## The Levee Improvement Project for Southwestern Illinois

Progress Report - February 23, 2012 SW Madison County Chamber of Commerce

A system of 74 miles of mainline levees protects an area called the American Bottom in Southwestern Illinois from flooding by the Mississippi River. The American Bottom is an area of 174 square miles that is home to 156,000 people and 55,000 jobs. The levee system was authorized by Congress and designed and built by the U.S. Army Corps of Engineers to provide protection from a 500-year flood event on the Mississippi River. The American Bottom has not flooded in the 70 years since the flood protection system was built, including during the flood of record in 1993, a 300-year event.

In 2007, the Corps indicated that the agency had "reduced confidence" that the levee system could protect against a flood that has a 1% chance of being equaled or exceeded in any single year (commonly referred to as a 100-year flood or a base flood) without floodfighting. FEMA's announced decision to de-accredit the levee systems in our area, which is the industrial core of the St. Louis region, was based on this assertion by the Corps.

A number of area governments, businesses and citizens joined to file a lawsuit challenging this decision based, in part, on the lack of any documentation of levee system deficiencies. The lawsuit was ultimately dismissed after FEMA announced that the levees would continue to be accredited until new flood insurance maps are issued over the next several years. However, given the significant economic consequences of de-accreditation, area leaders are moving aggressively to make improvements to the levee systems to assure that it will meet all applicable current standards.

While the levee systems in this area were built by the USACE generally in the 1940s and 1950s using design standards in place at the time for 500-year protection, the current "design deficiencies" are measured relative to current engineering standards, so the issue is not a failure of adequate maintenance by local levee districts, or any dramatic change in the condition of the levees, but primarily a change in engineering standards and in the procedures for measuring risk.

Were the Corps to undertake levee improvements, the cost would be massive and the schedule will be open-ended. The cost would potentially be \$500 million or more in today's dollars and the schedule would be forty years or more. While the federal government could pay as much as 65% of the cost, it could take decades for those funds to be authorized and appropriated, so there would be significant uncertainty the cost and schedule of the project.

Because of the uncertainty of federal funding and the complexity and time consuming nature of the USACE design and construction process, levee improvements will be primarily locally funded. The three affected counties have imposed a ½% sales tax to pay for the restoration of the levee system and formed a new organization, the Southwestern Illinois Flood Prevention District Council to carry out the levee improvement project. The tax has been collected since January 2009 and produces about \$11 million annually.

The FPD Council has been up and running since July, 2009. Since that time, the organization has done a comprehensive inspection of the levee system, conducted a design competition to determine the most cost-effective approach to solving the problem, and have sold \$94 million in bonds to pay for levee improvements.

The preliminary design of levee system improvements is now complete and final plans are now being developed. The estimated cost estimate of the project, including a substantial contingency, is \$160 million, an amount that can be raised through the existing sales tax. Final design is now underway and applications for necessary permits were submitted in December 2011. The project is scheduled to be under construction as early as May, 2012 and be completed by late 2015.

