

Kansas City, Missouri and Kansas Flood Risk Management Project

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ABSTRACT: The existing Kansas City, Missouri and Kansas, Flood Risk Management Project consists of seven levee units along both banks of the Missouri and Kansas Rivers in the Kansas City Metropolitan area.

The entire system of seven levee units withstood the Flood of 1993, but some elements of the system

were seriously challenged as the flood crested. This flood experience raised a concern that the levees may provide less than the level of performance for which they were designed.

The Final Feasibility Report is the conclusion of a study to update and verify data on the level of performance and benefit provided by the existing system. This study evaluated whether one or more plans for reducing flood risk and increasing levee reliability is likely to be technically viable, economically feasible and environmentally acceptable.

The study has been conducted in two phases. An Interim Feasibility Study and EIS was published in 2006 presenting study results and recommendations for the Argentine, Fairfax-Jersey Creek, North Kansas City, East Bottoms and Birmingham Levee Units of the system.

This Final Feasibility Study completes Phase 2 of the study and presents recommendations for Armourdale and Central Industrial District Units of the system. The non-Federal sponsors for the Phase 2 levee units are the Kaw Valley Drainage District of Wyandotte County, Kansas, and the City of Kansas City, Missouri.

The recommended plan provides flood risk management benefits up to three feet above the 0.2 percent event (500-yr flood) water surface profile. Targeting this level of performance is consistent with the system evaluation approach and the recommendations of the Interim Feasibility Report. Implementation of this plan includes raising both units as much as five feet above their current height, the installation of

additional underseepage control measures to accommodate the raise, and improving the reliability existing structural and drainage control features.

Based on October 2013 price levels and a 3.5% interest rate, the estimated implementation cost of the Final Feasibility Report Recommended Plan is \$204,586,000 Federal and \$110,161,000 Non-Federal for a total estimated cost of \$314,747,000 at October 2013 price levels. Project costs will be shared with two non-federal sponsors in accordance with Section 103 of the Water Resources Development Act of 1986, as amended.

Based on the current 3.5 percent discount rate and a 50-year period of analysis, the Recommended Plan generates annual flood risk management benefits of \$56.7 million at an annual cost of \$17.1 million. Net average annual equivalent benefits are \$39.5 million and the benefit to cost ratio is 3.3 to 1.

Report Documentation: Pertinent documentation on the project, the results of the CWRB and subsequent Washington-Level Review Actions are linked below:

- [CWRB Agenda](#)
- [Project Summary](#)
- [CWRB Briefing Slides](#)
- [CWRB Lessons Learned](#)
- CWRB Meeting Record
- State & Agency Review Comments Letters
- Documentation of Review Findings
- Signed Chief of Engineers Report
- Advanced Copy to Congressional Committees
- ASA (CW) Memo to OMB
- OMB Response
- ASA (CW) Transmittal to Congress
- Authorization

Additional Information:

[Northwestern Division](#)

[Kansas City District](#)