

US Army Corps of Engineers. Engineer Research and Development Center

Regional Sediment Management Program

Norfolk District: Lower James River VA



Description

The James River Federal navigation channel is located in southeastern Virginia. With at least six other federal navigation projects located within the project area plus dredging needs on tributary channels, there is a need to address shoreline erosion and possible beneficial use strategies, while ensuring that adequate channel depths are provided and maintained in the Federal navigation channel. The US Army Corps of Engineers, Norfolk District, is undertaking a Regional Sediment Management (RSM) effort on the James River project coordinating the RSM activities with cities and counties within the watershed, the Commonwealth of Virginia, and other Federal Agencies with a particular focus on the lower portions of the James River Federal Navigation Channel.



Location Map

Issue/Challenge To Address

The James River project is a Federal navigation channel that receives annual funding for maintenance dredging. Recent topics in the James River Navigation Partnership meetings include discussion about the relationship between shoaling in lower James River shoals and erosion occurring along upstream banks and within tributary stream basins. The lower James River RSM effort will begin providing the District with a better understanding of the sediment dynamics in the lower James River.

The District anticipates the recent shoaling pattern changes will require a modification of James River dredged material management strategies in future years. There is also a need to link past scientific investigations along the river, the possibility of implementing revised

or new beneficial use strategies, and the possible need to revise sediment management techniques in the lower reaches of the James River on a regional scale.

Expected Products	 Data Management Plan Letter Report Documenting FY14 Activities RSM Technical Note Documenting Activities and Key Outcomes Maps and Graphics indicating: RSM System Boundary Delineation, Conceptual Sediment Management Strategy Utilization of Conceptual sediment budget created using the Sediment Budget Analysis System (SBAS) Scope of work for ERDC computer and simulation modeling for dredged material reports Recommendations for next steps in development of a Lower James River regional sediment strategy
Stakeholders/Users	The James River Partnership is already formally organized and brought for the need to examine regional sediment management needs on the lower James. The partnership will continue to be engaged in the process. Potential stakeholders involved include: Virginia Port Authority, MARAD, private and public corporations, the Virginia Pilots Association, various environmental agencies and special interests, RSM National Program, and the O&M General navigation business line.
Projected Benefits	Assist and enhance the District's development of James River future year performance- based budget submissions, assist in prioritizing future engineering and design work efforts and plans for future dredging contracts, provide tools for future environmental agency coordination, identifying potential Engineering With Nature solutions.
Leveraging Opportunities	James River is annually funded for navigation dredging and condition surveys. RSM efforts will pare well with the current year O&M General funding allocated on the James River Project. Other potential leveraging opportunities have potential: Virginia Port Authority, MARAD, DOER, Beneficial Uses of Dredged Material, Shallow Draft Navigation Program, Corps Computer Simulation and Modeling Tools, Virginia Institute of Marine Science.
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Participating Partners	Port of Richmond VA, James River Navigation Partnership