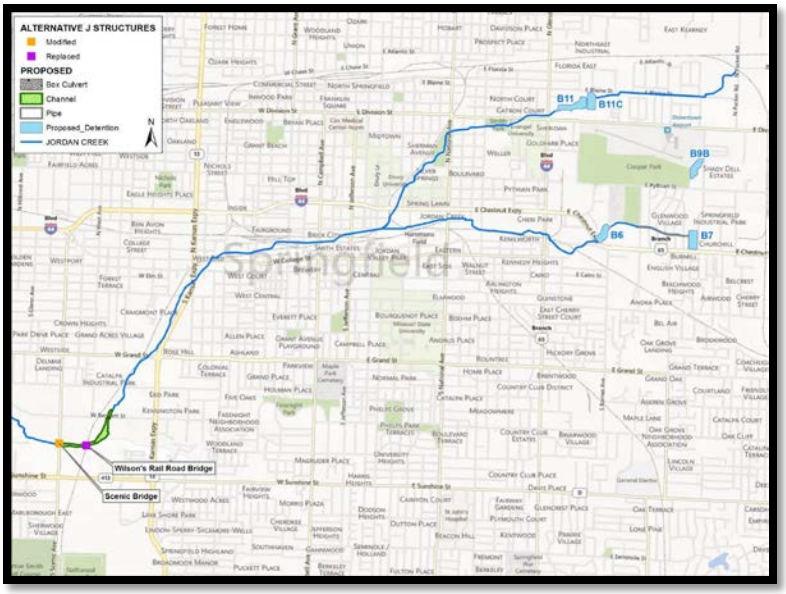
Jordan Creek Flood Risk Management Project
Springfield, Missouri
29 May 2013



Abstract: The overall objective of the planning study is to improve flood risk management and improve the overall quality of life for the residents of Springfield, Missouri. The City experiences damages from flash floods because of insufficient flow capacity along Jordan Creek. The area along Jordan Creek is heavily urbanized and includes extensive infrastructure associated with both commercial and industrial areas.

The National Economic Development (NED) Plan and recommended plan are both Plan J. The recommended plan is the NED Plan because it provides the greatest net benefits. Plan J leaves residual risk in the floodplain; however, the additional increment of work to reduce that risk has negative net benefits.

In Plan J, channel improvements only occur in Reach E1 and were designed to keep structural damage from a 1/500 Annual Chance Exceedance Event to a minimum. On Wilsons Creek, approximately 2,100 feet of channel widening will occur. Modification to Scenic Bridge will likely be required because of channel excavation beneath the bridge. The modification may include installing piers and a mat foundation. Because the railroad bridge over Wilsons Creek at the southeast corner of the ball fields causes a restriction to stream flow, it will be replaced. No recreational improvements are planned along with the channel modification because of the real estate restrictions on either side of the creek.

A flood diversion structure will be constructed adjacent the Archimica plant to prevent water from flowing over a low point on Bennett street into the manufacturing facility. The flood diversion structure completes the Archimica plants floodwall and protects it from flood damage. Channel work will end approximately 350 feet north of the Bennett Street Bridge.

Five regional detention basins are included in the NED Plan. Those basins are B6, B7, B9B, B11 and B11C.

Due to the highly developed, urban environment of the project footprint, and the fact that channel construction activity will be confined to the highly industrialized lower reach, the resulting environmental impacts are minimal. No compensatory mitigation is required.

Plan J, as the recommended and NED Plan, has a project first cost of $20,479,000 at FY 2012 price level; an annual cost of $1,173,300 [including Operations, Maintenance, Repair, Rehabilitation and Replacement costs (OMRR&R) of $234,400 per year]; annual benefits of $3,029,400; net benefits of $1,856,100; and a benefit-to-cost ratio (BCR) of 2.6 at an interest rate of 3.75 percent. Including NED benefits upstream of the limit of Federal interest, the net benefits are $1,961,100 with a BCR of 2.7. The BCR is 1.7 at an interest rate of 7 percent.

The fully funded total project cost is estimated to be $21,873,000 with a sponsor contribution of $7,656,000 and a Federal contribution of $14,217,000. The estimated cost of Lands, Easements, Rights-of-way, Relocations and Disposal areas (LERRD) is $6,470,000. The sponsor's required cash contribution is $1,094,000, and the sponsors total cash contribution is estimated to be $1,186,000. The sponsor is responsible for 100 percent of the OMRR&R costs.

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 and Agency Review of 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
- Signed Record of Decision
- Authorization

Additional Information:

Southwestern Division

Little Rock District