



US Army Corps
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Upper Mississippi River Comprehensive Plan (UMRCP)

October 05

One Team: Relevant, Ready, Responsive and Reliable



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UMRCP Background



- **Authorized by WRDA 1999**

“The Secretary shall develop a plan to address water resource and related land resource problems and opportunities in the upper Mississippi and Illinois River basins from Cairo, Illinois, to the headwaters of the Mississippi River, in the interest of the systemic flood damage reduction...”

- **Current cost estimate \$5.8 M**



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UMRCP Background



■ Accomplishments

- This is the first time the basin has been analyzed systemically on a statistical frequency basis.
- The systemic impacts of both large- and small-scale changes to the existing flood protection system are better understood.

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Regional Team



- **Management District – Rock Island**
- **Regional PM – St. Louis**
- **Economics – Rock Island**
- **Environmental – St. Louis**
- **Hydraulics – St. Louis**
- **Public Involvement – Rock Island**
- **Recreation – St. Paul**
- **Collaborators**

- **Vertical team - Districts, Division, Headquarters**

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UMRCP



- Background
- **The Study Area**
- **Objectives**
- Alternative Plans
- Current Status
- Recommendations & Completion

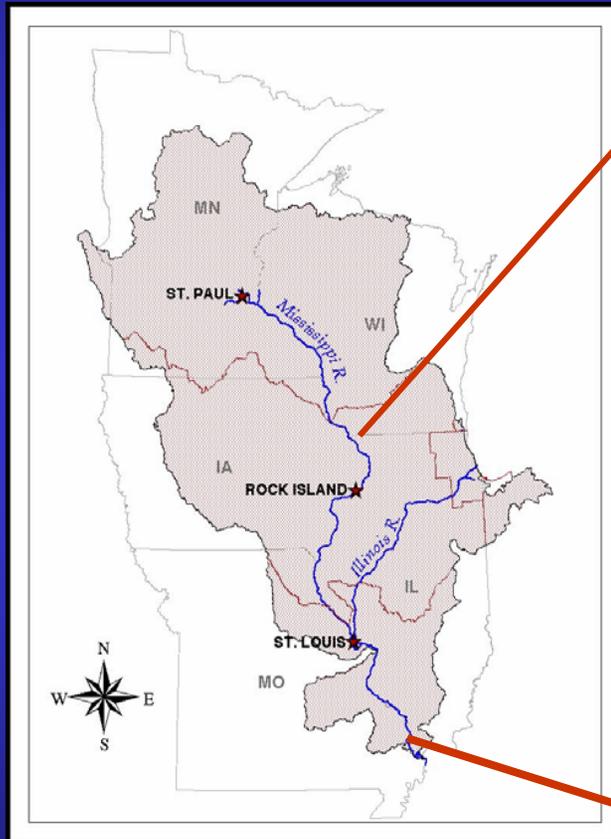


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Upper Mississippi and Illinois Rivers



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Goal

- **Develop a systemic flood damage reduction plan.....**
 - ◆ Addresses flood damage reduction needs
 - ◆ Support economic and environmental sustainability goals



Objectives

- **Minimize threat to health and safety**
- **Reduce flood damages and costs**
- Identify opportunities to support environmental goals
- Seek opportunities to address other floodplain problems, needs, and opportunities
- Identify and recommend appropriate follow-on studies

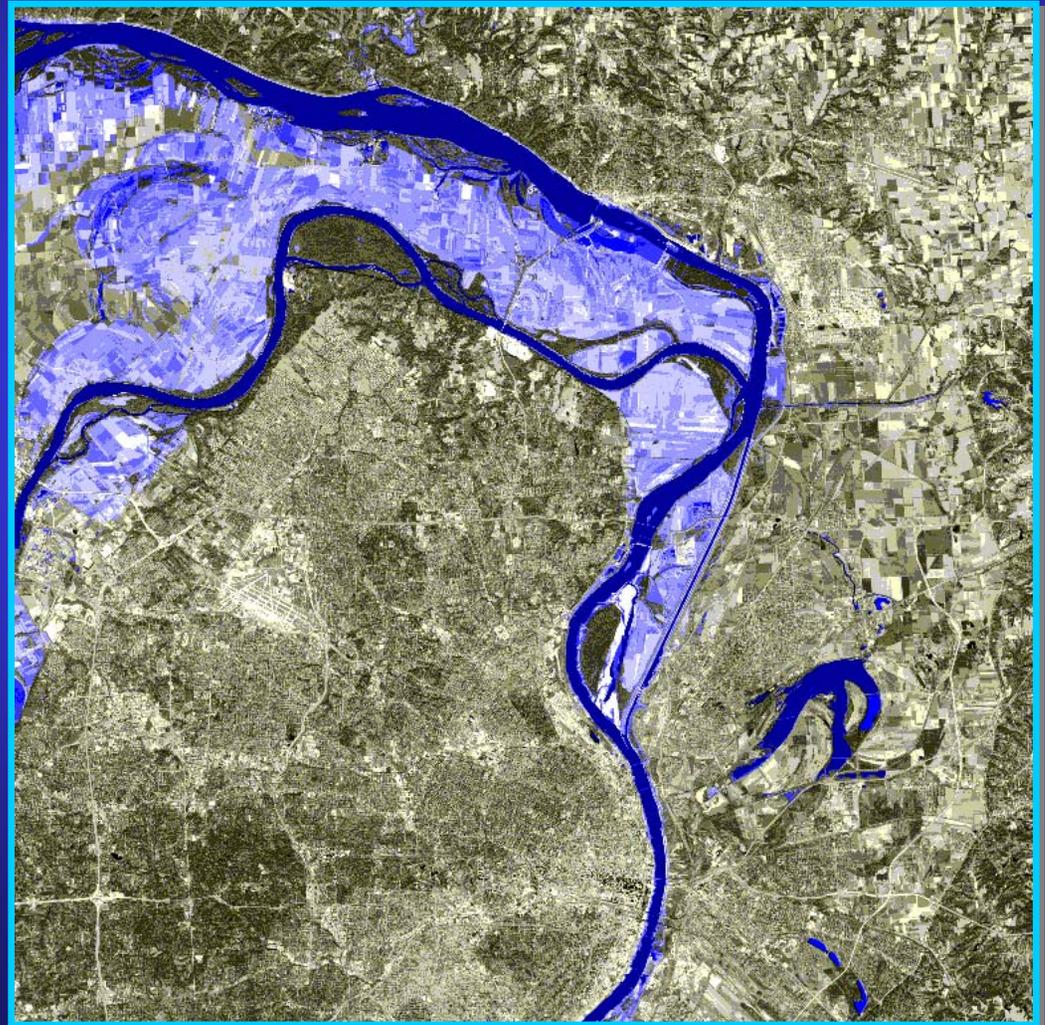
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Alternative Plans Flood Damage Reduction



- **Alternative Plans B thru E**
 - **B-500-year Urban/Agriculture/Unprotected**
 - **C-500-year Urban & 200-year Agriculture**
 - **D-500-year Urban & ~100-year Agriculture**
 - **E-500-year Urban & 50-year Agricultural**
- **Evaluation summary**
 - **First Cost \$2.9-5.0B (Annual cost \$189.9-327.2M)**
 - **Avg. annual benefits \$11.2-13.5M**
 - **System Benefit-to-Cost Ratios (Alt B-E) – 0.04-0.06**
 - **Regional Economic Development Benefits (present value - \$22 to \$30 billion)**

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Alternative Plans



■ Preliminary Alternative Plans

- **F**-Non-structural Plan - 500-year urban, no mainstem ag levee raises, interior ring levees – doing sample analysis only
- **G**-500-year urban and 500-year ag – allowing maximum of one foot impact to MR&T – MR&T impacts would be mitigated
- **H**-Non-structural Plan - 500-year urban, no mainstem ag levee raises, interior buyouts – sample analysis only
- **I**-Non-structural – buyout development in 100-yr floodplain
- **J**-Floodplain management – floodplain evacuation – hydraulic evaluation to understand impact of levees
- **K**-Critical infrastructure (reduce impacts)
- **L**-Critical infrastructure – transportation only (initial B/C for Quincy Bridge area – 1.0)

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Emergency Action Scenarios



“a system wide operational strategy for conveying floodwaters during major flood events”

“Flood Fighting, Emergency Operations”

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Emergency Action Scenarios



- **Analysis --**

Hydraulic - impact, rise resulting

Economic - damages prevented

- **4 options – “flood fighting”**

- Raise Urban 2 feet
- Raise Urban 2 feet & all Agricultural 1 foot
- Raise Urban & all Agricultural 2 feet
- Raise Urban & all Agricultural 3 feet



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Current Status



- **Completing alternative analysis**
- **Prepare draft report for independent technical review (ITR)**
- **Goal-Prepare draft report to distribute to public in November**

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Recommendations – Preliminary

1. Systemic flood damage reduction
2. Fabius D&LD – Feasibility opportunity
3. Reconstruction
4. Follow on analysis/studies

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COMPLETION MILESTONES

ITR review – early Nov

Draft Report to public – Nov

Public meetings – Dec

Final Report to Division - Mar

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