

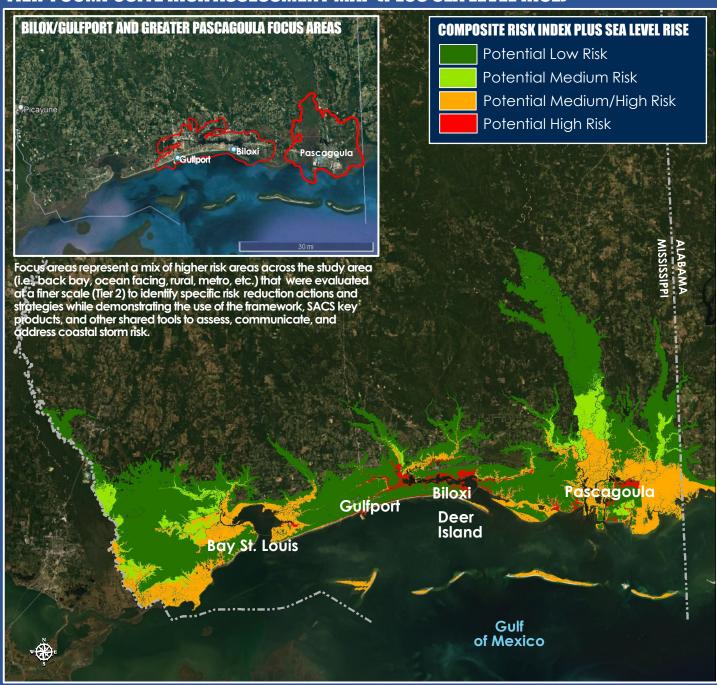


SOUTH ATLANTIC COASTAL STUDY (SACS) | MISSISSIPPI OVERVIEW

Companion Document to South Atlantic Coastal Study (SACS) | Overview

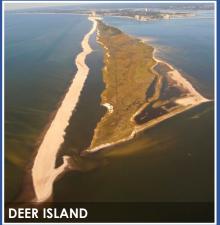
Mississippi has the fourth highest potential economic risk in the study area. All potential risk for Mississippi is located in Hancock, Harrison, and Jackson counties. More than 90 percent of the risk is concentrated in census places, the highest in the continental United States portion of the study area. Biloxi, Gulfport, Pascagoula, Bay St. Louis, and Moss Point are among the census places with the greatest economic risk to storm surge risk in Mississippi.

TIER 1 COMPOSITE RISK ASSESSMENT MAP (PLUS SEA LEVEL RISE)











MISSISSIPPI SACS SNAPSHOT

Hurricane Strikes (1851-2021)

Deep Draft Harbors Annual Dredge Volume: 13,045,000 Cubic Yards



Estimated Population Within High Socially

Vulnerable Communities

154,000 **Estimated Vulnerable Structures**

Footprint: 500 year Floodplain + 3 Feet Sea Level Rise

9 **Priority Environmental Areas (PEAs)**

10 Beach **Nourishment Projects** Federal and Non-Federal

High-Risk Locations



Increase in **Economic Damages from** the Existing to the Future Condition (with 3 feet Sea Level Rise)



OTHER:

- 64,651 Federal Flood Insurance Policies
- Jobs and Federal, State, and Local Revenues at Risk

- Sources (rows, left to right):
 1) NOAA HURDAT Database
 2) 2020 RSM Optimization Report
- NOAA Environmental Sensitivity Index (ESI) Guidelines
- 2016 CDC Social Vulnerability Index
- National Structure Inventory

- SACS Appendices SACS SAND Report
- SACS Tier 1 & Tier 2 Risk Assessments
- **SACS Tier 2 Economic Risk Assessment**

RECOMMENDATIONS

The Coastal Storm Risk Management Framework, SACS key products, and other shared tools were used to assess and communicate risk across the SACS Study Area, and ultimately to address the assessed risk with a series of recommendations. The entire process was implemented with input from stakeholders across federal, state, and local public and private sectors. Recommendations to manage coastal storm risk are grouped into six categories, as illustrated in the icon graphics below, and are further grouped by timeframe: near term (< 5 years), mid term (5 10 years), and long term (> 10 years), as well as by responsible party (multi agency, USACE, and Congress).





















Study Efforts





SOUTH ATLANTIC COASTAL STUDY (SACS) | ADVANCING MISSISSIPPI RECOMMENDATIONS

RECOMMENDATION CATEGORIES DEFINED



Activities and Areas Warranting Further Analysis: This category includes development of tools, data collection, and multi-agency efforts such as those undertaken by Silver Jackets teams, which bring together multiple state, federal, and sometimes tribal and local agencies to manage risk from flooding and other natural disasters.



Address Barriers Preventing Comprehensive Risk Management: This category advances opportunities to address the multiple barriers preventing comprehensive risk management identified in the SACS report. **Design and Construction Efforts:** Examples include recommendations that support design and construction of tentatively selected or recommended plans from USACE CSRM studies conducted



separately from SACS. Recommendations on Previously Authorized USACE Construction Projects: This category includes recommendations that maintain and/or adapt existing USACE CSRM projects to continue providing



Regional Sediment Management Practices: This category supports a systems approach for more efficient and effective use of sediments in coastal environments, ranging from agency collaboration on sand source identification to leveraging the beneficial use of dredged material with emerging natural, nature-based features (NNBF).



Study Efforts

Examples include USACE feasibility study recommendations, studies that may be led by other stakeholders, and studies that fall under existing USACE authorities, such as the Continuing Authorities Program (CAP) and Planning Assistance to States (PAS).

MISSISSIPPI RECOMMENDATIONS

The recommendations to the right include:



REGIONAL RECOMMENDATIONS APPLICABLE TO MISSISSIPPI

Regional Priority Recommendations may be applicable to the entire region, such as improving understanding and application of compound flooding effects, or they may be location-specific recommendations to address areas with the most significant risk relative to the entire study area.



MISSISSIPPI-SPECIFIC RECOMMENDATIONS

storm risk management as sea level rises.

Key state and regional recommendations center around continued collaborative planning among local, state, tribal, and federal entities, non-governmental organizations to address existing and future coastal storm risks. Regional and state findings reaffirmed the need and support of the recommendation in Mississippi Coastal Improvements Program that address long-term risk reduction and community/environmental resiliency within the three coastal counties of Mississippi. Several recommendations also focused on continued regional sediment management (RSM) and beneficial use of dredged material strategies to support economically sustainable and environmentally acceptable solutions to reduce coastal risk.



Image: Ingalls Shipvard at Port of Pascagoula (courtesy of Fly the Coast)

MICCICCIDDI DECOMMENDATIONO

Companion	Nocument t	to South Atlantic	Coactal 9	i (2982) vhut	Overvieu

<u>MISSISSIPPI RECOMMEN</u> CATEGORY	TIMING*	TYPE**	RECOMMENDATION	ASSIGNED TO	NEXT STEE
Activities/Areas Warranting		1112			Stakeholder
Further Analysis	Long-Term		Comprehensive Plan	Multi-agency	Collaboration
Design and Construction	Near-Term	RP, SP	High Hazard Area Risk Reduction Program.	Congress	Funding
	Long-Term		Proceed with developed Deep-Water Horizon Projects/Restoration.	Multi-agency	Funding
	Near-Term		Admiral Island Ecosystem Restoration.	Congress	Funding
	Near-Term	RP, SP	Bayou Combest Ecosystem Restoration.	Congress	Funding
	Near-Term		Submerged Aquatic Vegetation (SAV) Pilot Restoration – Environmental Restoration Areas.	Congress	Funding
	Near-Term		Franklin Creek Ecosystem Restoration.	USACE	Funding
	Mid-Term		Coastwide Beach and Dune.	Congress	Funding
	Mid-Term		Dantzler Coastal Preserve Ecosystem Restoration.	Congress	Funding
	Mid-Term		Turkey Creek Restoration.	Congress	Funding
Regional Sediment Management	Near-Term		Greenwood Island Habitat Restoration.	USACE	Funding
	Mid-Term		Opportunities to maximize beneficial placement should continue to be explored throughout Mississippi.	USACE	Funding
anagemeni	Mid-Term		Beneficial Use Determination for the vicinity of Round Island Habitat Restoration.	USACE	Funding
	Near-Term		Bayou Chico Environmental Restoration Areas.	Congress	Funding
	Near-Term		Biloxi Front Beach Ecosystem Restoration.	Congress	Funding
	Near-Term		Biloxi River-Eagle Point Ecosystem Restoration.	Congress	Funding
	Near-Term		Biloxi River-Shorecrest Ecosystem Restoration.	Congress	Funding
	Near-Term		Brickyard Bayou Ecosystem Restoration.	Congress	Funding
	Near-Term		Escatawpa River Diversion.	Congress	Funding
	Near-Term		Griffin Point Environmental Restoration Areas.	Congress	Funding
	Near-Term		Keegan Bayou CSRM and Ecosystem Restoration.	Congress	Funding
	Near-Term		Ocean Springs Ring Levee.	Congress	Funding
udy Efforts	Near-Term		Graveline Beach and Bayous Shoreline Study.	Congress	Funding
Study Efforts	Near-Term		Pine Island CSRM and Ecosystem Restoration.	Congress	Funding
	Near-Term		St. Martin CSRM and Ecosystem Restoration.	Congress	Funding
	Mid-Term		Project performance evaluation and improvement.	USACE	Funding
	Long-Term	RP	Graveline Beach and Bayou Shorelines.	Multi-agency	Funding
	Long-Term		Belle Fontaine Ring Levee.	Congress	Funding
	Long-Term		Pascagoula/Moss Point Ring Levee.	Congress	Funding
	Long-Term		Gautier Ring Levee.	Congress	Funding
	Long-Term		Gulf Park Estate Ring Levee.	Congress	Funding
	Long-Term	RP	Long-Term High-Hazard Area Risk Reduction Program.	Congress	Funding
	Long-Term		Mississippi Sand Hill Crane National Wildlife Refuge Habitat Restoration.	Congress	Funding

ADDITIONAL REGIONAL PRIORITY RECOMMENDATIONS APPLICABLE TO ALL STATES

CATEGORY	TIMING*	TYPE**	RECOMMENDATION	ASSIGNED TO	NEXT STEP
Activities/Areas Warranting Further Analysis	Mid-Term	RP	Advance ongoing interagency work to improve understanding and application of compound flooding effects on existing and future coastal storm risk.	Multi-Agency	Stakeholder collaboration
	Near-Term	RP	SACS key products should be maintained and updated by USACE and utilized, as applicable, by USACE and stakeholders to support consistent, efficient, and effective analyses. Additionally, other agency-led data and tools should be supported to facilitate use of consistent, up-to-date information for decision making, Examples of such agency-led efforts include the Bureau of Ocean Energy Management (BOEM) Minerals Management Information System (MMIS) and the National Oceanic and Atmospheric Administration (NOAA) Coastal Change Analysis Program.	Multi-Agency	Funding
	Near-Term	RP	A multi-agency and collaborative approach should be used to develop methods that account for environmental benefits in traditional habitat units and economic quantities (monetized) in order to acknowledge and consider environmental benefits as a factor in deciding on a recommended plan in all future CSRM studies.	Multi-Agency	Guidance/ Policy
	Near-Term	RP	Develop streamlined and vetted methods to quantify and incorporate risk management benefits to Regional Economic Development, Environmental Quality, and Other Social Effects to ensure Federal interest determinations consider benefits other than National Economic Development.	USACE	Guidance/ Policy
Address Barriers	Near-Term	RP	Develop streamlined and vetted methods to quantify and incorporate risk management benefits to Regional Economic Development, Environmental Quality, and Other Social Effects to ensure Federal interest determinations consider benefits other than National Economic Development.	USACE	Guidance/ Policy
Previously Authorized USACE Construction Projects	Near-Term	RP	Prioritize funding for renourishment of existing federal CSRM beach nourishment projects (except PR and USVI)	Congress	Funding
	Near-Term	RP	Prioritize extension of federal periods of participation in existing CSRM beach nourishment projects, as appropriate, to continue providing coastal storm risk management and important incidental benefits to coastal systems, communities, and environmental and cultural resources. Options could include prioritizing funding and review of studies on existing CSRM projects, streamlining the study process for existing projects, or providing extensions to the existing periods of federal participation through legislation such as was done by WRDA 2018 (P.L. 115-270) (except PR and USVI)	Congress	Funding
	Near-Term	RP	Ongoing and future federal and nonfederal studies recommending beach nourishment should explicitly incorporate adaptive capacity to improve project resilience.	Multi-Agency	Guidance/ Policy
Regional Sediment Management	Near-Term	RP	Promote partnerships and collaboration on beneficial use of dredged material opportunities.	Multi-Agency	Stakeholder collaboration
	Near-Term		Develop regional prioritization of strategies to address sand needs.	USACE	Funding

^{*} Near-Term: < 5 Years / Mid-term: 5 – 10 Years / Long-term: >10 Years / ** RP: Regional Priority / SP: State Priority