



# NATIONAL REGIONAL SEDIMENT MANAGEMENT PROGRAM ENHANCEMENTS

Katherine Brutsché, PhD  
Program Manager

Dave Perkey, Coastal Deputy PM

Tate McAlpin, Inland Deputy PM

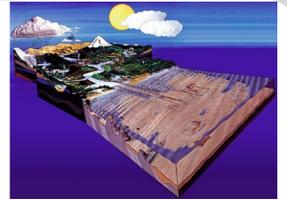


US Army Corps  
of Engineers



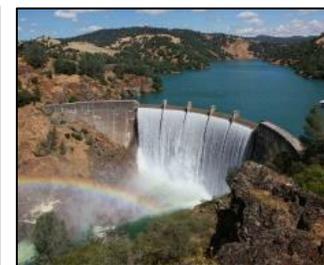
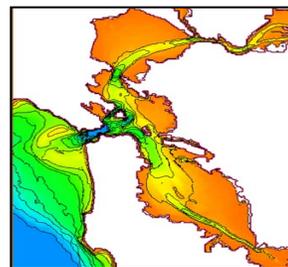
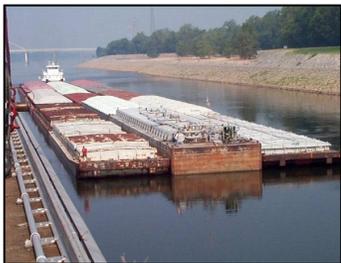
# Regional Sediment Management

Established 1999, CERB Charge



“A systems approach using best management practices for more efficient and effective use of sediments in coastal, estuarine, and inland environments for healthier and more resilient systems.”

- Recognizes sediment as a valuable resource
- Work across business lines, projects, and authorities to create short and long-term economically viable and environmentally sustainable solutions
- Improve operational efficiencies and natural exchange of sediments
- Consider regional implications of project scale actions and benefits
- Apply/Enhance tools and technologies for regional approaches
- Share lessons learned, information, data, tools, and technologies
- Communicate and collaborate



# RSM Goals and Strategies



Reduce Upland/CDF Disposal



Bypass Backpass Sediments



Reduce Erosion



Save Capacity



- **Keep sediments in the system**
- **Mimic natural sediment processes**
- **Reduce unwanted sedimentation**
- **Environmental enhancement**
- **Maintain & protect infrastructure**



Stabilize Structures



Reduce Channel Shoaling



Reduce Runoff



Ecosystem Habitat Restoration



# Recent Texas Based RSM Projects

- FY15- Lower Matagorda Ship Channel: Shoaling Reduction & Operation Tool
- FY16- Galveston Island Sand Management Strategy
- FY16- Strategies to Manage Sediment in GIWW & Corpus Christi Ship Channel
- FY17- GIWW-Bolivar Flare Shoaling Reduction & Beneficial Use (BU)
- FY18- Design Considerations for BU Sites along Channel to Victoria
- FY19- Geomorphological Investigation of the Brazos River
- FY19- Alternatives to Manage Sediment at Galveston Entrance Channel
- FY20- Optimization of BU along the Channel to Victoria

# Recent Texas Based RSM Projects

- FY15- Lower Matagorda Ship Channel: Shoaling Reduction & Operation Tool
- FY16- Galveston Island Sand Management Strategy
- FY16- Strategies to Manage Sediment in GIWW & Corpus Christi Ship Channel
- FY17- GIWW-Bolivar Flare Shoaling Reduction & Beneficial Use (BU)
- ***FY18- Design Considerations for BU Sites along Channel to Victoria***
- FY19- Geomorphological Investigation of the Brazos River
- FY19- Alternatives to Manage Sediment at Galveston Entrance Channel
- ***FY20- Optimization of BU along the Channel to Victoria***

# SWG – Channel to Victoria BU Utilization Investigation

POC: Steve Howard, Aron Edwards, Paul Hamilton



Develop/implement alternative approach for managing dredged material on the Lower Reach of the GIWW, CTV Project

## Benefits to the Navigation Project:

- Reduce quantity of material dredged (-15% average)
- Reduce cost to dredge (-28% average)

## Additional Benefits:

- Habitat creation/enhancement
- Potentially reduce dredging frequency
- Safer navigation
- Additional capacity for the Project
- Additional placement areas available for emergency dredging

## Leverage:

- Existing NEPA coordinated sites
- O&M funds
  - ▶ Reduced cost to dredge
  - ▶ No negative impacts to the project

Site 2 is the most promising for implementation:

- No/minimal costs prior to use
- Greatest improvement to bird habitat





# Future Program Goals

- **Continue District support to determine best RSM alternatives for projects**
- **Ongoing effort to quantify BU in USACE**
  - **Connect Dredging Information System directly to database**
- **Quantify cost savings/value due to RSM**
  - **Quantification of benefits not necessarily related to money (i.e. what is the value of a wetland?)**
- **R&D on innovative RSM solutions**
  - **Thin layer placements**
  - **CDF sediment usage**
  - **Adding more science to regulations (e.g. allowable percentage of fine sediment)**
- **Make RSM SOP in District and Division project planning**



# How do I get involved?

- **Work with your District on creating proposals that might help you manage your sediment more efficiently**
- **Join an Interagency RSM Team in your District**
- **Participate in stakeholder/resource agency workshops**



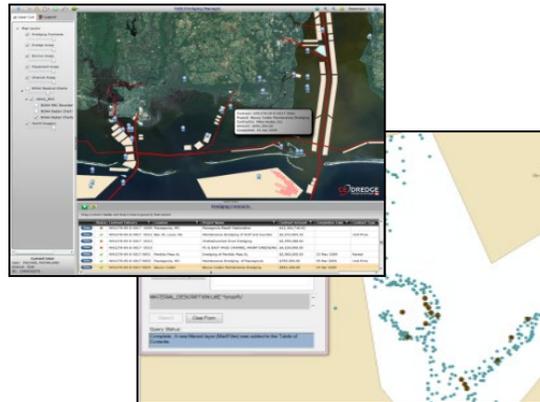
# Regional Sediment Management = Resilient Healthy Systems

RSM@usace.army.mil

[Katherine.E.Brutsche@usace.army.mil](mailto:Katherine.E.Brutsche@usace.army.mil)



Regional Sediment Budgets  
Local Actions=Regional Benefits



Data Management and Access



ODMDS  
Regional Strategies



Improved Relationships  
Outreach & Training



Riverine & Reservoir Mgmt



Ecosystem/Aquatic Habitat