Regional Sediment Management Program Update

RSM IPR
Successes & Challenges Meeting
17-19 May 2016

Regional Sediment Management Program Update

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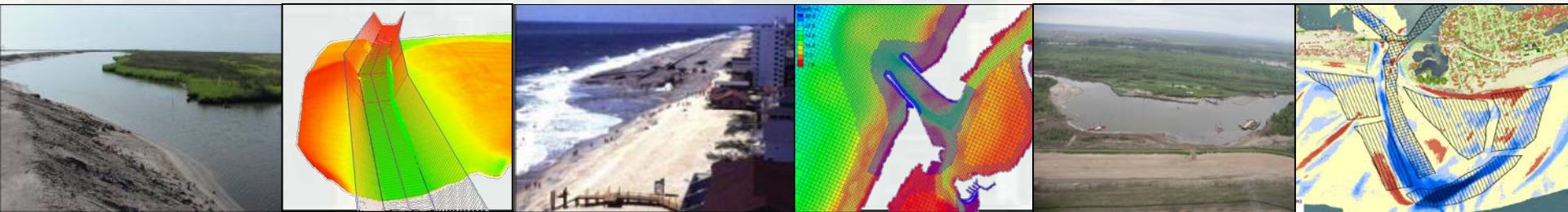
Regional Sediment Management…

Est 1999, CERB Charge

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.

- Recognizes sediment as a valuable resource for Healthy Systems
- Regional strategies across multiple projects and business lines to achieve short & long-term economic & environmental value & benefits
- Enhances relationships with stakeholders & partners to better manage sediments across a region (local actions w/regional benefits)
- Share data, tools, technology, and lessons learned



RSM

Districts

Integrate RSM Across Projects and Authorities

Navigation O&M

Continuing Authorities Program

Dredge Material Mgmt Plans

Feasibility Studies

Other

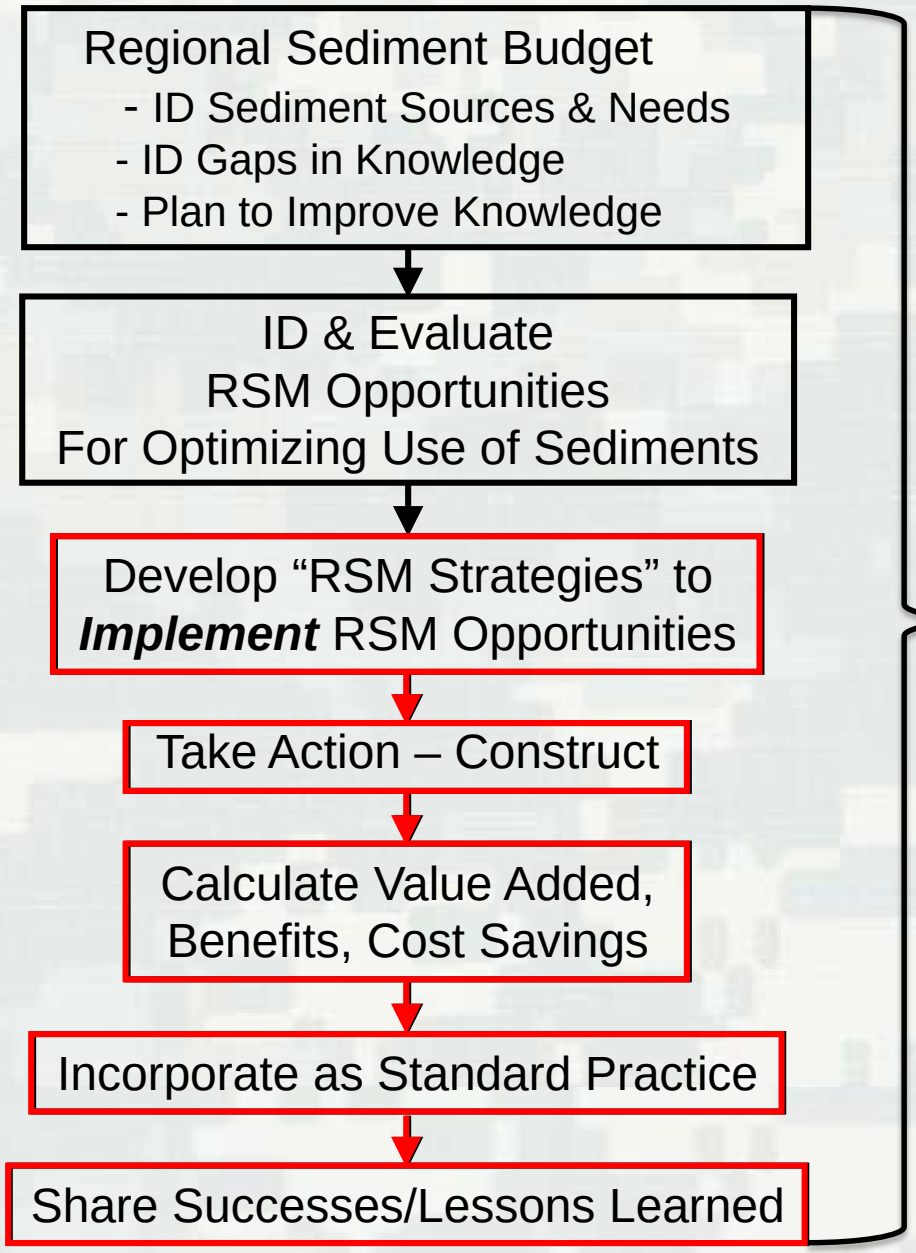
Construction

RSM Process

Understand the Region

Opportunities Strategies

Implement Construct



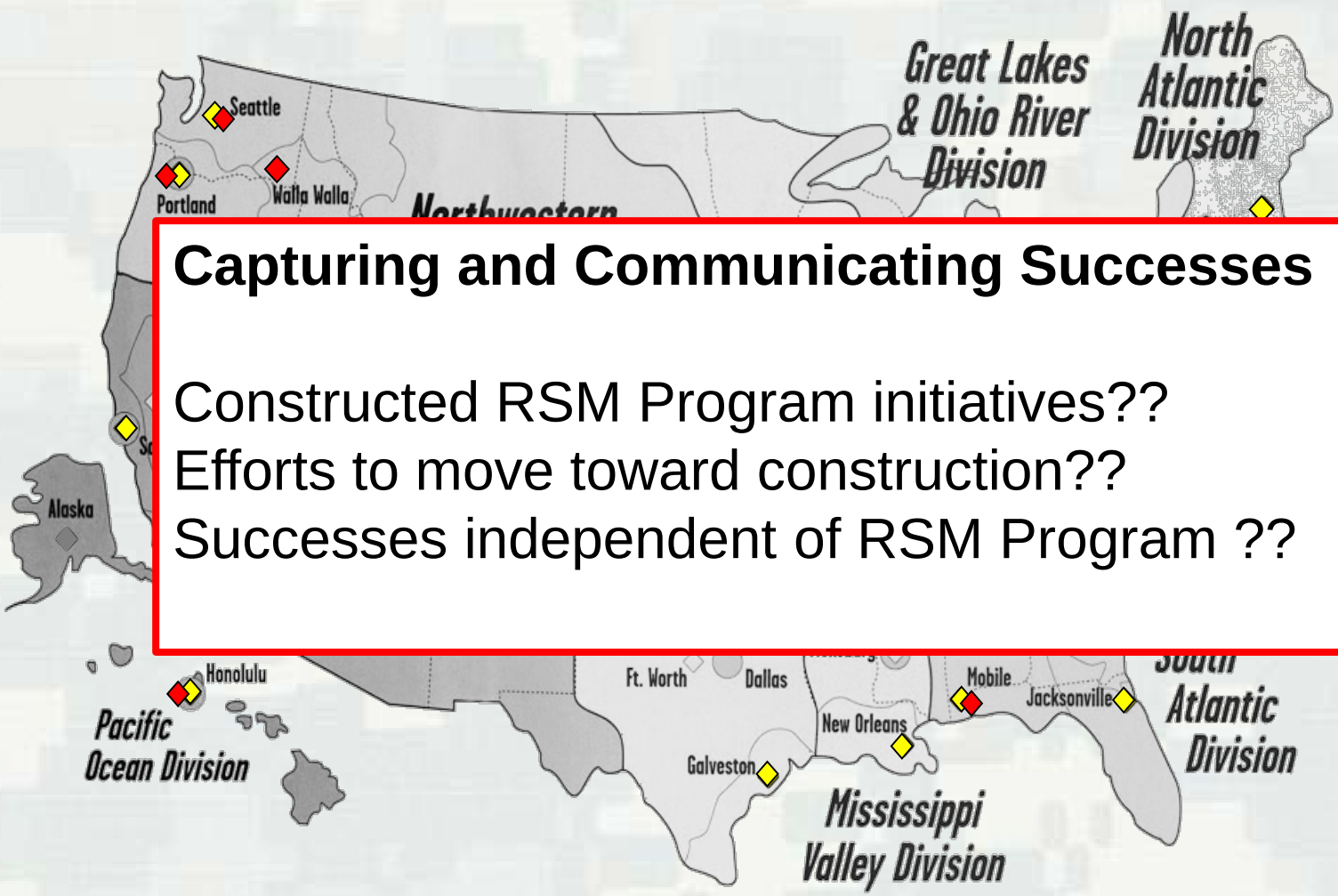
Communication
Coordination
Collaboration

USACE
(Planning,
Engineering,
Operations…)

Partners
Stakeholders

Resource
Agencies

RSM Participation (2000-2016)



Capturing and Communicating Successes

Constructed RSM Program initiatives??
Efforts to move toward construction??
Successes independent of RSM Program ??

28 Districts
20 Coastal
8 Inland
7 Coastal/Inland
ERDC, IWR-HEC

FY16 RSM

Districts

LRB Lake Erie Sediment Budget Report
LRC IL North Shore Sediment Budget & RSM Strategy
POH Sunset Beach Oahu Sediment Budget & RSM Strategy
NAE Saco Bay Sediment Budget & RSM Strategy
SAJ Puerto Rico Sediment Budget & RSM Strategy
SAW Carolina Beach Inlet Sediment Budget & RSM Strategy
NAP Barnegat Inlet & Bay System Sediment Budget/Strategy
NWP Lower Columbia River RSM Strategy
NAO James River Navigation Channel, RSM Strategy
POH American Samoa Utulei Beach RSM
SAJ Tampa Bay RSM Ecosystem Restoration Strategies
SWG GIWW-Corpus Christi Ship Channel Shoaling Reduction & Tools
LRC Improving Effectiveness Nearshore Placement S Lake MI
SAJ Palm Beach Harbor/Lake Worth Inlet Nearshore Placement
SAM/SAJ Eval FL Turbidity Compliance Issues w/Nav Projects
SAM BU Dredged Material: Fill Oyster Dredge Holes Mobile Bay
SAD RSM Strategy Pilot Tool
NAO Lower Chesa Bay/Eshore Cost Analysis local vs regional approaches
SAJ/ERDC True Cost of Dredging Analysis
NAP Data Management Major NAP Navigation Projects
MVR Sangamon/Illinois River Sedimentation Reduction
NWS Feas Skagit Bay nearshore placement downdrift Swinomish Nav Ch
NWO Evaluating Impacts of Increased Sediment Load MO/MI Rivers
SAM Alternate Training Work Construction Methods Using Dredge Material
NWK Milford Lake Reservoir Sediment Mgmt Workshop/solutions
NWP Optimizing Fall Creek Reservoir Flush TMDL's
NWS Ediz Hook post-dam removal shoreline change
NAN Stakeholder Mtg Sandy Hook Channel Sediment Mgmt

*R&D/Tech Transfer

Nav Data Integration Framework
RSM Strategy Tool
RSM Implementation Database/Tool
RSM Portal
Sediment Budget Analysis System
CE-Dredge Dredging Manager
CE-Dredge Decision Support Tool
Sediment Analysis & GeoApp
Nearshore Berm Guidance/Tools
  Sediment Mobility Tool
  Depth of Closure Database
Benthic Mapping Demonstration
CIRP/NCMP/NavSYS/DOER Applications

*Collaboration w/ Districts & R&D Programs

28 District RSM Initiatives

Sediment Budget/RSM Strategy Address RSM Issue
Reduce River Sedimentation Reservoir Assist Implementation

Outreach

Stakeholder/Training Workshops

MVR Governors Conference Mgmt of IL River System, Oct 2015
CHL AdH Hydrodynamics and Sediment Workshop, SPA, Dec 2015
SAJ Tampa Bay RSM Ecosystem Restoration Strategies Workshop, Jan 2016
SAJ Puerto Rico Workshop, Jan 2016
NAD Coastal Mayors Mtg, Mar 2016
CHL LTFATE/PTM training, NAO, May 2016
NWP Mouth of Columbia River Science & Policy Workshop, May 2016
POH American Samoa Workshop, July 2016
NWK Reservoir Sedimentation Workshop, July 2016
LRE Interpreting Sediment in the Field: Theory & Methods, July 2016
SAM Mobile Bay Interagency Working Group, Quarterly

Articles

Collaboration & Public Participation COP Newsletter: RSM on the IL River, MVR, Jan 2016
ASBPA Coastal Voice Newsletter:
CHL/SAJ, Research on Nearshore Placement at Vilano Beach, Feb 2016
NWO/HEC - LAO People's Democratic Republic: RSM, Reservoir Sediment Mgmt

Conferences

ASBPA Conference, New Orleans, Oct 2015
ASBPA Summit, Washington, DC, Jan 2016
TRB-Committee on Marine Transportation, DC, June 2016
River Flow 2016, St Louis, MO, Jul 2016
CERB, Puerto Rico, Aug 2016
ASBPA Conference, Long Branch, NJ, Oct 2016

Send info!!
Agendas, briefs, papers, etc

FY15/16 Program Publications – 18 Technical Notes, 6 Technical Reports

CHETN-XIV-40	Saco Bay, Maine: Sediment Budget for Late-20th Century to Present	NAE/ERDC
CHETN-XIV-41	Regional Sediment Management (RSM) Strategy for Mobile Bay, Alabama	SAM/ERDC
CHETN-XIV-43	Reservoir Sediment Mgmt Workshop for Tuttle Creek Lake & Perry Lake Reservoirs KS River Basin	NWK
CHETN-XIV-44	Alts Reduce Shoaling GIWW & Prevent Erosion of Barrier Islands along N Shoreline W Galveston Bay	SWG/ERDC
CHETN-XIV-45	Identification of Alternatives to Reduce Shoaling in the Galveston Entrance Channels, Texas	SWG/ERDC
CHETN-XIV-46	Flocculation and Settling Velocity Estimates for Reservoir Sedimentation Analysis	ERDC
CHETN-XIV-47	Potential RSM Projects; West Maui Region, Maui, Hawaii	POH
ERDC/CHL TR-16-3	NE Florida RSM Implementation Strategies & Recommendations Nassau & Duval Co, Florida	SAJ
ERDC/CHL TR-15-9	Modeling of Nearshore Placed Dredged Material	CHL/LRB
	In Publication	
Technical Note	Applying 1D Sediment Models to Reservoir Flushing Studies: Measuring, Monitoring, and Modeling Spencer Dam Sediment Flush with HEC-RAS	NWO/IWR
Technical Note	Environmental Benefits of Restoring Sediment Continuity to the Kansas River	NWK
Technical Note	Reservoir SEDiment MANagement (SEDMAN) Technologies Interactive Web Interface: An Overview	ERDC
Technical Note	Benefits & Lessons Learned:Maintenance Dredging Projects using Gov't Shallow-Draft Dredges SAJ	SAJ/ERDC
Technical Note	Beach and Morphology Change Using Lidar	SAJ
Technical Note	Regional CMS Modeling; Southwest Florida Gulf Coast	SAJ
Technical Note	Regional Sediment Management (RSM) Assessment of Longboat Pass, Manatee County, FL	SAJ
Technical Note	Passage Key Inlet, Florida; CMS Modeling and Borrow Area Impact Analysis	SAJ
Technical Note	Identification of Challenges and Opportunities for RSM and EWN within Inland USACE Districts	ERDC/NWO/NWK
Technical Note	Atlantic Coast of MD, Sediment Budget Update: Tier 2, Assateague Island & Ocean City Inlet	ERDC/NAB
Technical Note	Charleston Harbor Dredged Material Beneficial Nearshore Placement	SAC
Technical Report	RSM Strategies for the Vicinity of St. Augustine Inlet, St. Johns County, Florida	SAJ
Technical Report	Sediment Transport Analysis; Port Orford, Oregon	NWP
Technical Report	Sediment Budget Analysis; Masonboro Inlet, North Carolina	SAW
Technical Report	Charleston Harbor Dredged Material Beneficial Nearshore Placement	SAC

RSM Inland Meeting, March 15-16, 2016

Actions

- Section 14 Emergency Streambank and Shoreline Protection
  - Capture lessons learned
- ID risks as dredging costs increase
- ID benefit river sediment mgmt upstream to downstream system
- Outreach need for RSM before it has to be dredged
- ID Future impacts if RSM is not implemented
- Capture past RSM for sediment use
- Pilot projects to address challenges
- True cost of reservoir bypassing or not
- Regulatory standardization across states
- Reservoir Sustainability Plans
- *RSM University: Corps and Stakeholder Education and Training*

ASBPA 2016 USACE Award
Mobile District & Interagency Working Group
RSM Teams

RSM FY17 Proposals: Due 22 July 2016

- **Supports RSM Principles and Practices**
- **Takes action to optimize and move sediment**
- **Reduces lifecycle costs/Increases benefits or value added**
- **Innovative solutions**:
  - Links multiple projects, business lines, programs, projects
  - Develops new capabilities or techniques.
- **Utilizes existing/enhances Corps tools & builds Corps expertise**
- **National significance & product transferability**
- **Technical Transfer**:
  - Communicate lessons learned / Publish results
  - Calculate benefits/value-added
  - Participation in Annual RSM IPR & Workshop
- **Establish/Participate Interagency/Stakeholder Working Group**
- **Past Performance: Completed Products, Milestones, Participation**

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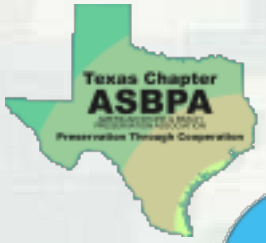
RSM Technical Notes,
Reports, Manuals, Conference Papers

Bi-Monthly
RSM Conference Calls
Webinars

Special Topic Webinars
Tools, Technologies, Implementation



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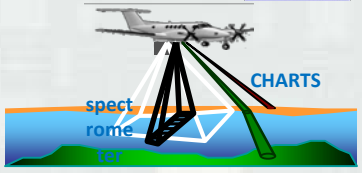
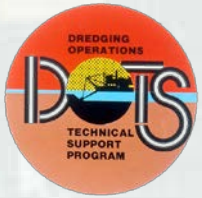
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