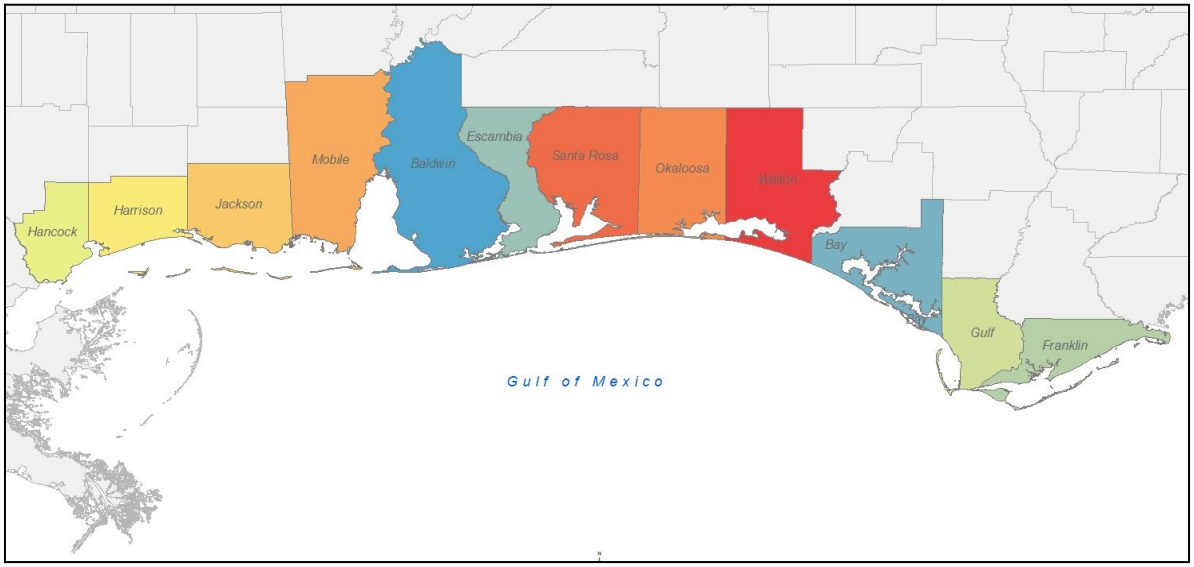
U.S. Army Corps of Engineers
Regional Sediment Management (RSM) Update

BOEM Gulf of Mexico Offshore Sand Management Working Group

Gulf of Mexico Sand Inventory Initiatives and Cooperative Agreements



December 8, 2022

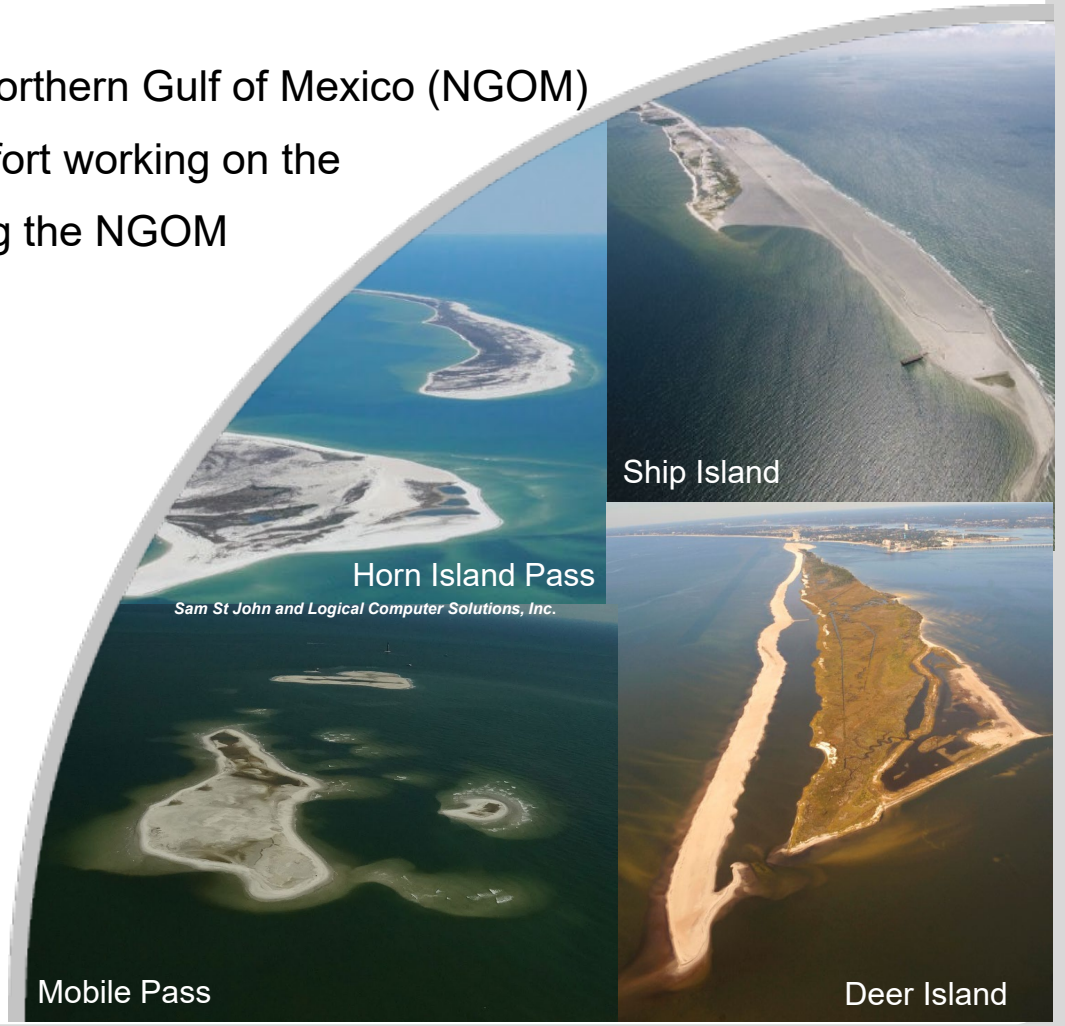
Elizabeth S. Godsey, P.E.
Coastal and RSM Engineering Technical Lead
EWN® Implementation Practice Lead
US Army Corps of Engineers, Engineering Division, Mobile District

US Army Corps of Engineers

U.S. Army Corps of Engineers
Regional Sediment Management (RSM) Update

Overview

- RSM Program Overview
- Highlight RSM Initiatives along the Northern Gulf of Mexico (NGOM)
- Update on the RSM Collaborative Effort working on the Synthesis of Sediment Budgets along the NGOM



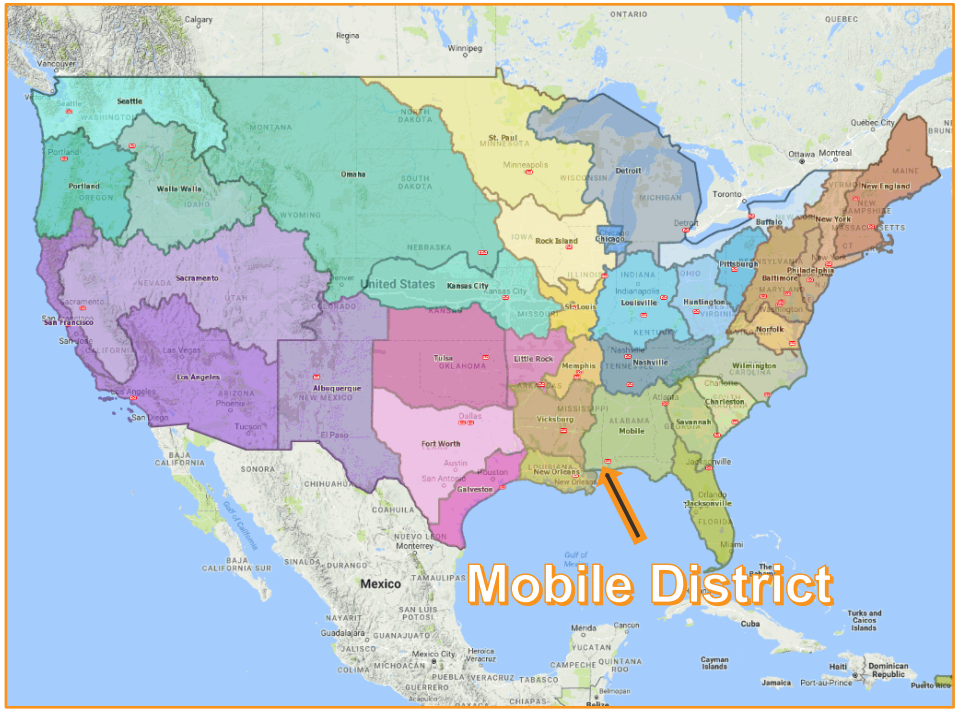
U.S. Army Corps of Engineers
Regional Sediment Management (RSM) Program

RSM is a systems approach using best management practices for more efficient and effective use of sediments in coastal, estuarine, and inland environments = Healthy Systems.

National RSM Program
Dave Perkey, Program Manager
Tate McAlpin, Deputy Program Manager

Regional RSM Center of Expertise
Laurel Reichold, Program Manager
Matt Shrader, Planning Deputy

Mobile District Leads
Don Mroczko, Planning Lead
Herb Bullock, Operation Lead
Elizabeth Godsey, Engineering Lead



Regional Sediment Management Website

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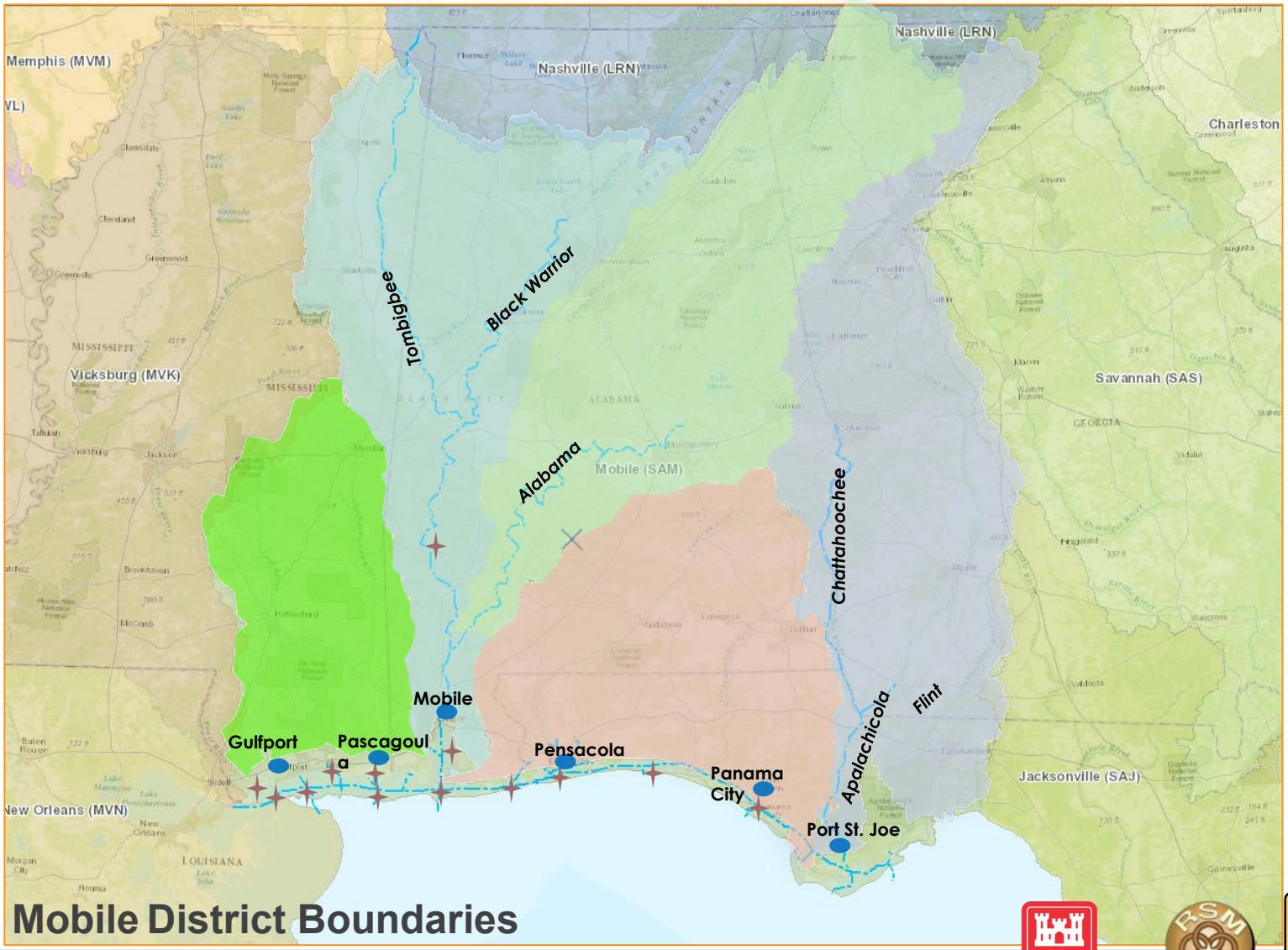
Mobile District Regional Sediment Management (RSM) Initiatives



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RSM

U.S. ARMY

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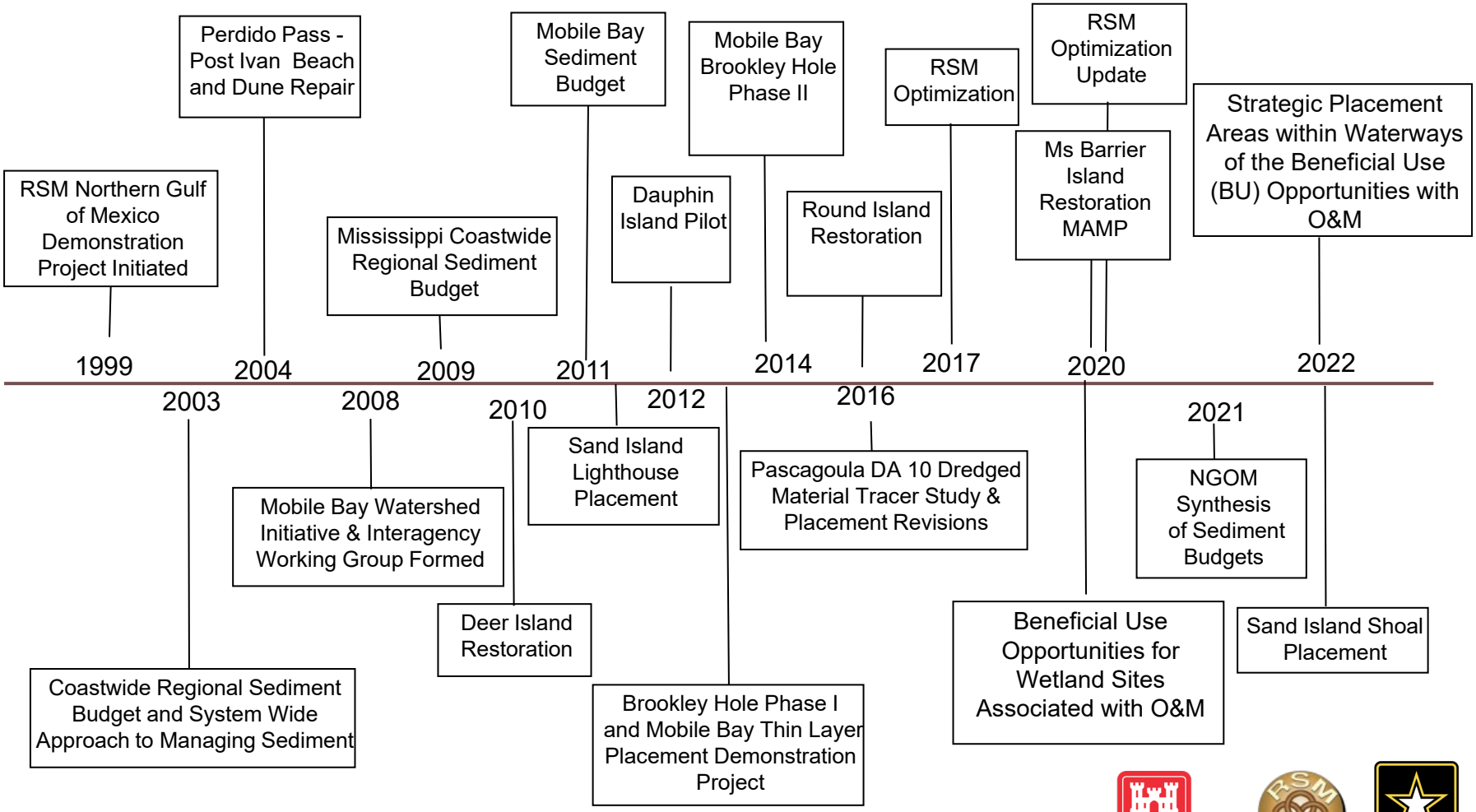
Mobile District Regional Sediment Management (RSM) Initiatives



Timeline of U.S. Mobile District RSM Initiatives

US Army Corps of Engineers

Synthesis of Sediment Budget Assessments along the Northern Gulf of Mexico

Core Project Team

Elizabeth Godsey, USACE, Mobile District
Rose Dopsovic, USACE, Mobile District
Charlene Sylvester, Engineering Research and Development (ERDC)
Sean McGill, ERDC
Mark Byrnes, Applied Coastal
Soupy Dalyander, The Water Institute of the Gulf
Rob Hollis, The Water Institute of the Gulf

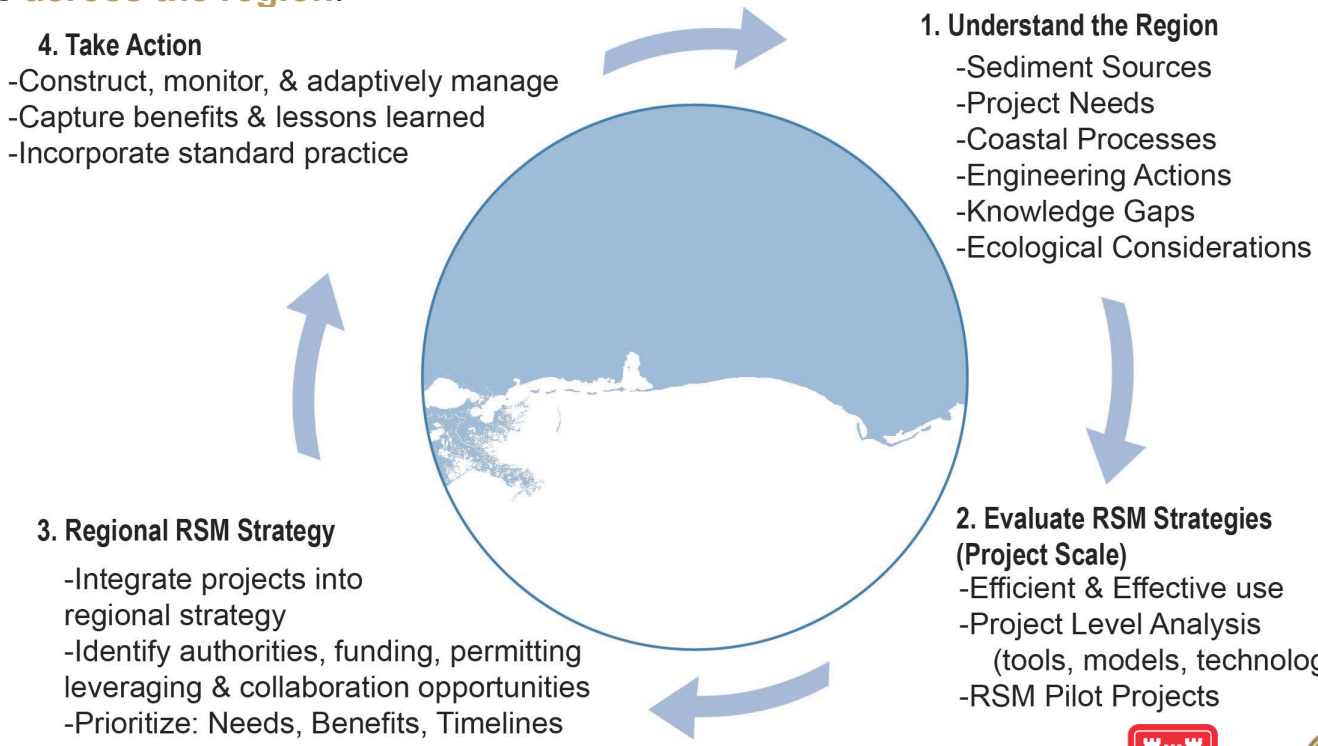
Stakeholders/Partners

Florida Department of Environmental Protection (FDEP)
Alabama Geological Survey (GSA)
Mississippi Department of Marine Resources (MDMR)
National Park Service (NPS)
United States Geological Survey (USGS)
The Water Institute of the Gulf (TWI)
Gulf Mexico Alliance (GOMA)
Consulting Groups

And more…

Synthesis of Sediment Budget Assessments along the Northern Gulf of Mexico

BLUF: Multiple funding streams have provided a means by which numerous sediment transport/budget analysis have been conducted across much of the northern Gulf of Mexico. This provides a **unique** opportunity to **work with** a set of **diverse stakeholders** to **synthesize** a large body of knowledge **across the region**.



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Synthesis of Sediment Budget Assessments along the Northern Gulf of Mexico

Over **21.7 million cubic yards of sediment** has been moved along the Northern Gulf of Mexico within the Mobile District through RSM implementation to include those of the 2000 Regional Sediment Management Northern Gulf of Mexico Demonstration Project that looked at the Northern Gulf of Mexico as a system.

Past efforts conducted as part of the 2000 Regional Sediment Management Northern Gulf of Mexico Demonstration Project has led to regional sediment management **benefits of over $2 million a year** as documented in the 2020 South Atlantic Division Regional Sediment Management Optimization Update. These benefits are primarily the economic value demonstrated in the integration of Navigation (NAV) and Coastal Storm Risk Management (CSRM)

Relationship building, knowledge and tool sharing, better system understanding, and collaboration leads to long term RSM benefits.

Regional Sediment Management: Background and Overview of Initial Implementation Report

USACE - South Atlantic Coastal Study Website

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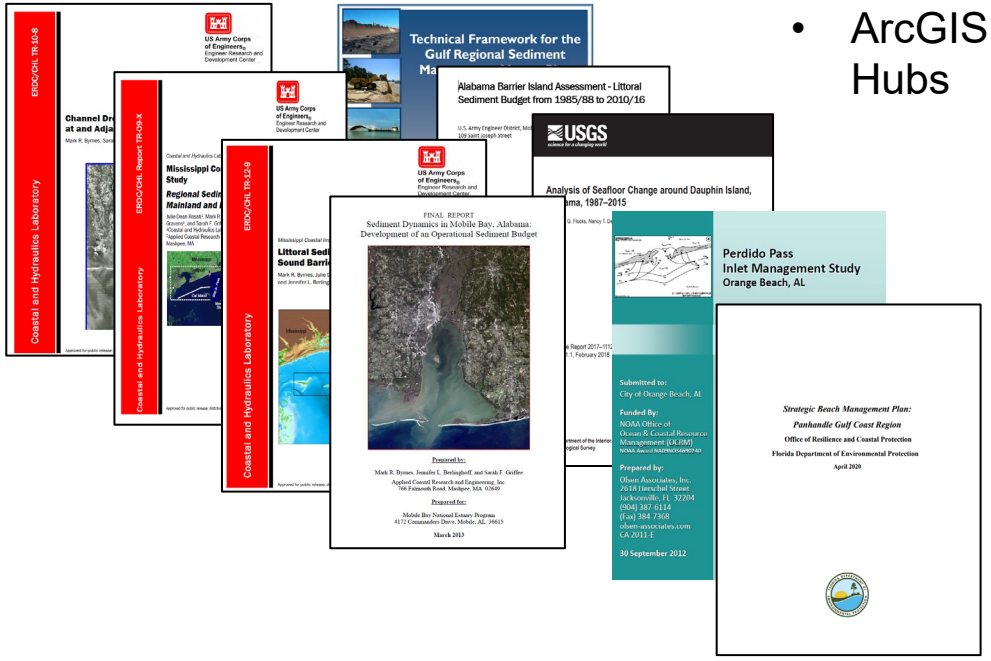
Synthesis of Sediment Budget Assessments along the Northern Gulf of Mexico

Challenge/Objectives

- Highlight existing tools and technologies
- Synthesize available sediment budgets
- Identify existing methods and gaps (spatial areas with limited and/or outdated coverage)
- Identify opportunities across multiple management entities

Approach

- Highlight existing tools and technologies to include:
  - Compile and format data input into a single repository and database that can be spatially referenced
  - ArcGIS Pro Sediment Budget Analysis System
  - ArcGIS Online Dashboards and Hubs



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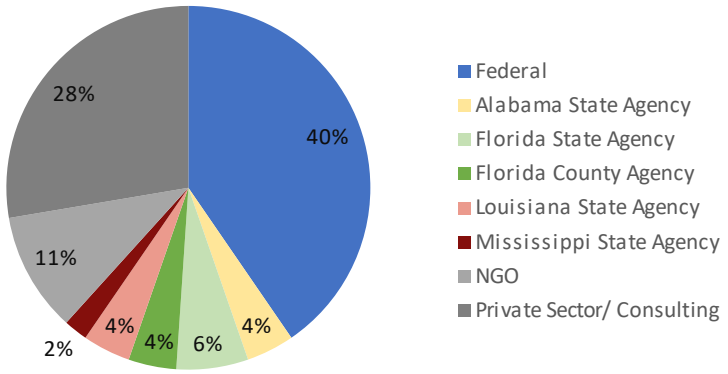
Synthesis of Sediment Budget Assessments along the Northern Gulf of Mexico

Workshop #1 (6/21/2022)

- Introduction of USACE Initiative
- Overview of draft NGOM Sediment Budget Synthesis Tool
- Discussion: synergies with other efforts, priori needs, etc.

Workshop 1 Participants

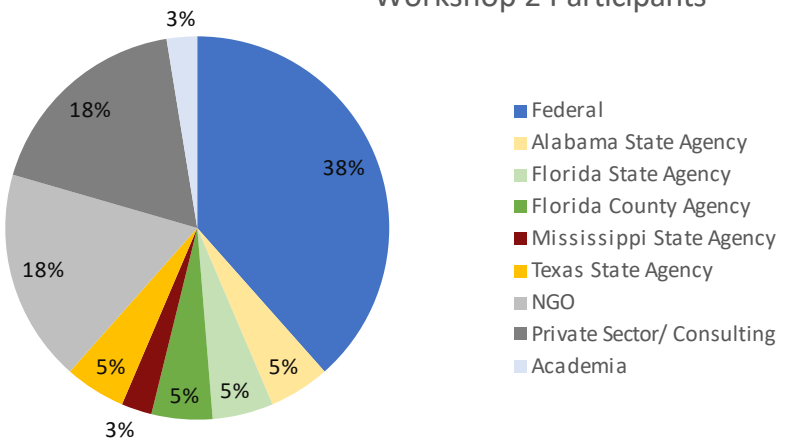


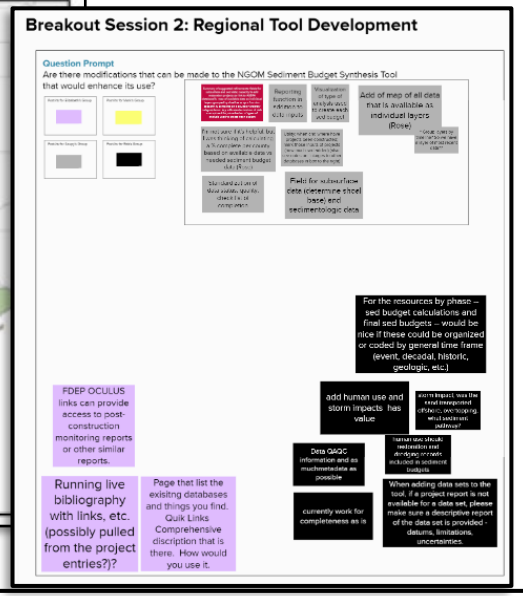
Synthesis of Sediment Budget Assessments along the Northern Gulf of Mexico

Workshop #2 (8/25/2022)

- Updates to NGOM Sediment Budget Synthesis Tool
- Working sessions:
  - Available data & analysis, priority
  - Regional tool development

Workshop 2 Participants



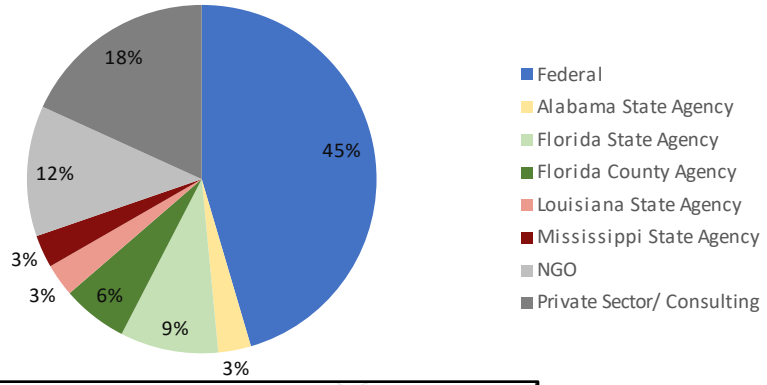


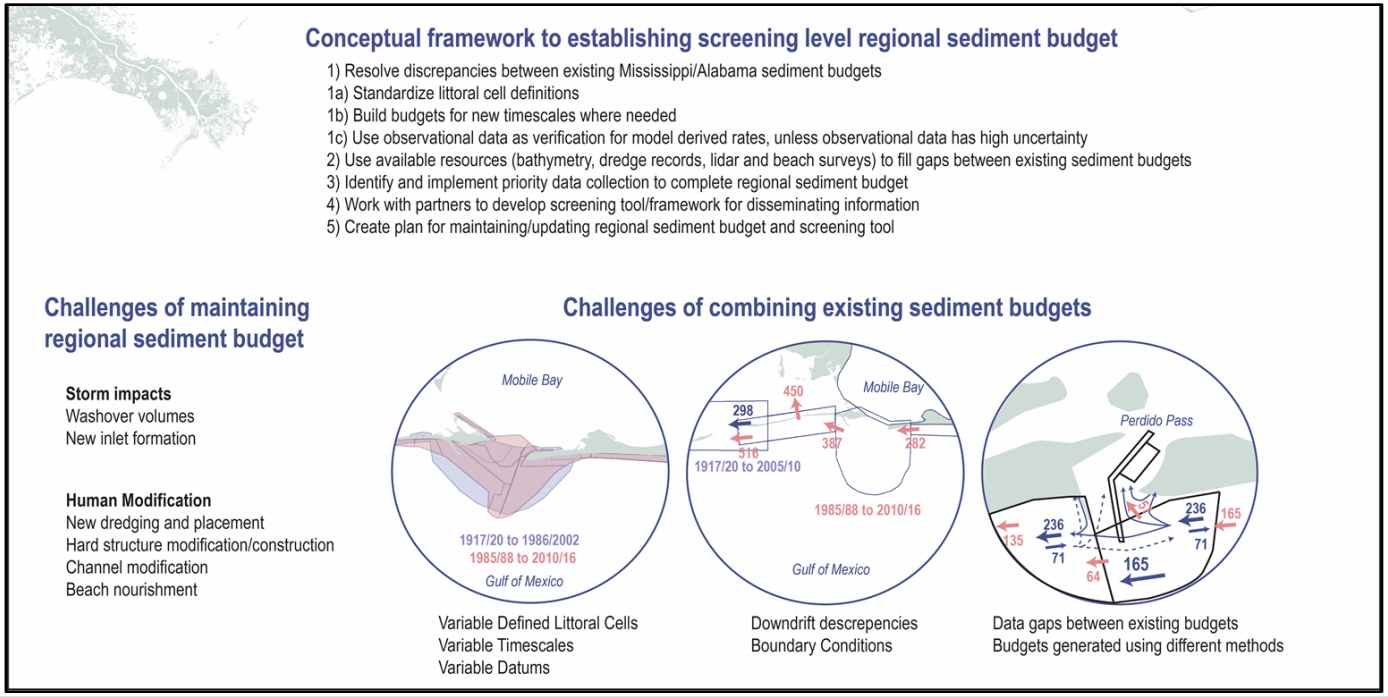
Synthesis of Sediment Budget Assessments along the Northern Gulf of Mexico

Workshop #3 (11/9/22)

- Stakeholder Priorities
- Options for continued, coordinated action
- Identification of pathways to next steps (coordination, funding, etc.)

Workshop 3 Participants

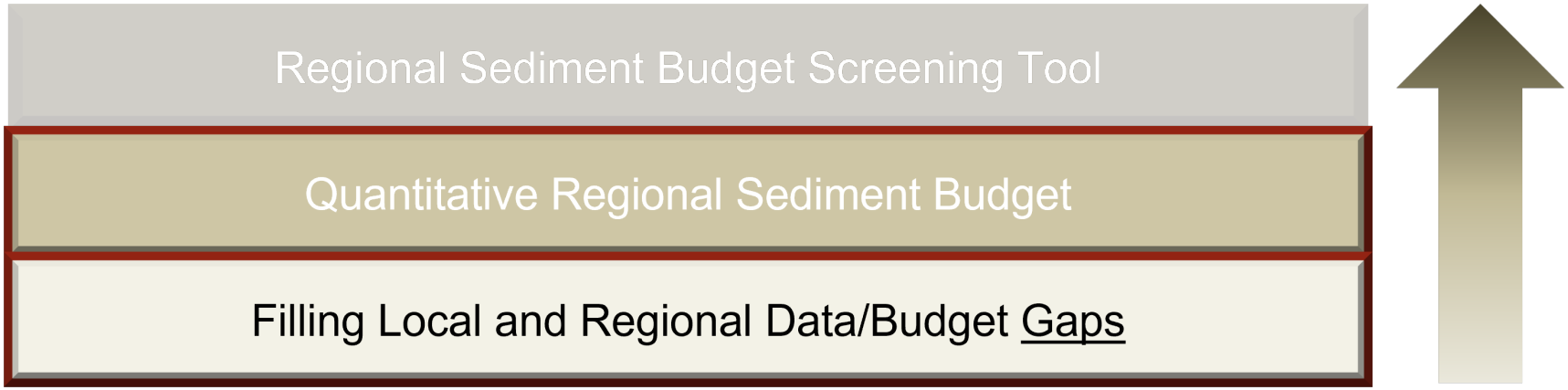




Synthesis of Sediment Budget Assessments along the Northern Gulf of Mexico

Regional Sediment Budget Development: Input on Priorities

- **Regional Sediment Budget Screening Tool:** online tool that identifies hotspots, areas of priority data collection, etc. for use in efforts that might not have sediment budget information
- **Quantitative Regional Sediment Budget:** development of a robust regional sediment budget that integrates data and information across state, project boundaries
- **Filling Local and Regional Data/Budget Gaps:** focused data collection and sediment budget development in areas where information is missing or outdated



Synthesis of Sediment Budget Assessments along the Northern Gulf of Mexico

Accomplishments

NGOM Sediment Budget Synthesis Tool online and available for your use. “Living” tool for identifying available sediment budgets and data

Next Steps

Report summarizing workshops and suggested action items will be completed and released early 2022

Northern Gulf of Mexico: Sediment Budget Assessments