**BLUF:** Provide a framework for determining the value added (in \$) of ecosystem restoration from RSM associated with a Civil Works project.

### Challenge/Objectives

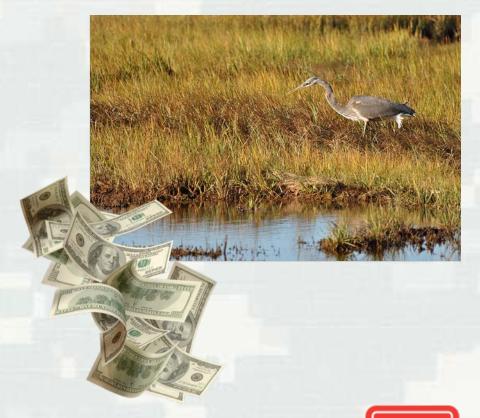
- Design methodology to be used by USACE Districts to calculate value added
- Methodology may require regional modification

### **Approach**

#### (including Tools/Models/Data Used)

- Literature review
- Stakeholder participation (academic and agency)
- Pilot projects (coastal and inland)





## Accomplishments/Deliverables Lessons Learned/Actions-Construction

A Conference on Ecosystem Services (ACES) 2016 – December 5-9, 2016

**Traditional Placement** 

Line Item	Cost
Mobilization	\$2,000,000
Dredging	\$5,000,000.00
Increasing Capacity	\$500,000.00
TOTAL	\$7,500,000

**RSM Option** 

Line Item	Cost
Mobilization	\$2,000,000
Dredging	\$5,000,000
Turbidity Control	\$500,000
Intricate Placement	\$500,000
Permitting/NEPA	\$200,000
Ecosystem Benefit	-\$1,000,000
TOTAL	\$7,200,000





#### **District/Other USACE PDT Members**

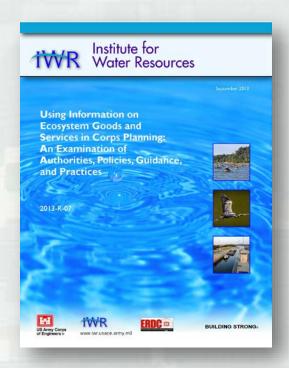
- Nicole Manasco (MVR)
- Chuck Theiling (MVP)
- Jackie Keiser (RSM RCX)
- Clay McCoy (RSM RCX)
- Matt Schrader (SAJ)
- Kevin Wittmann (SAJ)

### Leveraging/Collaborative Opportunities

 National Ecosystem Services Team (IWR)

#### Stakeholders and Partners

- National Ecosystem Services Team (IWR)
- Academic Institutions
- Federal Agencies (e.g., NOAA Office for Coastal Management)







### What is working? Ups? Success?

- Great team
- Lots of resources

### What is not working? Downs? Issues?

- There are a LOT of Ecosystem Goods and Services!!
- Important to accurately define the valued product.

Water supply & regulation

**Aesthetics** 

**Human health** 

Natural hazard mitigation

Raw goods & materials provisioning

**Navigation conveyance** 

Recreation

Cultural, spiritual, and educational support

**Ecosystem sustainability** 

**Property & infrastructure protection** 

Food provisioning

Climate regulation, carbon sequestration

**Human safety** 

Water purification & waste treatment





How is this project benefiting the USACE and Nation? (efficiency, monetary, technical, relationship building, outreach, etc.)

- Ability to assign a dollar value to the benefits provided by an RSM alternative will lay the groundwork for justifying these projects
- White Paper to assist districts in applying method to projects
- Coordinate with Division and HQ







