

# FY14 RSM-EWN IPR

St. Louis District (MVS); Kaskaskia River; David Gordon, P.E., Timothy Lauth, P.E.

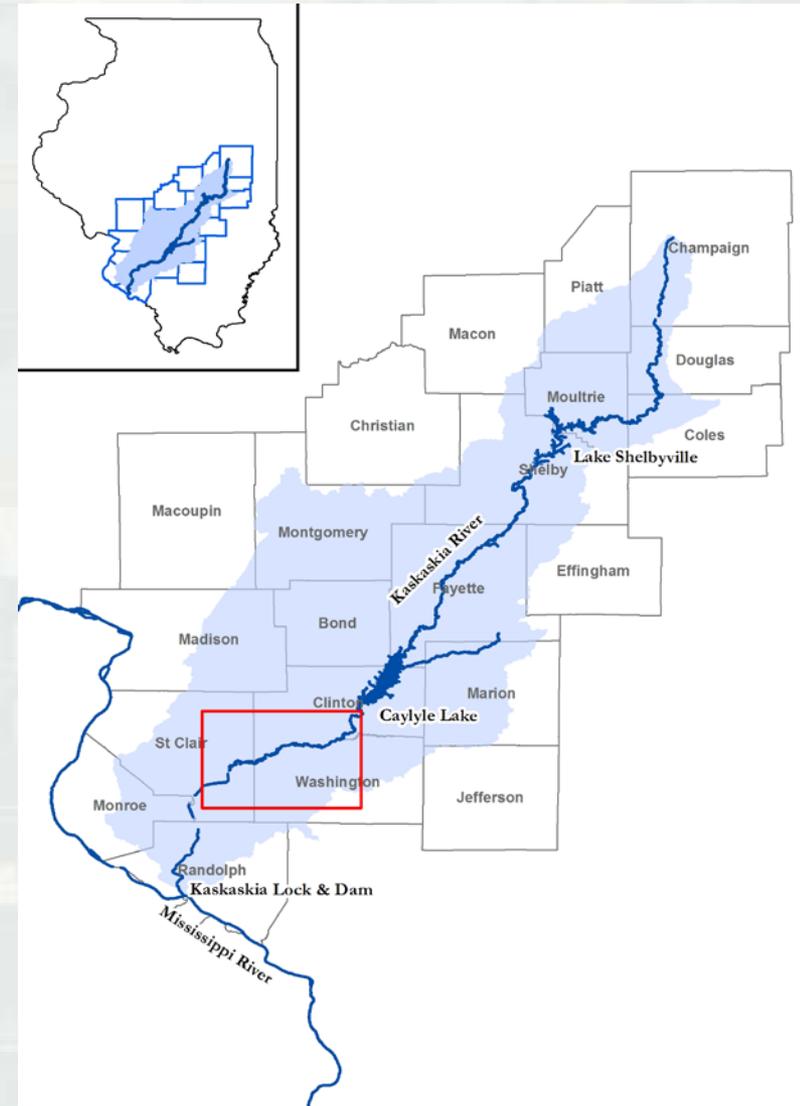
**BLUF:** Seek a solution to channel degradation due to progressive headcutting to lower channel maintenance cost and improve habitats

## Description/Challenges

- The upper reaches of the Kaskaskia River Navigation Project require significant maintenance dredging in order to maintain authorized channel depths.
- Headcutting and bank erosion from channel straightening contribute excess sediment into the project and degrade riparian and aquatic habitat upstream of the Project.

## Objectives

- Investigate the hydraulic connections between the navigation project and the natural river
- Determine dredging quantities sediment transport rates, bank erosion rates, headcutting locations, and beneficial uses of dredge material.
- Given above data, model potential solutions for improving channel and reduce habitat degradation
- Engage community on ongoing activity



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## Approach

(including Tools/Models/Data Used)

Field Data Collection – Bank sediment samples

HEC-RAS, SIAM numerical models

Historic dredge data, cross-sections, bed and suspended sediment samples, gage analysis

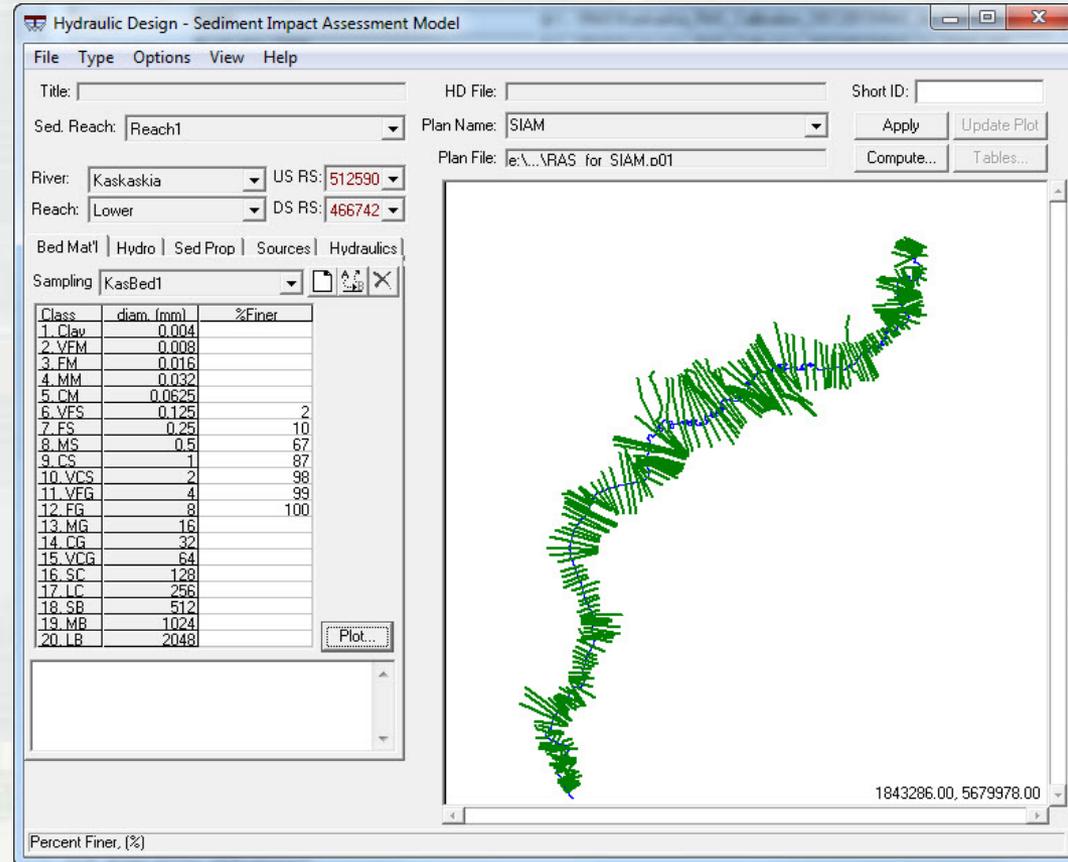
## Deliverables

Field Data Collection – 7/31/14

In Progress Update – 7/18/14

Modeling Technical Note – 9/31/14

Partnership Efforts – 9/31/14



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## Accomplishments/Benefits/Lessons Learned

Strength of proposal this year from refinement last year prepared us to maximize funding use

Significant progress has been made on the numerical modeling effort

The funding we got here continued the ball rolling for efforts at the project

Needed continued flexibility in sampling

## Opportunities to take action

Completion of planned numerical modeling leading to plan development

Start communicate the plan with partners and start to explore funding options



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## **District PDT Members**

Chief of the Hydraulic Design Section (EC-HD)  
Chief of the River Engineering Section (EC-HR)  
Operations Project Manager Rivers Project and  
Navigation Business Line Manager (OD-N)  
Chief, Operations Technical, Policy and Physical  
Support Branch (OD-T)  
Operations Project Manager Carlyle Lake/Kaskaskia  
River Project (OD-A)  
Assistant Operations Project Manager Carlyle  
Lake/Kaskaskia River Project (OD-AK)  
Dredging Project Manager (OD-D)

## **Leveraging/Collaborative Opportunities**

Due to policy and legislative reasons, Corps-independent permitted and funded dredging or contributed funding dredging were the only two means of reducing channel maintenance costs to the Corps

## **Stakeholders and Partners**

Kaskaskia Regional Port District (KRPD)  
Kaskaskia Watershed Association (KWA)  
Illinois Department of Natural Resources (IDNR)  
Illinois Environmental Protection Agency (IEPA)  
National Resources Conservation Service (NRCS)

