

# Sangamon/Illinois River Sediment Reduction

**Regional Sediment Management Program  
FY13 In-Progress Review**

**Heather Bishop**

Hydraulic Engineer

Rock Island District

21 August 2013



®

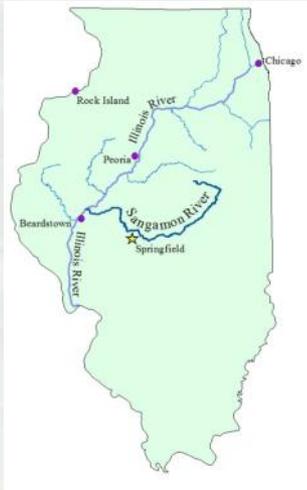
US Army Corps of Engineers  
**BUILDING STRONG**®



## Rock Island District, Sangamon/Illinois River Sediment Reduction

### Description/Challenges

- Lack of Sediment Data
- Complex, extensively cultivated watershed with erodible soils
- Backwater areas of the Illinois have filled in with sediment and frequent dredging is required on the Illinois



### Objectives

- Establish District RSM PDT
- Refine proposal and coordinate DOTS request
- Continue sediment budget development
- Perform sediment sampling



**BLUF:** This effort achieves greater understanding of the consequences of channelization and other land use activities in the Sangamon River watershed and explores opportunities for addressing sediment delivery to the Illinois River.

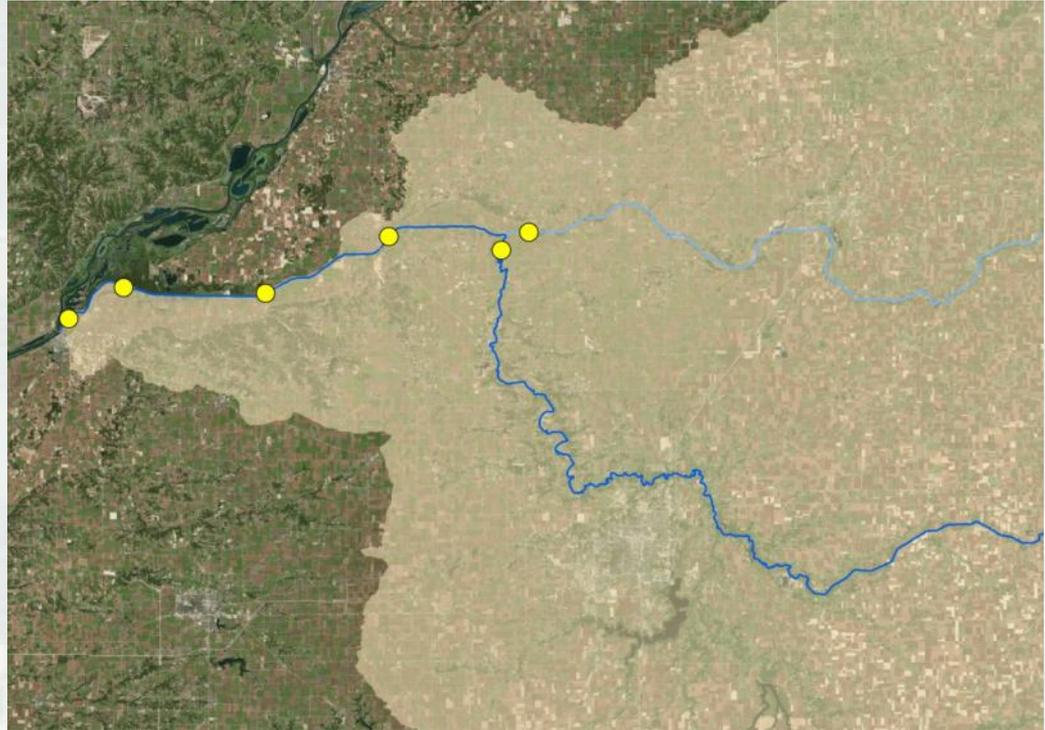


## Rock Island District, Sangamon/Illinois River Sediment Reduction

### Approach

#### (including Tools/Models/Data Used)

- Site Visit and Discussion with DOTS personnel – SIAM or HEC-RAS
- Developed preliminary sediment sampling plan – Sampling will occur the week of Aug. 26<sup>th</sup>



### Deliverables

- Revised proposal - DONE
- SBAS
- Report with sediment budget updates and sampling results



## Rock Island District, Sangamon/Illinois River Sediment Reduction

### Accomplishments/Benefits/Lessons Learned

- Engaged Planning Division, local stakeholders
- ERDC expertise to refine short- and long-term goals, scope, and tasks
- Performed gage analysis of Oakford Gage – determined that the stream was degrading at that location
- Continued work on sediment budget
- Experimental sediment collector – Mackinaw River trial run
- Investigation of sediment sources (sampling)
- Collaborated with Geotechnical Engineering Branch

### Opportunities to take action

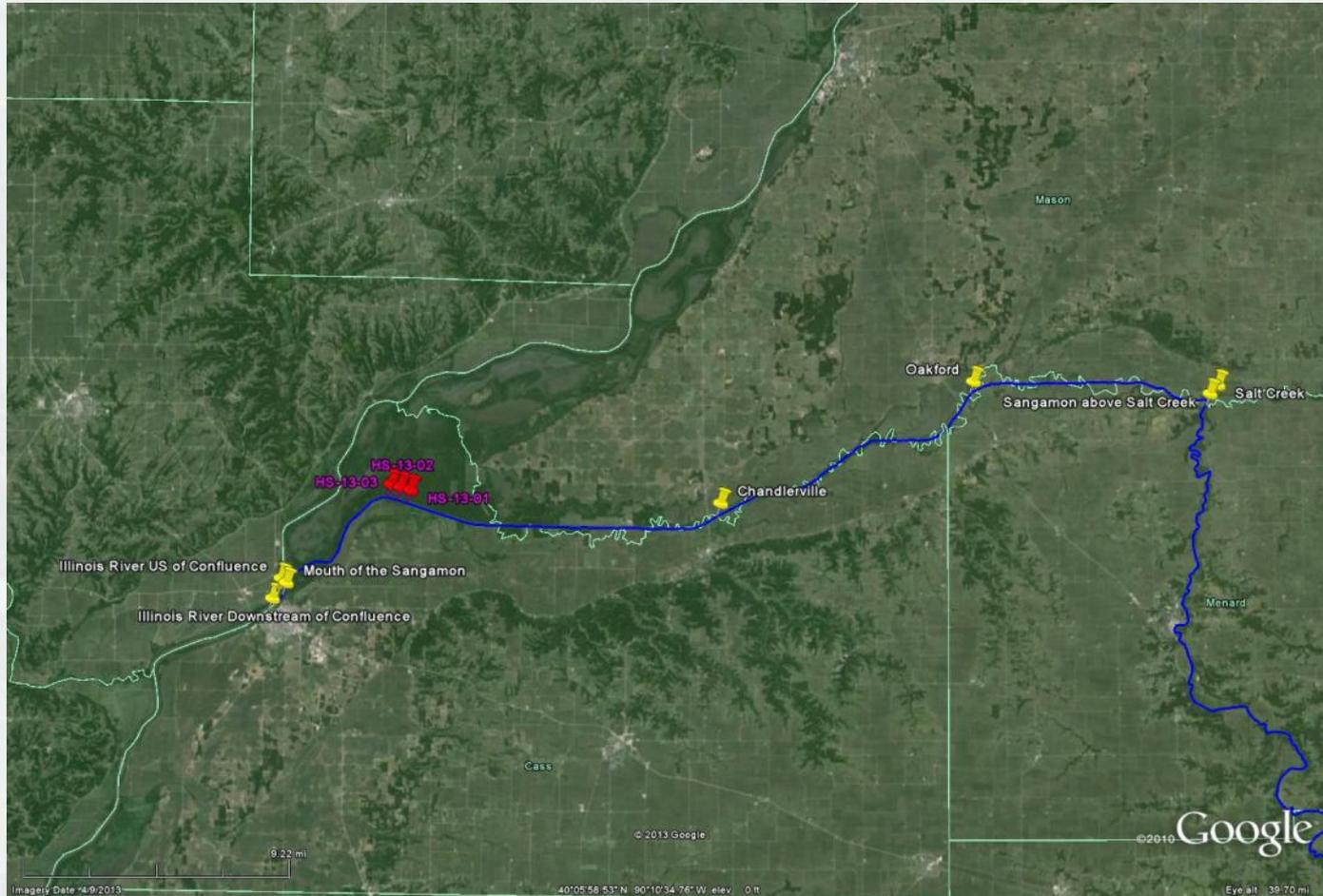
- Short-term – investigate beneficial use opportunities and sediment collector system
- Long-term – changing land use practices to reduce runoff during storm events and erosion & reducing the sediment carrying capacity of the Sangamon River



# FY13 RSM IPR

## Rock Island District, Sangamon/Illinois River Sediment Reduction

### Proposed Sediment Sampling Plan



# FY13 RSM IPR

## Rock Island District, Sangamon/Illinois River Sediment Reduction Mackinaw River Sediment Collector Trial – July 2013

2 ft. and 4 ft. collectors



Placing the 2 ft. collector



## Rock Island District, Sangamon/Illinois River Sediment Reduction

### District PDT Members

- Nicole Manasco, Operations
- Toby Hunemueller, Engineering
- Heather Bishop, Engineering
- Elizabeth Bruns, Engineering
- Marshall Plumley, Planning

### Leveraging/Collaborative Opportunities

- Illinois River Basin Restoration Program (IL 519)
- Navigation (Operations Division)
- Environmental Management Program (EMP)
- Navigation and Ecosystem Sustainability Program (NESP)
- PL84-99 Program – sediment sampling
- Collaborated with USGS on Gage Analysis
- Beneficial use of Illinois River Sediment

### Stakeholders and Partners

- Illinois State Water Survey, Sediment Budget
- Illinois Department of Natural Resources
- USGS – Illinois Water Science Center
- Local Communities
- Natural Resources Conservation Service (NRCS)

