



Regional Sediment Management Program Mobile District (SAM): Alternate Training Work Construction Methods Using Dredge Material

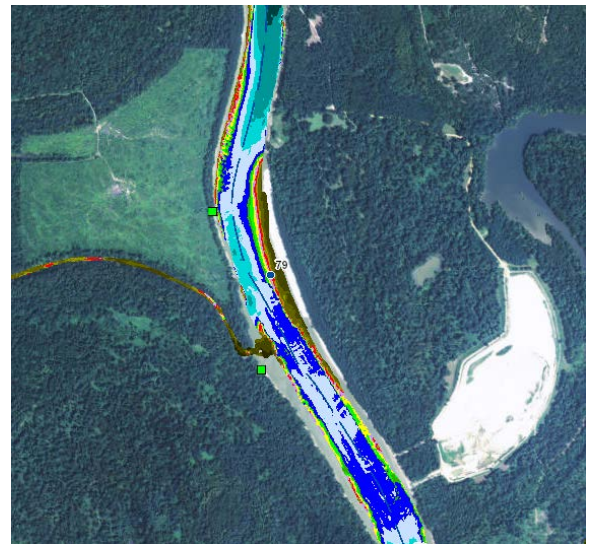


Description

This Regional Sediment Management (RSM) effort will investigate opportunities and develop a strategy to beneficially use dredged material from the Black Warrior Tombigbee River as a source of material for the training structures using technologies developed by the US Army Corps of Engineers (USACE) Applied River Engineering Center (AREC). AREC will construct a model of a segment of the BWT channel that poses the largest problem in the areas of dredge quantities and disposal capacity. The ultimate goals are to increase time between dredging cycles, reduce overall dredging costs, prevent removal of sand from the river system and extend the life of the disposal areas.

Issue/Challenge To Address

Approximately 20 Million cubic yards of dredged material is stockpiled below the Coffeeville Lock and Dam from years of maintenance dredging the BWT River System. Every year an additional 250,000 to 350,000 cubic yards is added to that stockpile. Current disposal options include either upland sites or within-banks disposal. The upland sites are for the most part at or near full capacity with very little opportunity for expansion. The challenge for the team will be to use the model to determine if there is a better placement option within banks that will reduce future dredging and to hopefully use the dredge material as a main ingredient for training dike construction.



Successes Lessons Learned

Lessons learned will be compiled during the duration of this study.

Expected Products

- Physical model of the worst shoaling/disposal reach of the river below Coffeeville
- Training structure design using native materials
- Final Report/Suggestions and Presentation

Stakeholders/Users

Users include the BWT/Mobile Navigation Team, the AREC team as well as waterway users.

Projected Benefits

Benefits would include the reduction of the BWT's overall dredging costs by identifying training structure placement to minimize shoaling within the channel template as well as investigating different types of training structures that could possibly use native materials (burlap and channel sand). Another related benefit to the reduction in dredging quantities is the fact that the amount of sand usually removed each year will now stay in the system to support other natural habitats downstream.



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Leveraging Opportunities

It may be possible to leverage on-going efforts with a professor from the University of Missouri-St. Louis to further develop the use of jute burlap materials as initial containment for a native sand crete to be used in the training structures.

Points of Contact

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Participating Partners

N/A