

Regional Sediment Management

Evolution of the SAD Regional Center of Expertise

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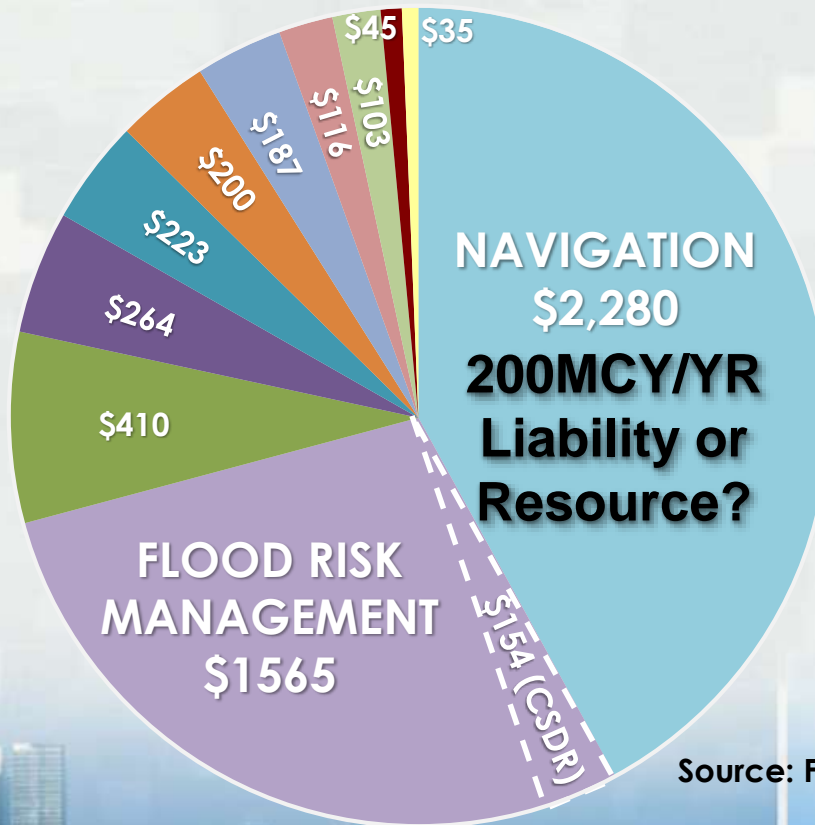
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BUILDING STRONG®

U.S. ARMY CORPS OF ENGINEERS | Jacksonville District

RSM-RCX established by South Atlantic Division in 2015

Operating as a resource to move RSM from innovation to IMPLEMENTATION

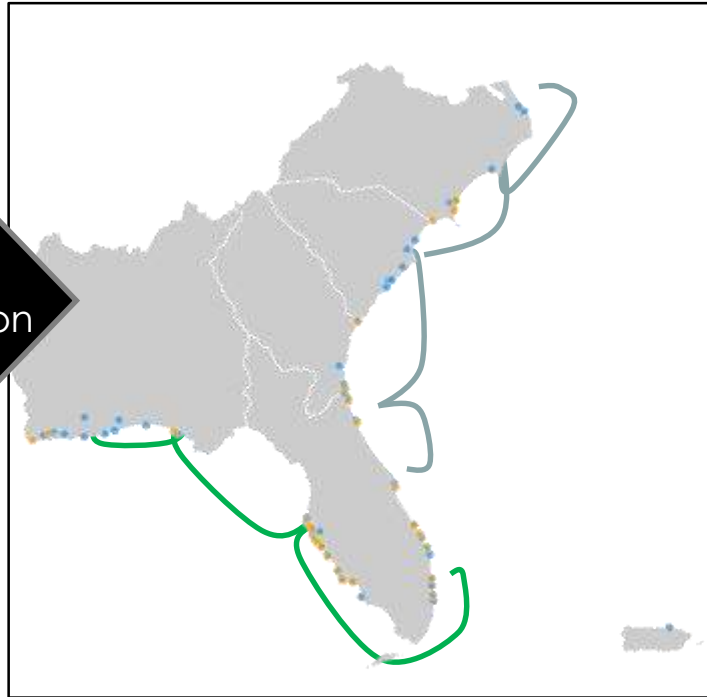
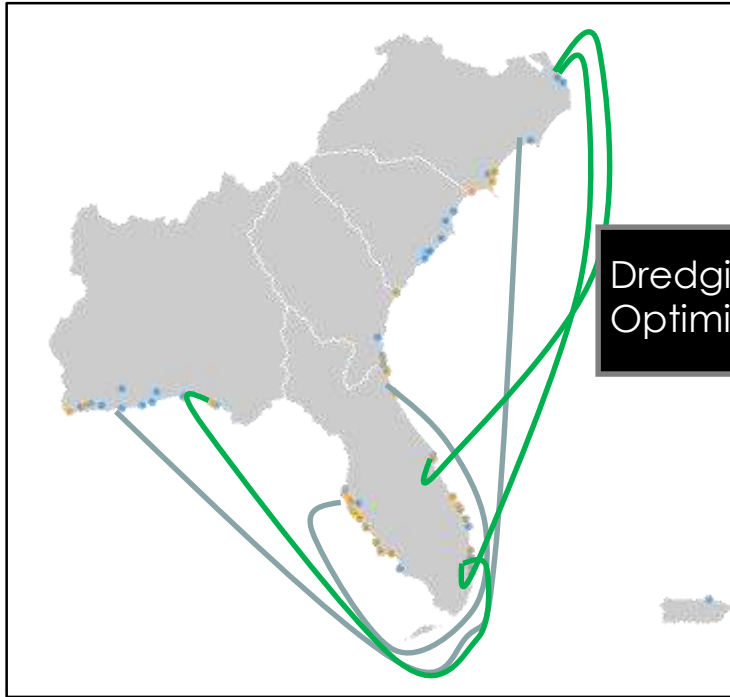
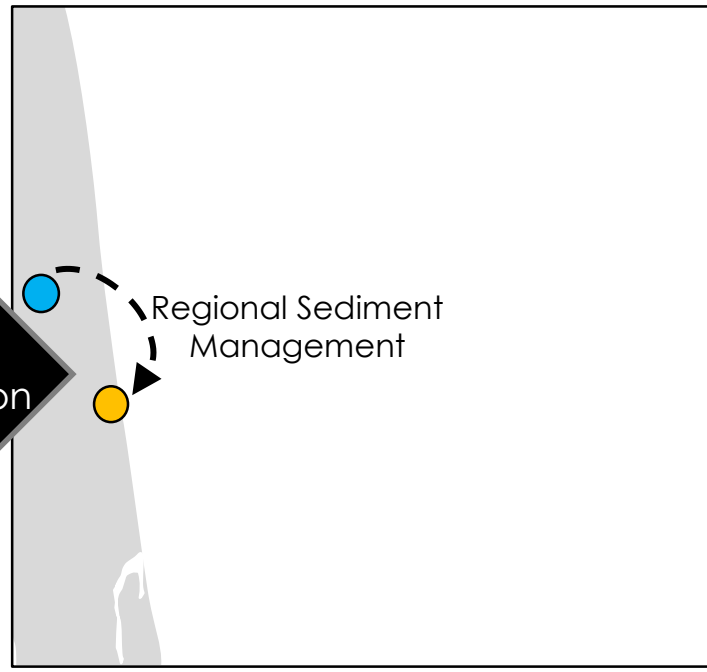
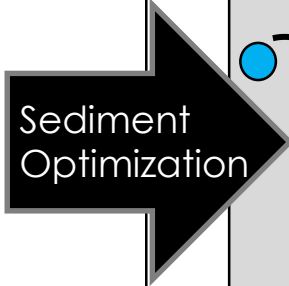
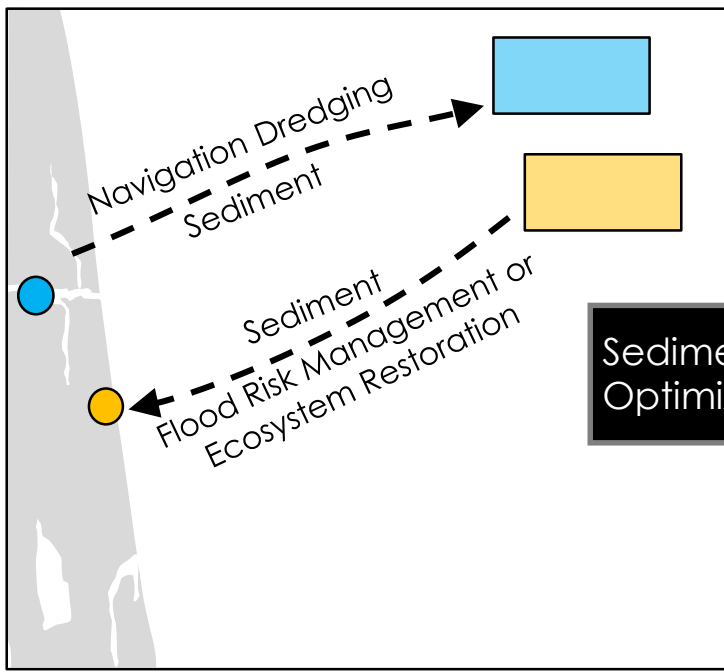


-  NAVIGATION
-  FLOOD RISK MANAGEMENT
-  ENVIRONMENT (ECOSYSTEM RESTORATION)
-  RECREATION
-  HYDROPOWER
-  REGULATORY
-  EXECUTIVE DIRECTION & MANAGEMENT
-  ENVIRONMENT - STEWARDSHIP
-  ENVIRONMENT - FUSRAP
-  WATER STORAGE FOR WATER SUPPLY
-  EMERGENCY MANAGEMENT

Source: FY14 Corps of Engineers Annual Civil Works Fiscal Report



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EFFICIENCY

Top 4 Challenges to RSM Implementation

1. Financial

- No incentive!, budget penalty vs. priority, no understanding or recognition of value, risk to execution (2101), coordination funds, non-Federal funding coordination

2. Authority/Policy

-Lack of understanding, unclear & inconsistent guidance. Cross business lines, Fed Standard, CAP, 7a1, other creative potential, risk/fear, 3X3X3

3. Environmental

-Risk, time, funding, coordination

-Understand issues and state of the science, what questions need to be answered

4. Operational

-Innovative techniques are required, risk, perceived expense.

-Understand issues and state of technology. Industry wants to help.



RSM, NAVIGATION & THE FEDERAL STANDARD

THE FEDERAL STANDARD 33 CFR 335

“the dredged material disposal alternative or alternatives identified by the Corps which represent the least costly alternatives consistent with sound engineering practices and meeting the environmental standards established by the 404(b)(1) evaluation process or ocean dumping criteria”

The Federal standard has sometimes been used as an excuse for inaction!

Life cycle costs, cross business line benefits/costs and non Federal funding need to be considered/pursued.



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RETURN ON INVESTMENT

Example- 2013 STORM RESPONSE, JACKSONVILLE DISTRICT

FEDERAL NAVIGATION
CHANNELS DREDGED



SEDIMENT

FEDERAL
COASTAL STORM RISK
MANAGEMENT PROJECTS
NOURISHED



CONTRACTS

DREDGING
OPTIMIZED



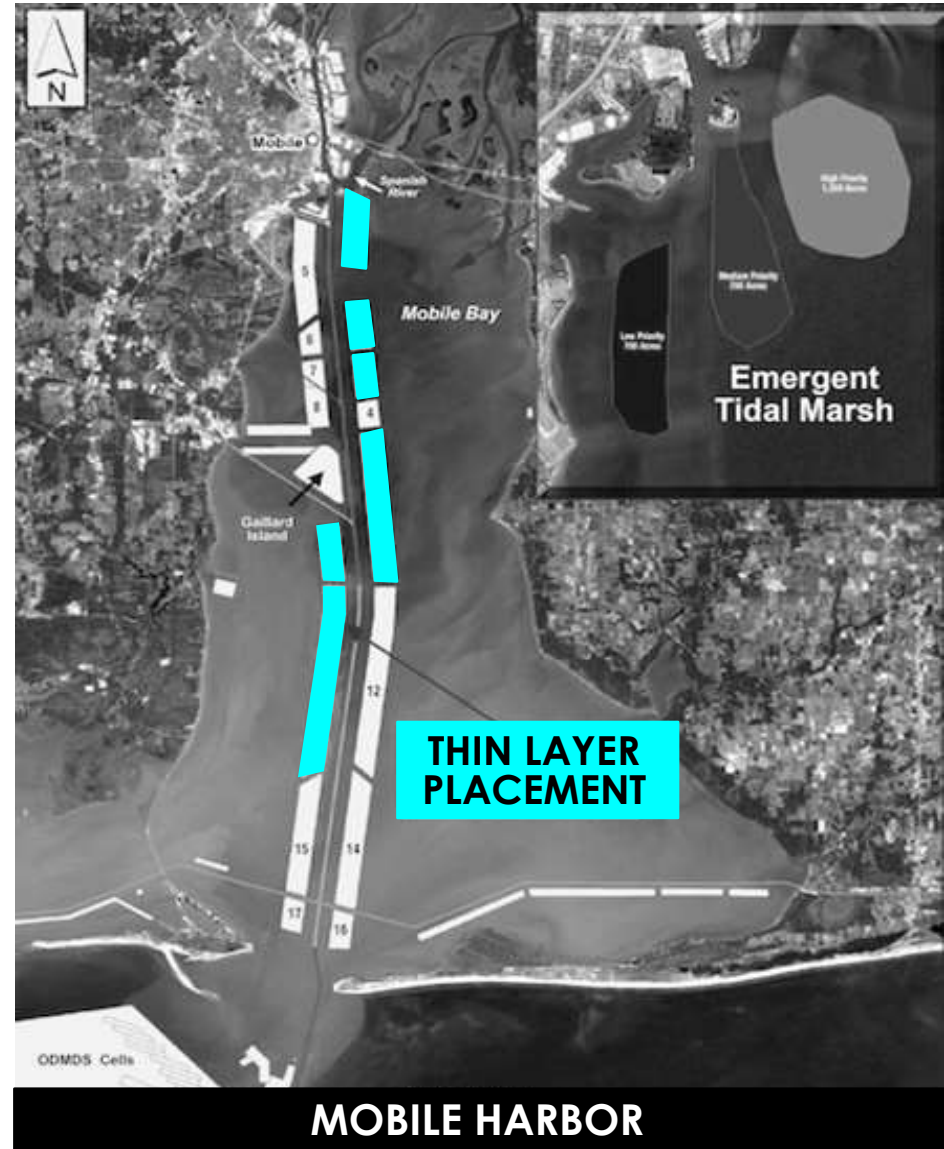
COST: \$23M
VALUE: \$23M

COST: \$0
VALUE: \$27M

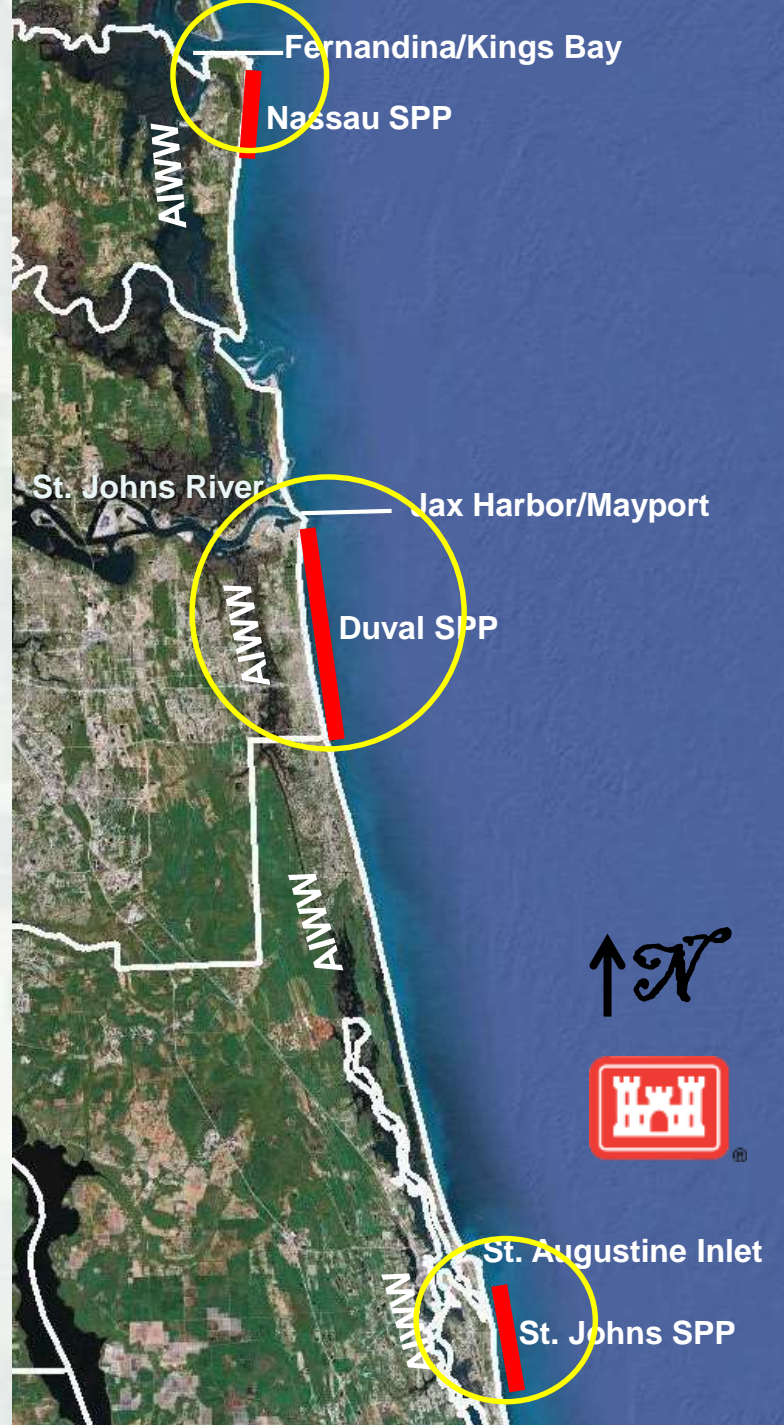
COST: \$0
VALUE: \$20M

\$70M VALUE AT \$23M FEDERAL COST

RETURN ON INVESTMENT EXPANDING THE ENVIRONMENTAL BOX



SAD NAV savings \$16M, Programmatic savings PRICELESS



Quantifying the Benefits, N. FL

Kings Bay/Fernandina ----- Nassau Co SPP
11 years

\$45M NAV/MIL to Beach

Jax Harbor/Mayport ----- Duval Co SPP
30 years

\$31M O&M to Beach
\$4M Beach to Nav

St Augustine Inlet/IWW ----- St Johns SPP
14 years

\$13M SPP to NAV
\$4M O&M to Beach

Total: **\$97M** in no cost
project execution



RSM OPTIMIZATION PILOT:

2016 USACE INNOVATION OF THE YEAR

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



Regional Sediment Management

PROJECT DASHBOARD

Understand opportunities. What does maximum efficiency look like?



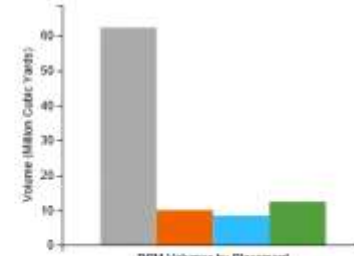
Summary

RSM Implemented Annual Value



Navigation Flood Risk Management Other

RSM Volumes by Placement Type



Total Dredge Beach Nearshore Estuarine/Riverine

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

**BASELINE
ANNUAL
PROGRAM
\$250M**

...

**OPTIMIZED
ANNUAL
PROGRAM
\$250M**

Potential for:
\$97M in value
**71% MORE
PROJECT
EXECUTION**





SAD Optimization Part II



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Optimization identified \$100M in annual value and >\$20M opportunities

- Next step is to go after unrealized potential
- SAD Pilots established to take optimization to the next level
 - ▶ Brevard Co SPP/Canaveral O&M - \$1M/year (estimated)
 - ▶ Jekyll AIWW - \$100,000 - \$1M
 - ▶ Folly River/Beach – >\$500,000 identified
 - ▶ Kings Bay Fernandina - \$2,500,000 annually (Navy)
 - ▶ Brunswick Harbor – TBD (>\$1M annually)
 - ▶ Regional Contract – potential of \$5M
- SAD Focus Areas -
 - ▶ TLP and In water placement
 - ▶ Nearshore feeder berms
 - ▶ Turbidity/Fate of fines
 - ▶ Mitigation Credit
 - ▶ Ecosystem Value
 - ▶ Industry Collaboration
 - ▶ Communication



Advancing policy and regulations to save Millions annually



SAD RCX Portfolio



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- What else are we doing inside of SAD?
 - ▶ SCA/SACCS
 - ▶ Lead Section 1122 for SAD
 - ▶ Review District Planning Studies for RSM Opportunities
 - ▶ Review of Supplemental Projects for RSM Optimization

- What we are doing outside of SAD?
 - ▶ NAD RSM Optimization
 - ▶ Stakeholder meeting, State of Delaware (NAP)
 - ▶ Stakeholder meeting, California (SPL)
 - ▶ Baltimore District Section 204 Assistance
 - ▶ BOEM collaboration
 - ▶ Outreach & Communication of benefits
 - ▶ Programmatic Focus areas help nationwide

Trusted Partners Delivering Value Today for a Better Tomorrow

RSM & Natural Infrastructure

Hurricane Matthew 2016



For additional information
and assistance with RSM Contact:

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