



OPTIMIZING BUDGETS & PROJECT DELIVERY WITH REGIONAL SEDIMENT MANAGEMENT

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Jacksonville District

SOUTH ATLANTIC DIVISION
TRUSTED PARTNERS DELIVERING
VALUE TODAY
FOR A BETTER TOMORROW



Regional Sediment Management

A systems approach to deliberately manage sediments in a manner that maximizes natural and economic efficiencies to contribute to sustainable water resource projects, environments, and communities.

- **GOAL: MAINTAIN NAVIGATION CHANNELS AND MAXIMIZE COASTAL RESILIENCY BY KEEPING SEDIMENT IN SYSTEM.**

SEDIMENT AS A LIABILITY

Tampa “Spoil” Island

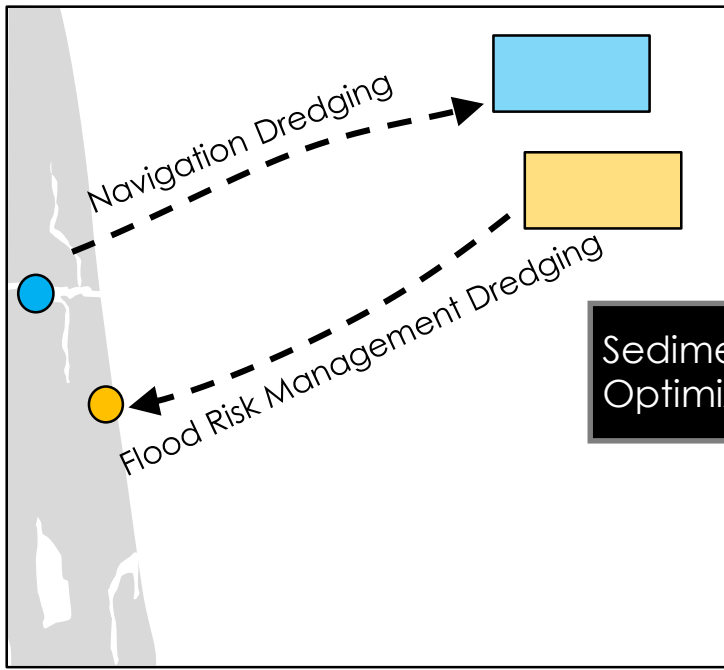


SEDIMENT AS A RESOURCE

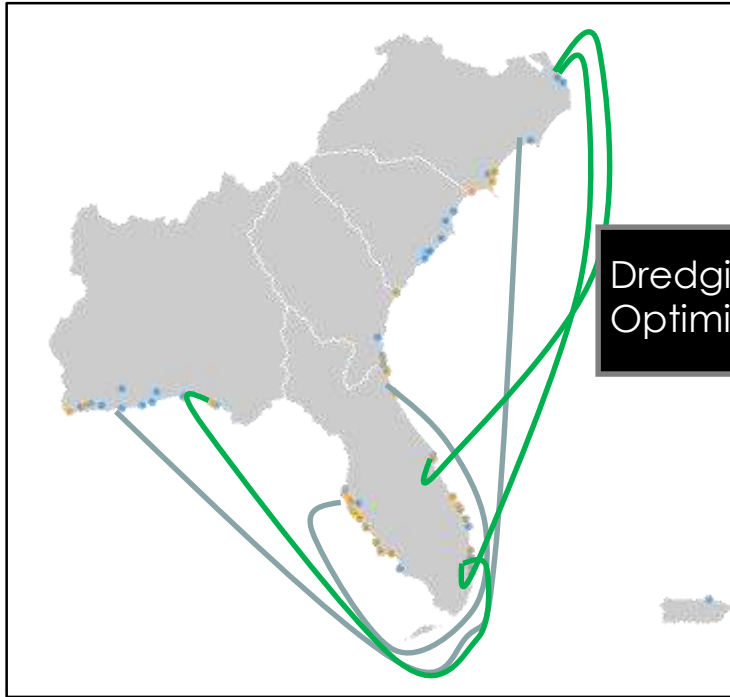
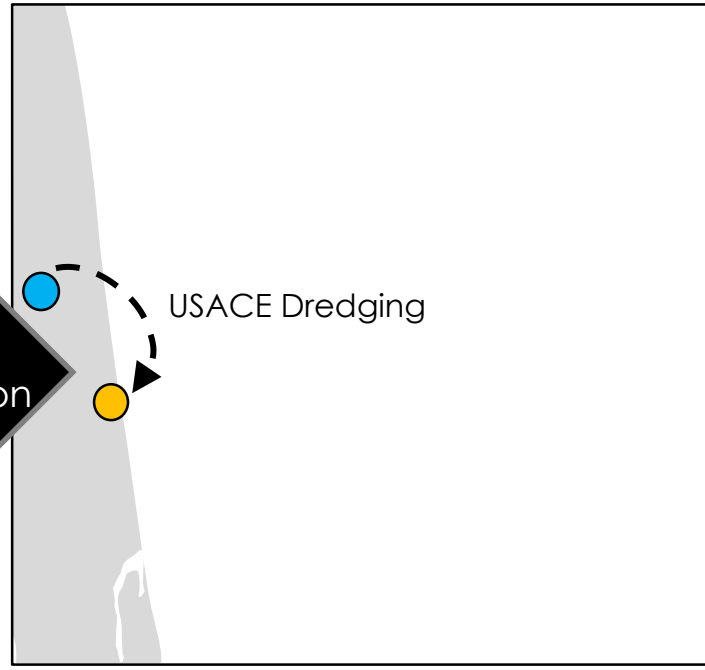
Egmont Key Beach



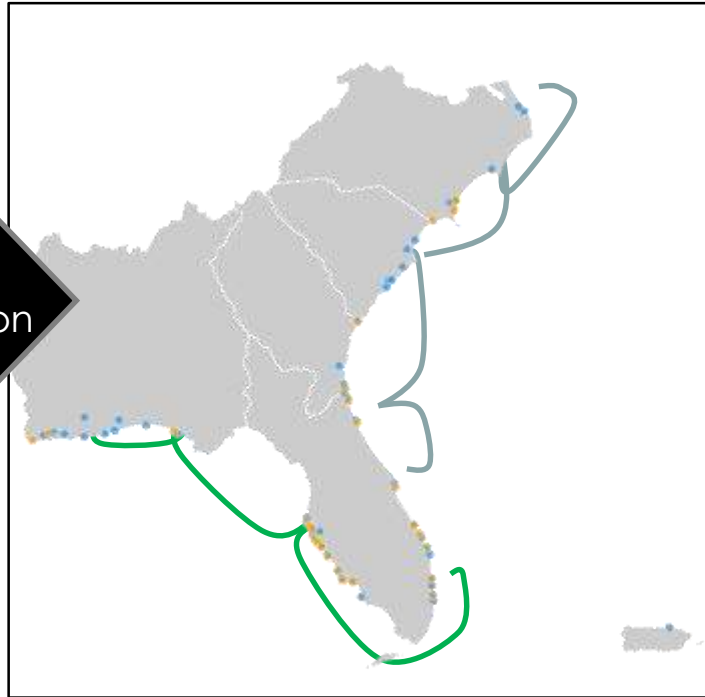
RSM-RCX established by South Atlantic Division in 2015
Operating as a National resource in coordination with ERDC
SCIENCE + IMPLEMENTATION



Sediment Optimization



Dredging Optimization



EFFICIENCY

INNOVATION TO IMPLEMENTATION



Schedule Optimization

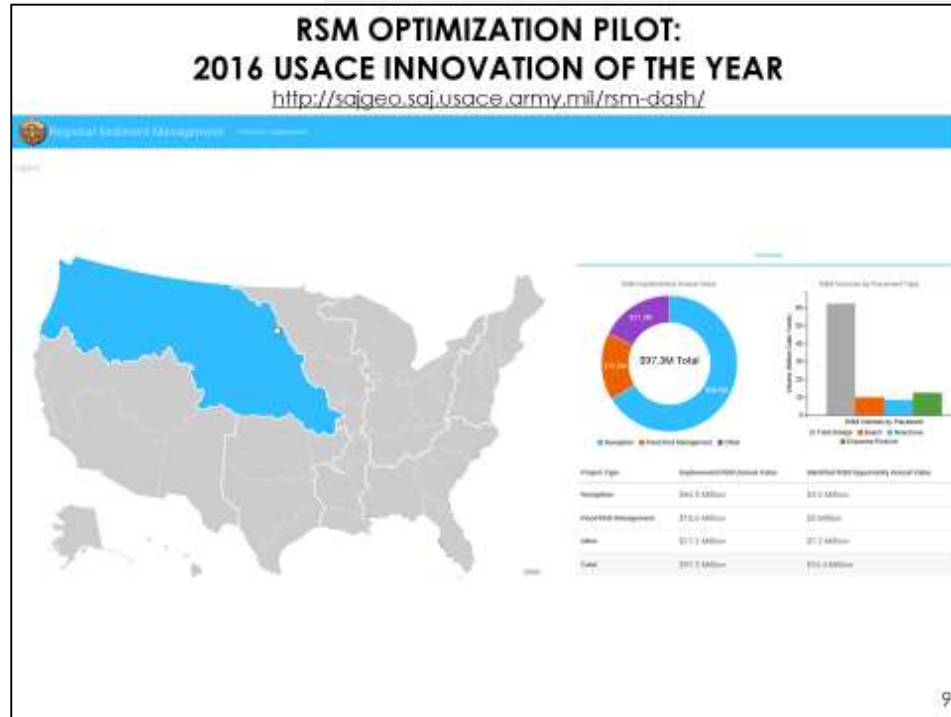
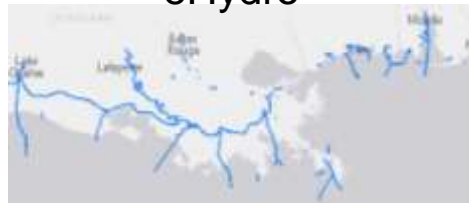


Authorities

NAV
FRM
ECO

Data Integration Framework

eHydro



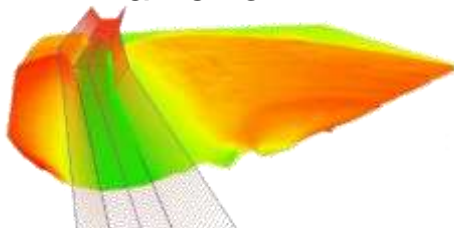
Funding

NAV C, O&M
FRM C
ECO C
NON-FED

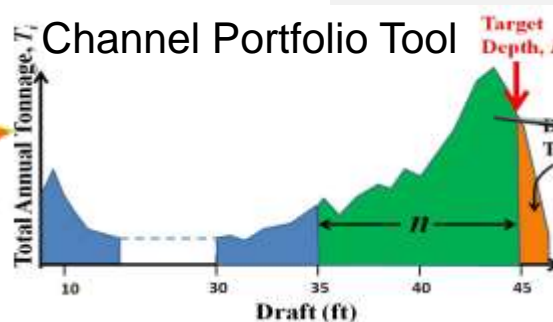
Channel Shoaling and Analysis Tool (CSAT)



National Channel Framework



Channel Portfolio Tool



Execution

COSTS
SCHEDULE
PERMITS
QUANTITIES
SEDIMENT TYPE
ENV. WINDOWS
INTERVALS
DESIGN

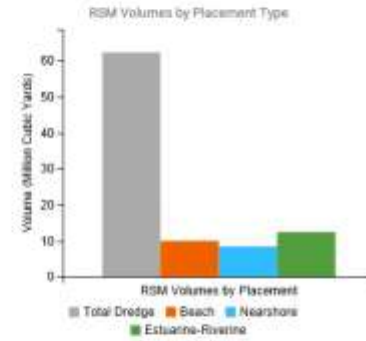
RSM Decision Support Tool: 2016 USACE INNOVATION OF THE YEAR

<http://sajgeo.saj.usace.army.mil/rsm-dash/>

USACE

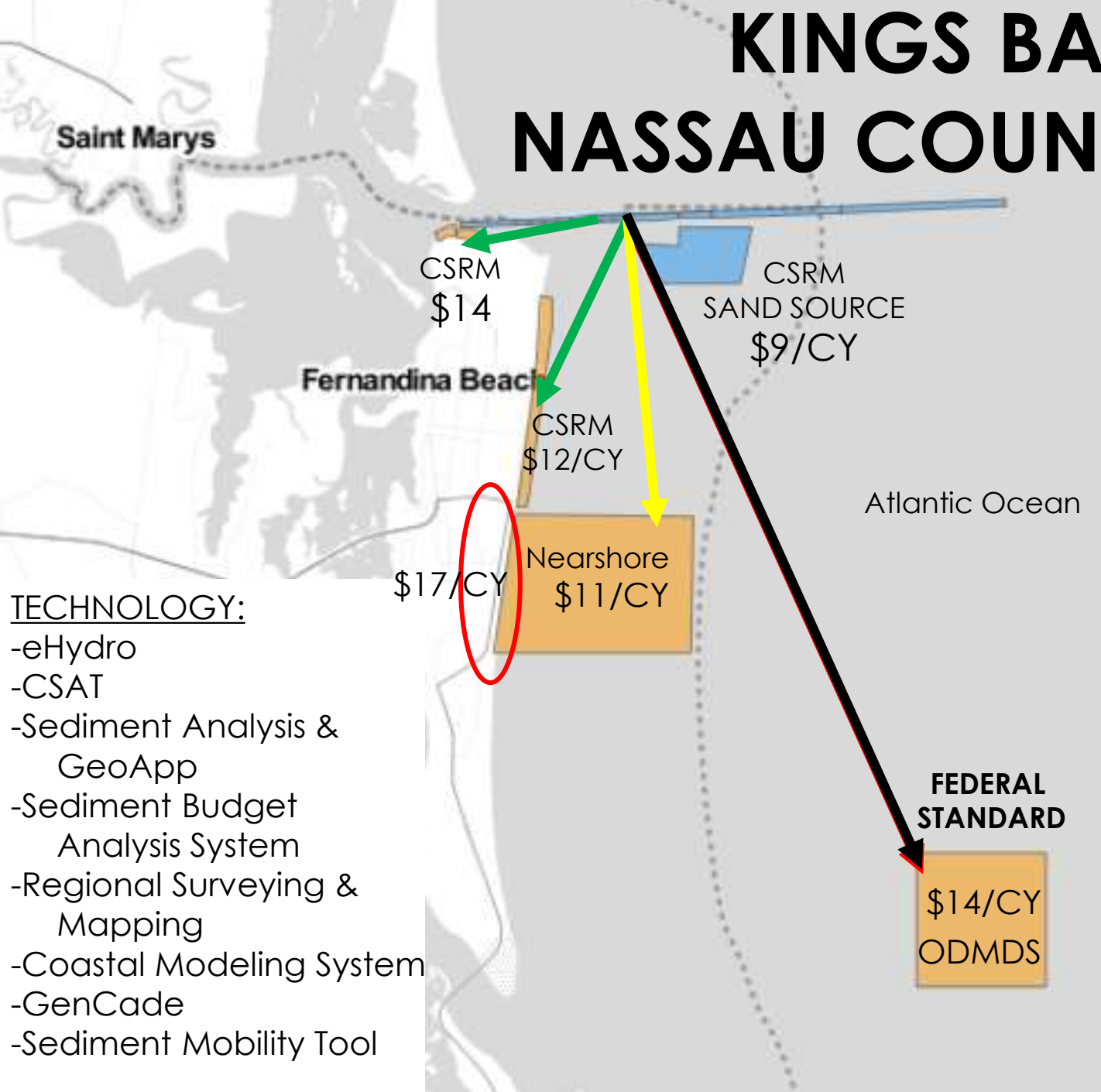


Summary



Project Type	Implemented RSM Annual Value	Identified RSM Opportunity Annual Value
Navigation	\$64.5 Million	\$4.2 Million
Flood Risk Management	\$15.6 Million	\$5 Million
Other	\$17.2 Million	\$7.2 Million
Total	\$97.3 Million	\$16.4 Million

KINGS BAY NAV & NASSAU COUNTY CSR



NASSAU CO
AUTHORIZED
AVERAGE ANNUAL
\$2,700,000

WITH RSM
(AS CONSTRUCTED)
AVERAGE ANNUAL
\$333,333
3 authorities
4 colors of money

RSM
SAVINGS
\$2,400,000
(AVERAGE ANNUAL)

TECHNOLOGY:

- eHydro
- CSAT
- Sediment Analysis & GeoApp
- Sediment Budget Analysis System
- Regional Surveying & Mapping
- Coastal Modeling System
- GenCade
- Sediment Mobility Tool

**BASELINE
ANNUAL
PROGRAM
\$250M**

...



**OPTIMIZED
ANNUAL
PROGRAM
\$250M**



**Potential for:
\$140M in value
71% MORE
PROJECT
EXECUTION**





RSM Around the Nation



BUILDING STRONG

- SAD Optimization follow up, rolling out to other Divisions
- District/Project specific assistance by request
- RSM University – Thin Layer Placement National meetings, RSM Authorities publication, Reservoir Sediment Management Workshop
- FY17 RSM District Proposals – Integrating RSM approaches to existing and new projects
- Enhancing Tools and Technologies for RSM Implementation (Coastal and Inland)
- WIIN RSM Implementation guidance and Pilot

THERE ARE INFINITE WAYS TO IMPLEMENT RSM



Elwha Dam



Lower Columbia River



Sangamon-Illinois Rivers



Utulei Beach
American Samoa



Mobile Harbor



Jacksonville Harbor

We must continue pushing!



WIIN & RSM



BUILDING STRONG

- S. 1122 – Beneficial Use of Dredged Material Pilot Program. Regional Beneficial Use Teams. Cost Sharing under Section 204 of WRDA 92. May not require NFS to pay above Federal Standard
- S. 1188 – Sense of Congress – State WQC and disposal of dredged material, open-water disposal should be reduced to maximum extent practicable.
- S. 1189 – Disposal of Dredged Material not the Federal Standard if it violates the State WQ standards approved by EPA.
- S. 1204 – South Atlantic Coastal Study. Geographical boundaries of SAD, identifying risks and vulnerabilities of HSDR due to Sea Level Rise with focus on Regional Sediment Management. Due NLT 4 years after date of enactment.



WIIN 1122



BUILDING STRONG

- 90 days to initiate.
- Consult with State and local agencies
- 10 Pilot projects
- Selection based on:
 - ▶ Environmental, economic, and social benefits
 - ▶ Diversity of location and project type



WIIN 1122: Considerations



BUILDING STRONG

- (d) CONSIDERATIONS.—The Secretary shall carry out the pilot program in a manner that—
 - (1) maximizes the beneficial placement of dredged material from Federal and non-Federal navigation channels;
 - (2) incorporates, to the maximum extent practicable, 2 or more Federal navigation, flood control, storm damage reduction, or environmental restoration projects;
 - (3) coordinates the mobilization of dredges and related equipment, including through the use of such efficiencies in contracting and environmental permitting as can be implemented under existing laws and regulations;
 - (4) fosters Federal, State, and local collaboration;
 - (5) implements best practices to maximize the beneficial use of dredged sand and other sediments; and
 - (6) ensures that the use of dredged material is consistent with all applicable environmental laws.



SECTION 1122: COST SHARING



BUILDING STRONG

- (1) IN GENERAL.—Projects carried out under this section shall be subject to the cost-sharing requirements applicable to projects carried out under section 204 of the Water Resources Development Act of 1992 ([33 U.S.C. 2326](#)).
- (2) ADDITIONAL COSTS.—Notwithstanding paragraph (1), if the cost of transporting and depositing dredged material for a project carried out under this section exceeds the cost of carrying out those activities pursuant to any other water resources project in accordance, if applicable, with the Federal standard (as defined in section 335.7 of title 33, Code of Federal Regulations), **the Secretary may not require the non-Federal interest to bear the additional cost of such activities.**

THERE ARE INFINITE WAYS TO IMPLEMENT RSM



Elwha Dam



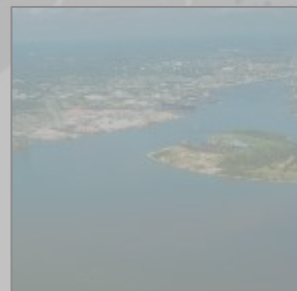
Lower Columbia River



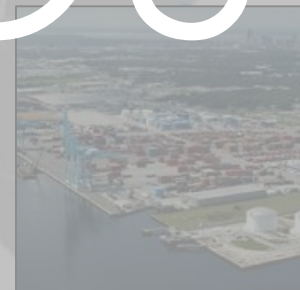
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THANK YOU