
- (b)(3) Recommend measures to address coastal vulnerability of areas affected by SLR.
- (b)(4) Develop a long-term strategy to address increased hurricane/storm damages resulting from SLR and identify opportunities to enhance resiliency and lower risks
- (c) Submit a report recommending specific and detailed actions.

### <u>Guidance – Nov. 16, 2017</u>

- Follow planning guidance applicable to watershed assessments.
- Integrated NEPA as appropriate (SACS will not include NEPA).

### P.L 115-123

• 100% Federal funding in the amount of \$16M





## SOUTH ATLANTIC COASTAL STUDY (SACS) STUDY GOALS:

### 1. Provide a Common Operating Picture of Coastal Risk

- Provide decision-makers at all levels with a comprehensive and consistent regional assessment of coastal risk.
- 2. Identify High-Risk Locations and Focus Current and Future Resources
  - Enable resources to be focused on the most vulnerable areas.
- 3. Identify and Assess Risk Reduction Actions
  - Assess actions that would reduce risk to vulnerable coastal populations.





## SOUTH ATLANTIC COASTAL STUDY (SACS) STUDY GOALS:

- 4. Promote and Support Resilient Coastal Communities
  - Ensure a sustainable coastal landscape system, considering future sea level rise scenarios and climate change.
  - Provide information to stakeholders to optimize existing efforts to reduce risk.

### 5. Promote Sustainable Projects and Programs

- Develop and provide consistent foundational elements to support coastal studies and projects
- Regionally manage projects through Regional Sediment
  Management and other opportunities

### 6. Leverage Supplemental Actions

 Multiple supplemental studies and construction efforts will inform, and be informed by, the SACS.



## SOUTH ATLANTIC COASTAL STUDY (SACS)



# SACS PRODUCTS

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- Project Performance Evaluation
- State Appendices & Focus Area Action Strategies
- Coastal Program Guide
- Natural and Nature-Based Features Report
- Coastal Hazard System
- Tier 1 Risk Assessment
- SACS Geoportal →
- Sand Availability and Needs Determination (SAND)
- RSM Optimization
- Detailed Measures and Costs Library





## TIER 1 RISK ASSESSMENT



**Exposure:** Number of assets, people, sensitive environment and cultural resources within the hazard footprint.

#### **Three Exposure Indices**

- 1. Infrastructure and Population
- 2. Environmental and Cultural Resources
- 3. Social Vulnerability

**Hazard:** Footprint of the hazard and probability of the hazard (Large footprint / Low Probability; Small Footprint / High Probability).

#### Three Extreme Water Level Events\*

- 1. Category 5 Hurricane Maximum of Maximums
- 2.1% Annual Chance Flood (100 yr storm)
- 3. 10% Annual Chance Flood (10 yr storm)

\*Sea level rise is included by adding 3 feet to the 1% and 10% events

**Risk =** Composite Exposure Index  $\mathbf{x} \ \mathcal{F}$  (Hazard)







## **State Appendices**

Executed by District PDTs for each state.

### Scope:

- State-specific conditions and info relevant to comprehensive CSRM strategies.
- Key Components
  - Environmental, cultural, and social data.
  - Existing and future conditions based on risk assessment.
  - Stakeholder studies/plans to address risk and how SACS can support.
  - Focus area identification.
  - Tier 2 Focus Area Action Strategies:
    - Multi-disciplinary/multi-agency teams
    - Measures for actionable solutions







## **Coastal Program Guide**

**Scope:** Outreach and information package for states/territories. A resource for relevant Federal and non-federal programs and contacts relevant to all states/territories. Information from the North Atlantic Coastal Comprehensive Study (NACCS) will be leveraged and provide specific state/territory info in state appendices.



## **Natural and Nature-Based Features Report**

**Scope**: Technical document (e.g. tech note or tech report) focused on NNBF topics to be of use to Focus Area Action Strategies- may be rolled Into State appendices.

Review and leveraging of NACCS and current products/research in coordination with USACE Engineering Research and Development Center. Compilation of relevant technical information with additional information as needed and relevant to the study area.

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## **COASTAL HAZARD SYSTEM**

Through the USACE Coastal Hazards System website, users can download model results related to:

- Meteorological conditions
- Wave climate
  - (wave height, wave period)
- Storm Surge elevations
  - (10yr, 100yr, 1000yr)
- Storm Tracks
  - (pressure center, translational speed)
- NDBC and NOAA wave climate and water levels
- Statistics related to storm probabilities

U.S.ARMY

### **CHS** Products

https://chswebtool.erdc.dren.mil/

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## Sand Availability and Needs Determination (SAND)

### Scope:

- Examine all federal and non-federal beaches/projects within the limits of the SAD footprint with regard to need and availability of sediment to maintain beaches for the next 50 years.
- Sources will include offshore (federal & state), RSM NAV sources, upland DMMA sources, as well as existing economically, environmentally, and socially viable upland mine sources.





# **Overall Study Schedule**

(Watershed Study Guidelines)

- Study Initiation: August 2018
- Stakeholder Vision Meeting #1: February 2019
- Vision Meeting #2: 2<sup>nd</sup> week in May 2019
- Kickoff for State Appendix development: July 2019
- Interim Deliverables: July 2019-Aug 2021 (CHS, SAND) Draft Report: August 2021
- Final Report to HQ: August 2022





# **Contact Information**

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