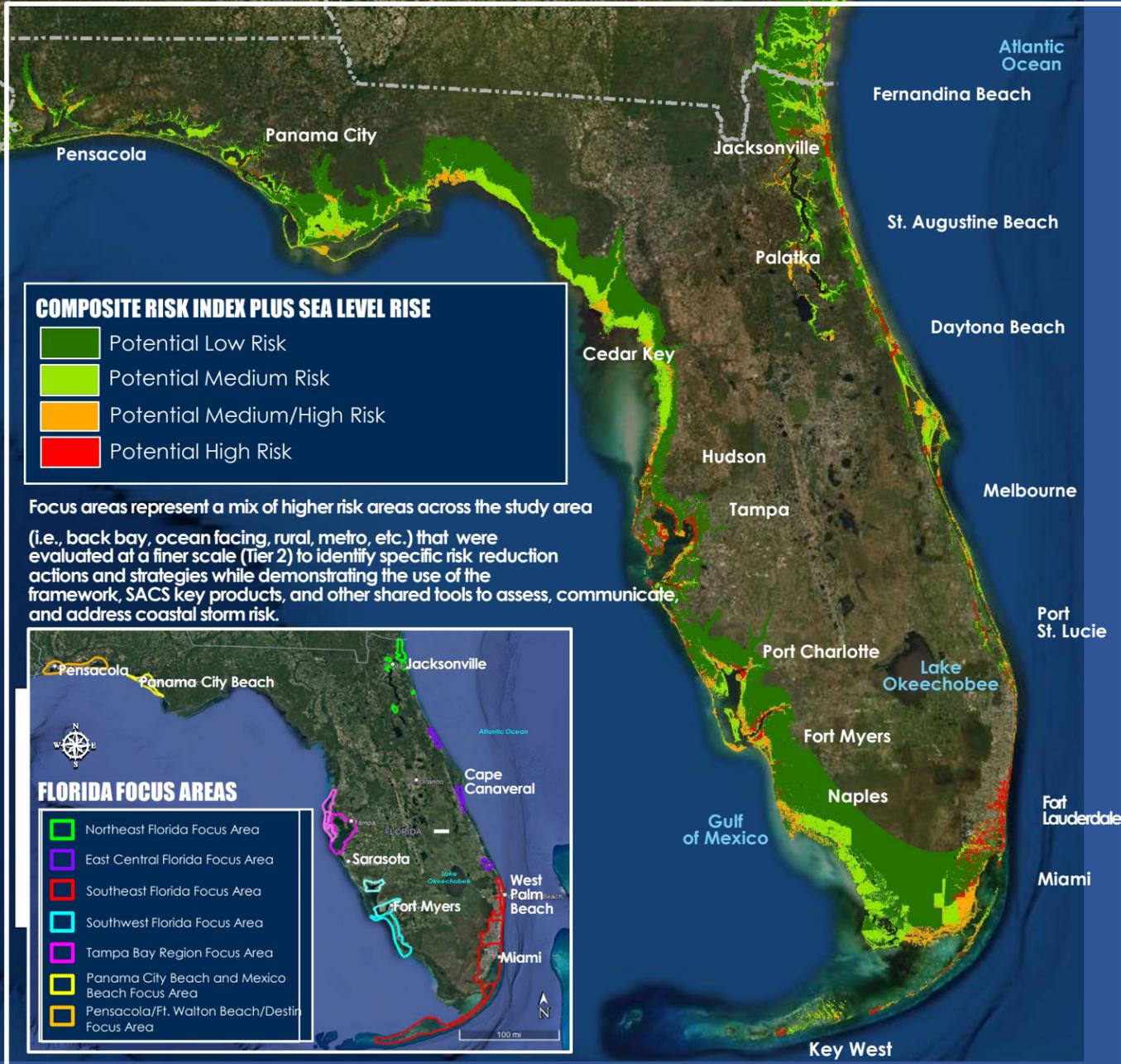


FLORIDA SUMMARY

Florida accounts for most of the coastal storm risk in the study area due to its large coastline, flat low-lying topography, and significant population and development located near the coast. Risk is primarily concentrated in Southeast Florida, Southwest Florida, the Tampa Bay Region, Northeast Florida, and North Central Florida. The risk assessment identified over 490 high risk places throughout Florida which accounts for nearly one-third of the places being assessed. Florida accounts for approximately 84%-87% of the economic risk for the entire study area with Miami-Dade, Broward, Lee, and Pinellas counties accounting for nearly two-thirds of the economic risk in the state of Florida.

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



FLORIDA SACS SNAPSHOT

<p>114 Hurricane Strikes (1851-2021)</p>	<p>16 Deep Draft Harbors</p> <p>Annual Dredge Volume: 8,775,000 Cubic Yards</p>	<p>More Than 29,000 Miles Of Tidally Influenced Coastline</p>										
<p>4,443,000 Estimated Population Within High Socially Vulnerable Communities</p>	<p>5,266,000 Estimated Vulnerable Structures <small>Footprint: 500 year Floodplain + 3 Feet Sea Level Rise</small></p>	<p>176 Priority Environmental Areas (PEAs)</p>										
<p>124 Beach Nourishment Projects Federal and Non-Federal</p>	<p>492 High-Risk Locations <small>Future Condition with 3 Feet Sea Level Rise</small></p>	<p>153% Increase in Economic Damages from the Existing to the Future Condition <small>(with 3 feet Sea Level Rise)</small></p>										
<p>OTHER:</p> <ul style="list-style-type: none"> 1,775,000 Federal Flood Insurance Policies Jobs and Federal, State, and Local Revenues at Risk 												
<p>Sources (rows, left to right):</p> <table border="0"> <tr> <td>1) NOAA HURDAT Database</td> <td>6) SACS Appendices</td> </tr> <tr> <td>2) 2020 RSM Optimization Report</td> <td>7) SACS SAND Report</td> </tr> <tr> <td>3) NOAA Environmental Sensitivity Index (ESI) Guidelines</td> <td>8) SACS Tier 1 & Tier 2 Risk Assessments</td> </tr> <tr> <td>4) 2016 CDC Social Vulnerability Index</td> <td>9) SACS Tier 2 Economic Risk Assessment</td> </tr> <tr> <td>5) National Structure Inventory</td> <td></td> </tr> </table>			1) NOAA HURDAT Database	6) SACS Appendices	2) 2020 RSM Optimization Report	7) SACS SAND Report	3) NOAA Environmental Sensitivity Index (ESI) Guidelines	8) SACS Tier 1 & Tier 2 Risk Assessments	4) 2016 CDC Social Vulnerability Index	9) SACS Tier 2 Economic Risk Assessment	5) National Structure Inventory	
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5) National Structure Inventory												

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).

<p>Activities and Areas Warranting Further Analysis</p>	<p>Address Barrier Preventing Comprehensive Risk Management</p>	<p>Design and Construction Efforts</p>	<p>Recommendations on Previously Authorized USACE Construction Projects</p>	<p>Regional Sediment Management Practices</p>	<p>Study Efforts</p>
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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 CSRMs studies conducted separately from SACS.

Recommendations on Previously Authorized USACE Construction Projects: This category includes recommendations that maintain and/or adapt existing USACE CSRMs projects to continue providing storm risk management as sea level rises.

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).

FLORIDA RECOMMENDATIONS

The recommendations to the right include:

- REGIONAL RECOMMENDATIONS APPLICABLE TO FLORIDA**
Regional Priority Recommendations may be applicable to the entire region, such as improving understanding and application of compound flooding effects and methods for incorporating all four accounts into project recommended plans, or they may be location-specific recommendations to address areas in Florida with the most significant risk relative to the entire study area.
- FLORIDA-SPECIFIC RECOMMENDATIONS**
Florida Priority Recommendations emphasize construction of ongoing CSRMs Feasibility Study recommended plans and continuation of existing CSRMs projects with recommendations for improvement to include incorporation of resiliency features such as dunes, quantification of environmental benefits, and regional sediment management opportunities. Florida Priority recommendations also include identification of back bay areas expected to see a significant increase in coastal storm risk as a result of sea level rise that warrant follow-on feasibility studies.



26 CONSTRUCTED BEACH SEGMENTS currently help to address coastal storm risk in Florida

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

CATEGORY	TIMING*	TYPE**	RECOMMENDATION	ASSIGNED TO	NEXT STEP
Activities/Areas Warranting Further Analysis	Near-Term		Develop/conduct the FL Coastal Resilience Workshop (Silver Jackets effort), focused on select SACS key products and other federal agency and state tools to evaluate/address coastal storm risk to facilitate compliance with Florida laws and statutes.	USACE	Stakeholder Collaboration
	Near-Term		Advance understanding and implementation of natural and nature-based features (NNBF) to reduce coastal storm risk and provide co-benefits.	USACE	Stakeholder Collaboration
	Mid-Term	SP	Address coastal storm risk with considerations for ecosystem restoration.	USACE	Stakeholder Collaboration
Design and Construction	Mid-Term	SP	St. Johns County, Florida Coastal Storm Risk Management Study (Ponte Vedra Beach) Feasibility Study Recommended Plan (pending).	Congress	Construction Authority
	Near-Term	RP, SP	Construction of Recommended Plan from Okaloosa County study.	Congress	Construction Authority
	Near-Term	RP, SP	Miami-Dade Back Bay Coastal Storm Risk Management (CSRMs) Feasibility Study Recommended Plan (pending).	Congress	Construction Authority
	Near-Term	RP, SP	Florida Keys CSRMs Feasibility Study Recommended Plan.	Congress	Construction Authority
	Near-Term	RP, SP	Miami-Dade (beaches) CSRMs Feasibility Study Recommended Plan (pending).	Congress	Construction Authority
	Near-Term	RP, SP	Collier County CSRMs Feasibility Study Recommended Plan (pending).	Congress	Construction Authority
	Near-Term	RP, SP	Pinellas County CSRMs Feasibility Study Recommended Plan.	Congress	Construction Authority
Previously Authorized USACE Construction Projects	Near-Term		Revisit scopes and purposes of previously authorized CSRMs projects to include resilience features.	Congress	Stakeholder Collaboration
	Near-Term		The addition of resilience features identified in completed EDRs begun under the Bipartisan Budget Act of 2018 (Public Law 115-123) should be considered prior to, or as part of, a project's next periodic nourishment.	USACE	Funding
	Near-Term		Complete EDR efforts to evaluate the potential of existing federal beach nourishment projects to include flexible use of renourishment material to improve adaptive capacity and resilience as sea level rises.	USACE	Stakeholder Collaboration
	Mid-Term	SP	Extend the period of federal participation in the existing Duval County, Florida Shore Protection Project.	USACE	Construction Authority
	Mid-Term		Accelerate planning and implementation of the Comprehensive Everglades Restoration Plan (CERP; WRDA 2000).	Congress	Stakeholder Collaboration
Regional Sediment Management (RSM)	Mid-Term	SP	Extend the period of federal participation in the existing Broward County, Florida CSRMs (Segment II and Segment III).	Congress	Construction Authority
	Near-Term		Further investigation of offshore sand sources.	USACE	Funding
	Mid-Term	RP	Coordination/implementation of effective beneficial use of nearshore placement for multiple locations (Regional Sediment Management - Regional Center of Expertise).	USACE	Stakeholder Collaboration
	Near-Term		Develop RSM Guide for Northeast Florida and East Central Florida.	USACE	Stakeholder Collaboration
	Near-Term		Complete a USACE Planning Assistance to States (PAS) effort for the Panama City/Mexico Beach vicinity.	Multi-agency	Funding
	Mid-Term	SP	Rehabilitate the navigation channel jetties at Panama City Harbor and evaluate the inlet system.	USACE	Funding
	Near-Term	RP, SP	Complete a USACE Planning Assistance to States effort in the vicinity of Pensacola Pass, Florida.	Multi-agency	Funding
	Mid-Term		RSM practices such as thin layer placement to benefit salt marsh should be explored to increase coastal storm resilience in north Florida regions.	USACE	Stakeholder Collaboration
	Mid-Term		RSM practices such as thin layer placement to benefit mangroves should be explored to increase coastal storm resilience in south Florida regions.	USACE	Stakeholder Collaboration
	Mid-Term	RP	Effective utilization of inlet system for beach or nearshore placement.	USACE	Funding
	Long-Term	RP	Investigation of RSM practices to improve resilience to mangrove habitat should be explored to increase resilience to south Florida regions.	Multi-agency	Stakeholder Collaboration
	Near-Term		Fund/conduct Cape Canaveral Wastewater Treatment Plant Continuing Authorities Program (CAP) Section 14.	USACE	Funding
	Study Efforts	Mid-Term	RP	Brevard County, Florida Back Bay Feasibility Study (CSRMs).	Congress
Long-Term		RP, SP	Volusia County, Florida Back Bay Feasibility Study (CSRMs).	Congress	Modify Study Authority
Long-Term			Martin County, Florida Back Bay Feasibility Study (CSRMs).	Congress	Identify Nonfederal Sponsor (USACE Study)
Near-Term			Volusia County, Florida Feasibility Study (CSRMs).	Congress	Funding
Long-Term			St. Lucie County, Florida Back Bay Feasibility Study (CSRMs).	Congress	Identify Nonfederal Sponsor (USACE Study)
Near-Term		SP	St. Augustine, Florida Back Bay Feasibility Study (CSRMs).	Congress	Funding
Near-Term			Palatka Emergency Streambank Restoration.	USACE	Stakeholder Collaboration
Mid-Term		RP	Duval County, Florida Back Bay Feasibility Study (CSRMs).	Congress	Identify Nonfederal Sponsor (USACE Study)
Long-Term			Nassau County, Florida Back Bay CSRMs.	Congress	Identify Nonfederal Sponsor (USACE Study)
Near-Term			Deer Point Dam, Florida Feasibility Study (CSRMs).	Congress	New Study Authority
Mid-Term		RP	Pensacola, Fort Walton Beach, and Destin CSRMs.	Congress	Identify Nonfederal Sponsor (USACE Study)
Mid-Term		RP	Assess critical infrastructure in the Pensacola, Fort Walton Beach, and Destin Focus Area	Multi-agency	Identify Nonfederal Sponsor (USACE Study)
Mid-Term		RP	New Continuing Authorities Program or General Investigation Flood Risk Management study for the City of Milton, Florida to address coastal/inland/tidal inundation.	Congress	Identify Nonfederal Sponsor (USACE Study)
Mid-Term		RP, SP	A Planning Assistance to States (PAS) effort including hydrologic and hydraulic modeling, potential economic and environmental support, and a comprehensive monitoring evaluation.	Multi-agency	Funding
Near-Term		RP, SP	A comprehensive review study of the Central and Southern Florida (C&SF) Project is needed to enhance the resilience of all salinity structures and inland components of the system while integrating resilient measures to manage coastal risk in areas seaward of the existing system.	USACE	Funding
Mid-Term			General Reevaluation Report Palm Beach County, Florida Shore Protection Project Juno Beach Segment.	USACE	Funding
Mid-Term		RP	Follow-on study for additional high-risk locations not able to be addressed in the USACE Miami-Dade County, Florida Back Bay CSRMs Feasibility Study.	Congress	Funding
Mid-Term		RP, SP	Broward County, Florida Back Bay System CSRMs.	Congress	New Study Authority
Near-Term			Key Biscayne Feasibility Study (CSRMs).	Congress	Funding
Near-Term		RP, SP	Charlotte County, Florida Feasibility Study (CSRMs).	Congress	New Study Authority
Mid-Term		RP	Sarasota County Longboat Key Shore Protection Project General Re-evaluation Report.	USACE	Funding
Long-Term		RP, SP	Lee County, Florida Back Bay Feasibility Study (CSRMs)	Congress	New Study Authority
Long-Term		RP	Follow-on study for additional high-risk locations not able to be addressed in the USACE Collier County, Florida CSRMs Feasibility Study.	Congress	Funding
Mid-Term		RP	Hillsborough County, Florida Feasibility Study (CSRMs).	Congress	New Study Authority
Long-Term		RP	Pasco County, Florida Feasibility Study (CSRMs).	Congress	New Study Authority
Mid-Term		RP	Pinellas County, Florida Back Bay CSRMs Feasibility Study.	Congress	Funding
Long-Term			Manatee County, Florida Back Bay Feasibility Study (CSRMs).	Congress	New Study Authority
Near-Term	SP	St. Lucie County, Florida Shore Protection Project.	Congress	Construction Authority	

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 (MMS) 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 CSRMs studies.	Multi-Agency	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 CSRMs beach nourishment projects (except Puerto Rico and USVI).	Congress	Funding
	Near-Term	RP	Prioritize extension of federal periods of participation in existing CSRMs 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 CSRMs 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 Puerto Rico and USVI).	Congress	Funding
Regional Sediment Management	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
	Near-Term	RP	Promote partnerships and collaboration on beneficial use of dredged material opportunities.	Multi-Agency	Stakeholder Collaboration
	Near-Term	RP	Develop regional prioritization of strategies to address sand needs.	USACE	Funding