FY16 RSM IPR
Norfolk District, James River Federal Nav Channel O&M RSM, Doug Stamper NAO RSM POC

BLUF: The Dancing Point Swan Point segment of the James River is a rapidly shoaling segment. Over 60% of the quantity dredged from the channel comes from this segment. This RSM effort models dredging placement cycles to determine the near, medium, and long term fate of the dredged material placed into the overboard placement site.

Description/Challenges
• James River Partnership - concern about potential increase in shoaling
• Problem real or perceived?
• Virginia Marine Resource Commission permit has condition to model fate of dredged material
• Future maintenance cycles could be at risk

Objectives
• Satisfy condition of VMRC permit
• Renew VMRC permit
• Continue maintaining James River channel
Approach

ERDC Scope of Work, Tasks

Hydrodynamic and Sediment Transport Modeling for James River Dredged Material Management:

- CH3D (Grid modification and hydrodynamic modeling)
- CDFATE and related models (Near field placement modeling)
- PTM (Far field suspended loss transport modeling)
- LTFATE (Morphology and overall mound transport)

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<table>
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<th>Product or Milestone</th>
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Accomplishments/Benefits/Lessons Learned/Actions-construction

James River Navigation Partnership presentation
    Technical approach outlined
    Sample products shown
    VA Pilots Association, Virginia Marine Resource Commission feedback

On-Board Reviews
    Worked best for soliciting comments
    2 review teleconferences
    Progress on technical report
    James River team comments

Training NAO team on using models:
    Workshop 04-05 May 2016

PICTURE(s) to assist in Describing information
What is working? Ups? Success?

- Action on satisfying outstanding permit conditions
- Continued maintenance dredging, least cost, environmentally acceptable placement
- Developing and updating technical competencies
- Interest by NAO Command on RSM – briefed COL Kelly on 09 NOV 2015
  - Included discussion of Federal Standard
- Virginia Port Authority and Eastern Shore Navigation Partnership interest

What is not working? Downs? Issues?

- Contracting difficulties initially
- Some trouble with CE Dredge – RMS data not populated at NAO
- Internal perceptions about ERDC responsiveness, final product
- PDT concern about stakeholder buy-in
- Continuing resolution funding
- Asset Management – O&M FY18 Increments 3 and higher Asset Management Portfolio Analytics (AMPA)
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District/Other USACE PDT Members
Walt Trinkala, James River OPM
Dave Linn, Survey Manager
Robert Pruhs, Environmental Engineer
Nan Sothcott -> Margo Gunter, Program Analyst
Walter Kloth -> TBD, GIS
Alicia Farrow, H&H Section
Larry Cocchieri, NAD RSM
Susan Bailey, ERDC
Joseph Gailani, ERDC
Sung-Chan Kim, ERDC
Paul Schroeder, ERDC

Stakeholders and Partners
James River Partnership
Virginia Port Authority
Port of Richmond
Virginia Marine Resource Commission
CENAO, CENAD, ERDC

Leveraging/Collaborative Opportunities
James River O&M, General
RSM
Corps Software Development
Investment in Enterprise GIS

PICTURE(s) to assist in Describing information
Value to the Nation

- Cost savings – this segment of the river generates most of dredged material quantity removed
- Value added
  - value of increased capacity in placement area: Capacity of placement site saved and therefore $ saved on coordination, surveys, modeling, etc. to designate a new placement site not needed for x-years
  - value of sediments used downstream
- Leveraging resources
- Environmental benefits
- Improved partnerships, happy stakeholders
- Permitting and compliance requirements improved (cost savings from reduction in requirements)