

RSM FY12 IPR

Evaluation of RSM Actions Using Government Shallow Draft Dredges North Atlantic and South Atlantic Divisions, Rich Thorsen & Dylan Davis

Description/Challenge

- Government Shallow Draft Dredges (SDD) serve multiple projects on Atlantic coast
- Little to no technical coordination to promote and achieve more efficient sediment management

Goals/Issues to Address

- Evaluate ways to improve sediment management on projects in NAD and SAD that use Government Shallow Draft Dredges (SDD)
- Identify RSM Opportunities across Business Lines using SDD fleet



BLUF: Explore how the government fleet of Shallow Draft Dredges can improve sediment management practices and strategies within NAD/SAD and across business lines

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NAD/SAD PDT Members

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Joe Olha, NAN
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Mike Anderson, NAO
Doug Stamper, NAO
Roger Bullock, SAW
Larry Calame, SAW
Roger Lafond, SAS
Tim Murphy, SAJ
Matthew Schrader, SAJ
Barry Dailey, SAM

Stakeholders and Partners

- Non-Federal Sponsors
- USCG

Milestones/Deliverables

- Workshop held 18-19 January 2012 at SAD
- Technical Note, 95% complete, September 2012

Leveraging/Collaborative Opportunities

- Low Use Navigation Pilot Program
- Non-Federal Sponsors
- USCG
- Berm Placement and Migration Research
 - Public perception
 - Environmental impacts
- DOER Program, especially fine-grained sediment research
- Engineering with Nature

Workshop Discussion

- Capabilities and operational aspects of SDD fleet:
 - Salient characteristics
 - Performance/production rates
 - Costs
 - Scheduling



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Approach

- Share project specifics and lessons learned between Wilmington District (as the SDD operator) and SDD-user Districts in NAD & SAD
- Discuss new ways to use and manage sediment, improve value (maximize productivity, reduce cost, optimize across business lines), gain operational efficiencies
- Determine how to best leverage the capabilities of the SDD fleet.

Benefits to O&M, FRM, Environmental

- Innovation across business lines: Navigation, Flood Risk Management, Ecosystem Restoration
- Benefits to Low Use Navigation Projects
- Expected benefits include improved sediment management, more efficient and productive use of SDD, and overall cost savings

Models, Tools, Databases, etc Used

- Government Dredge Fleet



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Opportunities to take action:

- Numerous districts exploring new uses for fleet
- Low Use Navigation Pilot Program
- Non-Federal Work
- SAW Road Show
- Similar opportunities with west coast fleet?

Accomplishments/Milestones

- NAD/SAD Workshop held January 2012 in Atlanta
- Draft Technical Note ERDC RSM-TN-19, dated July 2012, documents the findings and recommendations of the workshop
- Technical note was distributed to workshop participants for review on 1 Aug 12
- Final version expected in September 2012
- RSM Conference Call presentation, April 2012

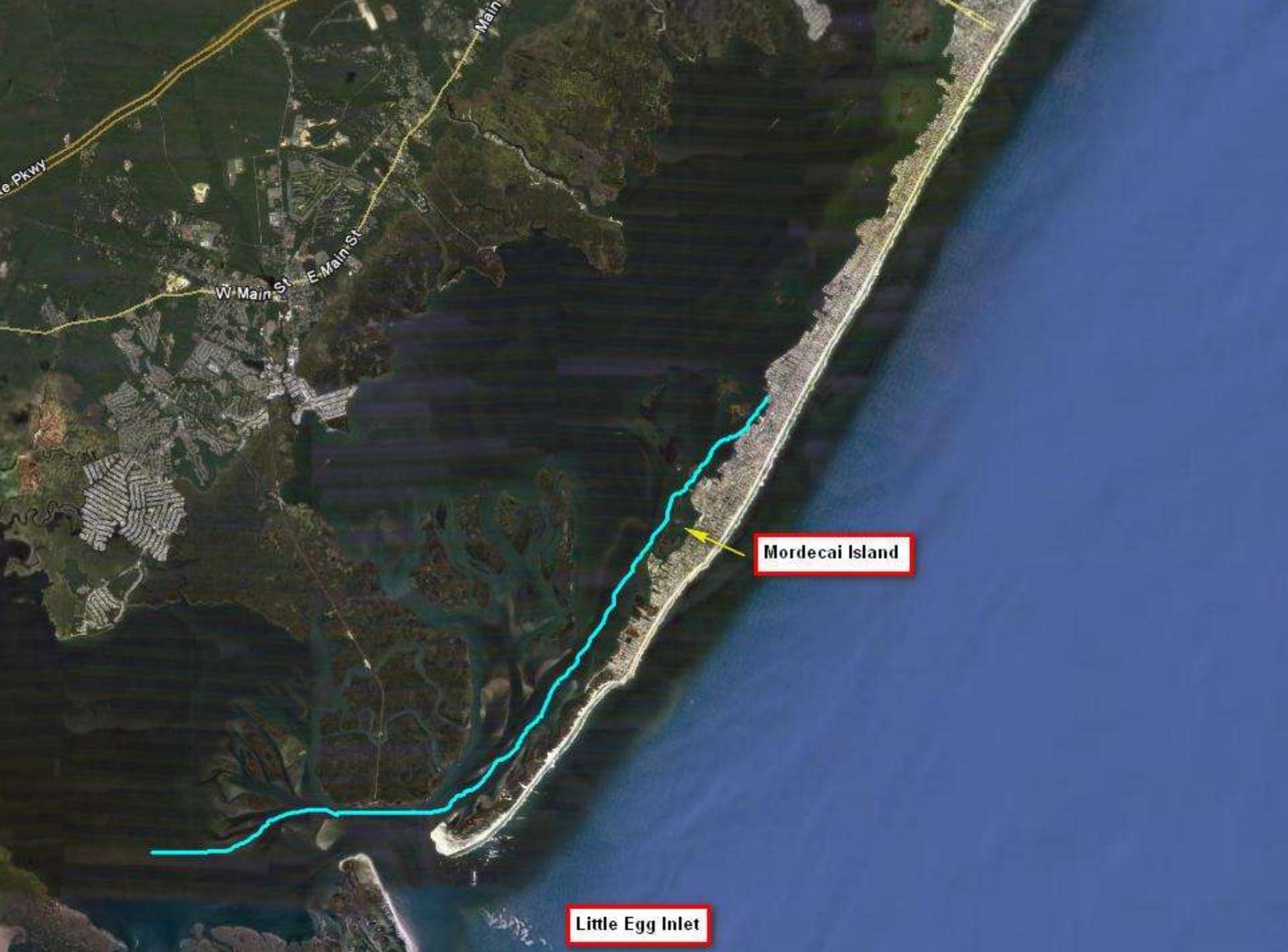
Volume of Sediment Moved

- Currituck
- Murden
- Snell
- Merritt



Lessons Learned

- Direct pumpout capability could expand and enable improved sediment management
- Use a regional systems approach to manage low use shallow draft projects
- Need tools to better determine sediment transport patterns once placed with a SDD
- Restrictions and constraints on placement differ within the NAD/SAD region
- There are gains that can be realized by leveraging work across business lines.



Mordecai Island

Little Egg Inlet

W Main St

E Main St

Main St

pkwy