### **FY17 RSM IPR**

Rock Island District, Sedimentation Impacts at the Confluence of the Sangamon and Illinois Rivers

**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

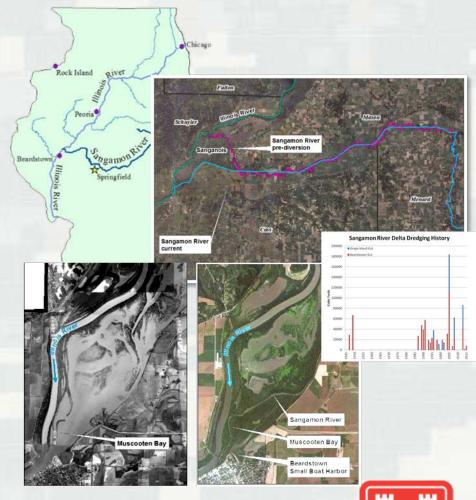
sediment delivery to the Illinois River.

### **Description/Challenges**

- Most expensive dredging location in the District
- Historic USACE project changed outlet of River
- Backwater areas of the Illinois have filled in with sediment (also affecting Federal Small Boat Harbor)
- Lack of data
- Lack of regional/political will
- Massive sand stockpiles to offload

### **Objectives**

- Continue sediment data acquisition and analyses
- Expand collaboration efforts Gov. conference, continued stakeholder engagement
- Develop beneficial use strategies for sediment
  - IDOT use of sand for new bridge
  - Partnership for soil manufacturing
  - Increase topographic diversity
  - Improve local ag. fields





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#### **District/Other USACE PDT Members**

- Matt Afflerbaugh, Operations
- Jason Appel, Real Estate
- Elizabeth Bruns, Engineering
- Nicole Manasco, Engineering
- Chuck Theiling, Planning

### **Leveraging/Collaborative Opportunities**

- ISWS Previous USACE suspended sediment station reopened by state
- NGRREC Suspended sediment and nutrient monitoring
- USGS Proposed ADCP Suspended Sediment Station
- PL 84-99 Borrow site for levee repairs
- ERDC Levee Setback Research Project Using 2015 Sangamon HEC-RAS model for case study

2015 Stakeholder meetings published in USACE "Collaboration Corner"

#### **Stakeholders and Partners**

- Illinois State Water Survey
- National Great Rivers Research & Education Center
- Ducks Unlimited
- University of Illinois
- Illinois Department of Natural Resources
- USGS Illinois Water Science Center
- Local Communities
- Minnesota Soil and Mulch



### **Mulch Compost**

## **Site Operations**



Sand Stockpile and Blending

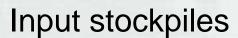




### **Site Operations**



Drying fine material





Custom soil inventory





### **Manufactured Soil**





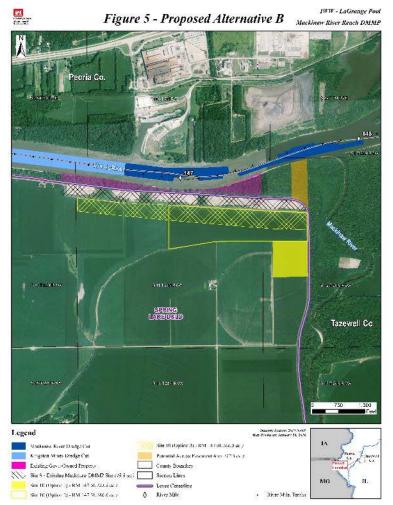
### Menu of Materials:

- Peat
- Wood fines
- Black dirt
- Sand
- Manure





# Mackinaw Site Needs Expansion for Placement









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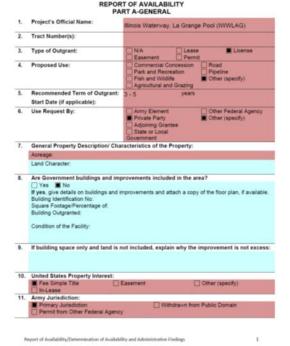
#### **Deliverables**

Article to IL River Governor's Conference	10/29/15
Presentation at the RSM-EWN IPR	5/17/16
Stakeholder Meeting	7/14/16
Meeting Summary from the Stakeholder Meeting	7/31/16
Technical Note – ILWW Sediment Beneficial Use Summary Report from UIUC	Delayed - CESU
Beneficial Use Plan	In Draft

#### **Lessons Learned**

- CESU's are not "EASY BUTTONS"...assume similar to longer time than contracts
- Be willing to be flexible and see new opportunities as they present themselves (our research at Sangamon led us to a potentially different solution for a different reach of the river).









### Soil Blending at DMMP Site

 Dredged Material from MVP is being used commercially for MN DOT purposes



Project Spotlight

Park Nicollet Frauenshuh Cancer Center
St. Louis Park, Minnesota





This project was a win win for all. Minnesota Mulch and Soil reused on-site dredged creek material by mixing it with MIM&S special "DSM" compost product. This provided an excellent planting bed medium for the location. Money was saved: no landfill costs, reuse of on-site soils.







