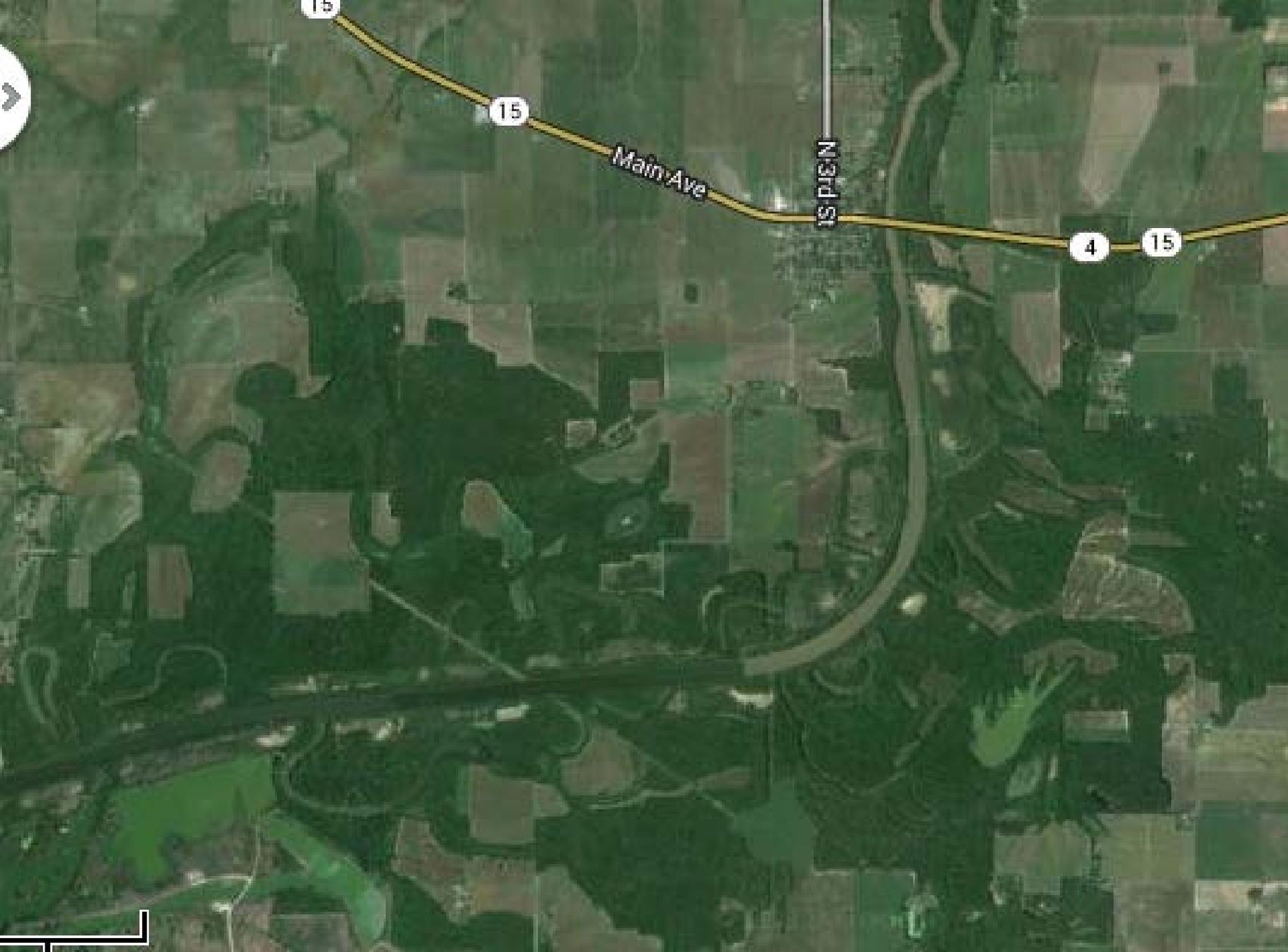


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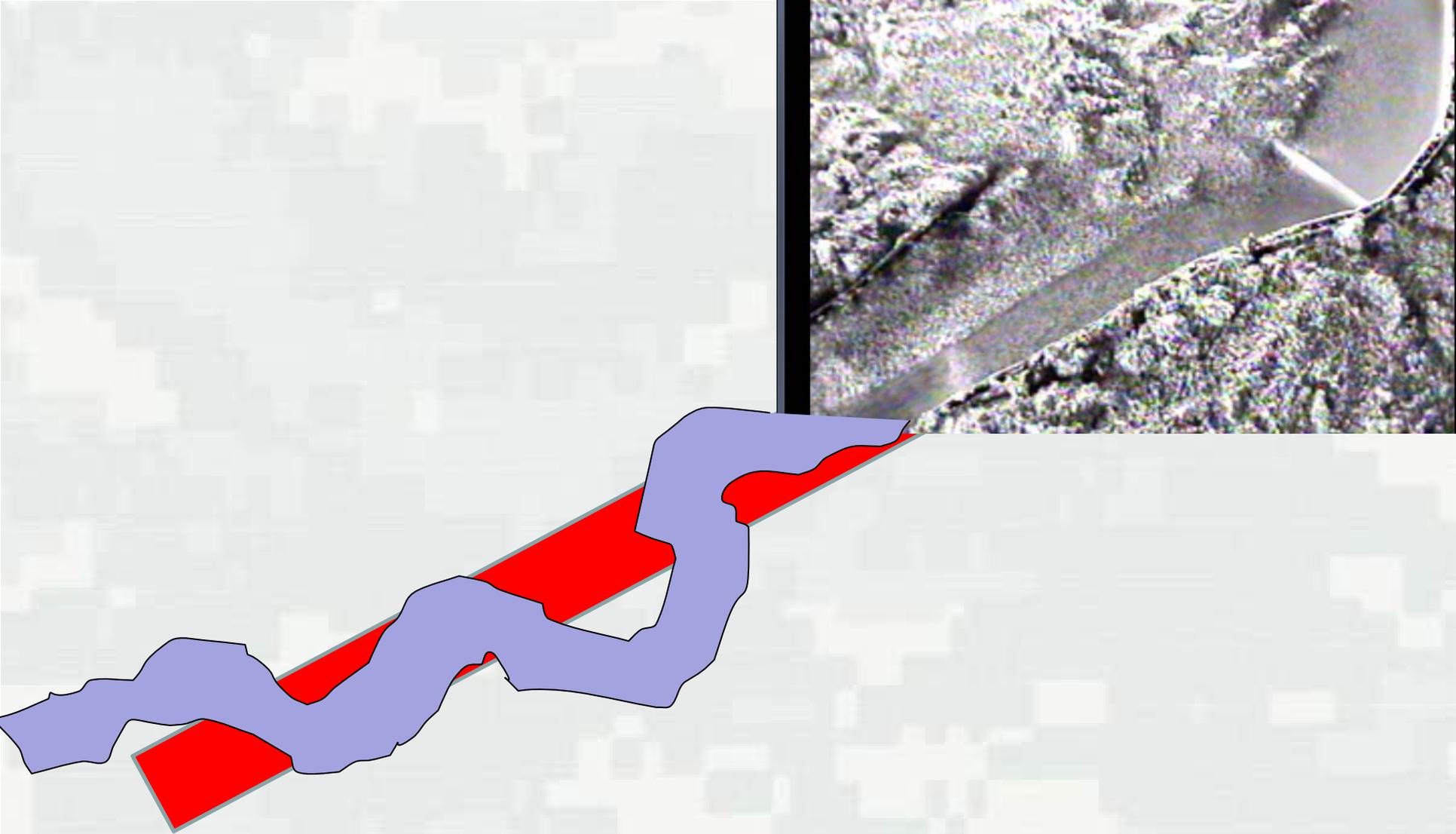
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Main Ave

IS PLEN

4

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FY13 RSM IPR

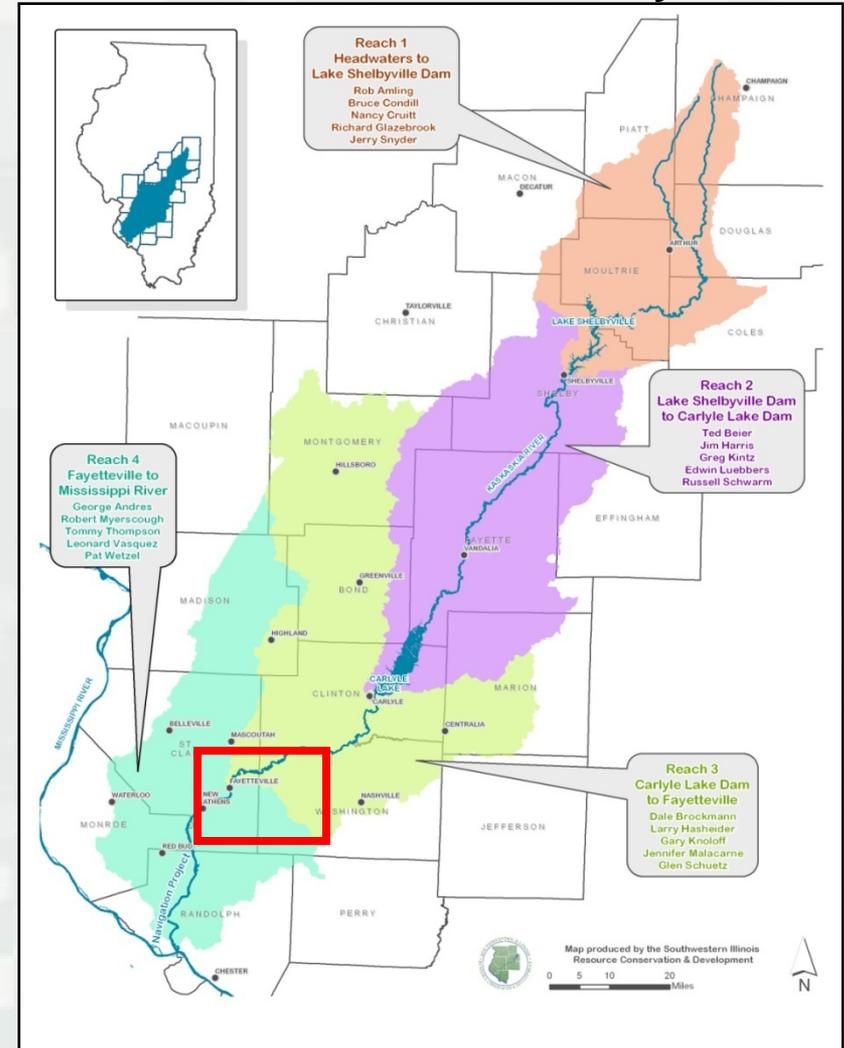
St. Louis District (MVS); Kaskaskia River; David Gordon, P.E., Rob Davinroy, P.E.

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. **16 miles of river cutoff**

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



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



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Approach

(including Tools/Models/Data Used)

- Field Data Collection – Bed and suspended sediment samples
- Cross-section collection and analysis
- Plans for HEC-RAS, SIAM numerical models



Deliverables

- Channel Stability Analysis Report – 9/13
- Field Data Analysis Summary – 12/15/13
- Sediment Budget – 4/31/14
- Potential Erosion Control Measures Paper - 4/31/14
- Workshop / Partnership Agreements – 9/31/14



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Accomplishments/Benefits/Lessons Learned

- PDT developed, Proposal fully defined
- Data collected for numerical modeling efforts
- Estimates of sediment transport rates, bank erosion rates, headcutting locations in Channel Stability Analysis

Opportunities to take action

- Continue to seek additional funding, now with fully defined proposal
- FY 14 RSM Proposal submitted



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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

- Submitted as one of 2 MVD watersheds for the FY 2014 budget pilot which looked at developing a watershed based budget.
- 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)



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