

Southwestern Illinois Flood  
Prevention District Council

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Annual Report 2010-2011



August 17, 2011





**Southwestern  
Illinois  
Flood Prevention  
District Council**

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August 17, 2011

Hon. Mark Kern  
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Chairman, Monroe County Board of Commissioners  
100 South Main Street  
Waterloo, IL 62298

Sirs:

Les Serman  
Chief Supervisor of  
Construction and the Works

Transmitted herewith is the 2011 Annual Report of the Southwestern Illinois Flood Prevention District Council. The submission of this report is in satisfaction of the requirement of our authorizing statute (70 ILCS 750/).

The Council has adopted two primary goals: to assure accreditation by the Federal Emergency Management Agency of area levee systems and to limit any economic damage to the region during the period during which accreditation is being sought. In 2011, the Council made great progress toward both goals. The preliminary design of levee system improvements was finished, the initial round of financing completed and a project implementation plan adopted. The plan is practical and affordable and could result in accreditation by 2015.

While the planning and design was moving forward, the Council and a number of other plaintiffs filed a lawsuit to challenge the validity of the preliminary flood insurance rate maps issued by FEMA. FEMA ultimately put the mapping process on hold nationwide to address complaints from areas like ours and our case was dismissed, but we achieved the desired result. We continue to question FEMA's conclusions about the adequacy of our levee systems, and we will now have more time to make improvements that can assure all concerned that our flood protection system is safe.

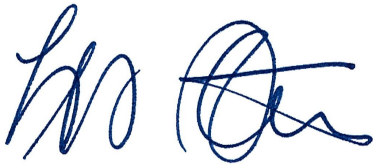
*a regional partnership to rebuild Mississippi River flood protection*

Hon. Mark Kern  
Hon. Alan Dunstan  
Hon. Delbert Wittenauer  
August 17, 2011  
Page 2

In summary, I am pleased to report on behalf of our Board of Directors, that it now seems likely that we will be able to design, build and finance a significant improvement to flood protection systems in metro-east. This will be an investment in the future prosperity of your counties and the region.

Thank you for supporting our efforts throughout the year.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Les Sterman', with a stylized flourish at the end.

Les Sterman  
Chief Supervisor of Construction and the Works

## I. Introduction

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On August 15, 2007 the Federal Emergency Management Agency announced their intention to “de-accredit” the Mississippi River levee systems protecting a 174 square mile area in three Illinois counties known as the American Bottom. The practical effect of this action would be to cripple the area economically and put an enormous financial burden on businesses and residents in this area. The threat of this action by FEMA prompted a chain of events that is without precedent in the area. The end result is a cooperative regional effort to improve flood protection and secure FEMA accreditation for the levee system protecting the American Bottom from flooding.

The American Bottom is an area of incalculable economic value and historical significance. It is home to some 155,000 residents. Businesses in the area employ upwards of 55,000 people. Some of the nation’s most prestigious companies have major manufacturing facilities having national significance in the area. The region’s leadership recognized that extraordinary measures were necessary to protect this economic asset and the homes and livelihoods of a large portion of the region’s population. A new revenue source was created in 2008 and a regional organization was formed to carry out an ambitious plan to maintain a level of flood protection that has been in place for some 70 years. That plan is now taking shape.

Having a plan in place, even one that may be subject to adjustment from time to time, is an essential ingredient in helping businesses and citizens prepare for the future, to restore investor confidence in the area, and to assure taxpayers that their money is being spent effectively.

The purpose of this report is to outline the activities of the Southwestern Illinois Flood Prevention District Council in 2011 toward planning and implementing flood protection improvements.



## II. Background

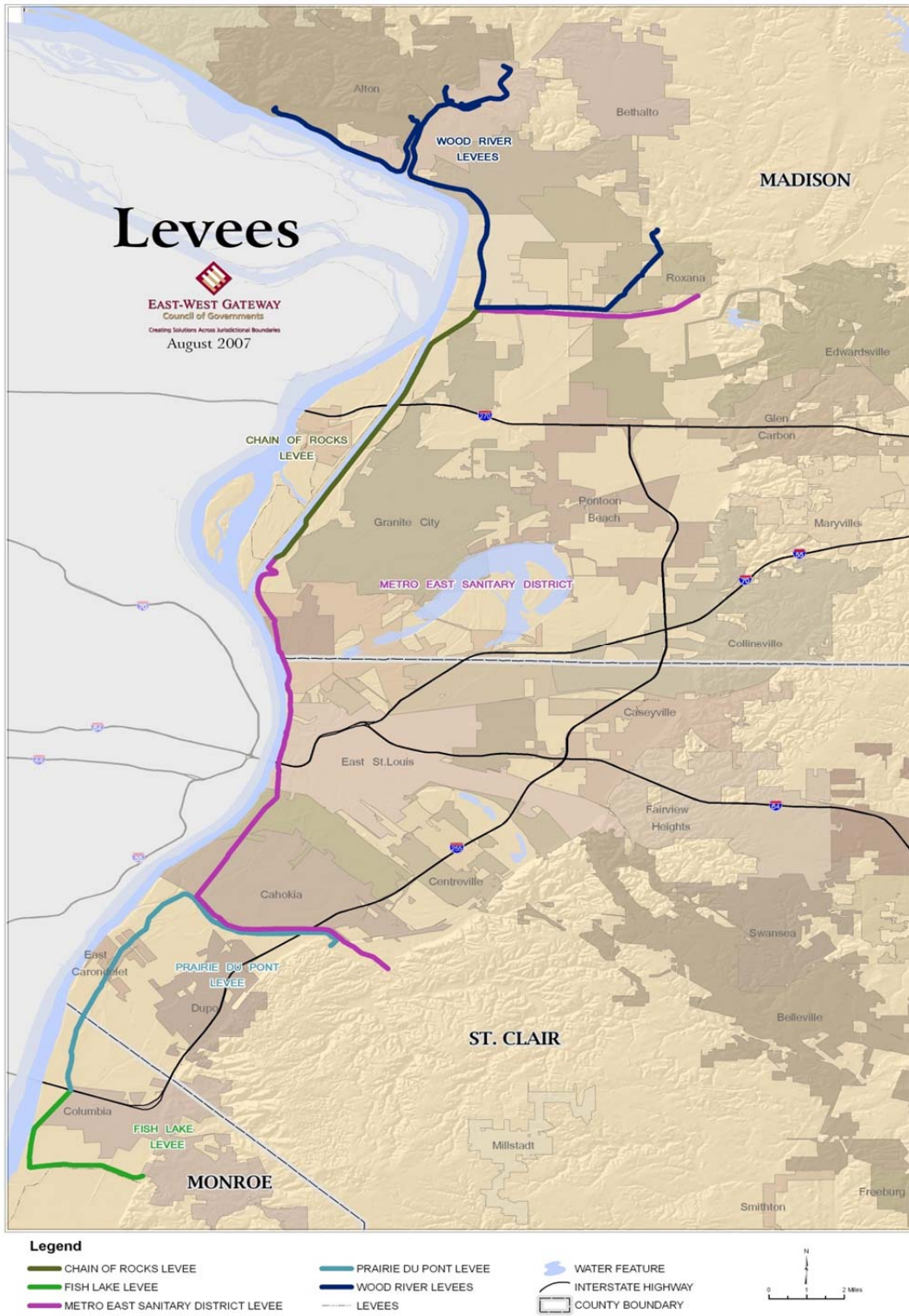
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A system of 74 miles of mainline levees protects an area called the American Bottom in Southwestern Illinois from flooding by the Mississippi River. The American Bottom is an area of 174 square miles that is home to 156,000 people and 55,000 jobs. 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 been flooded by the Mississippi River in the 70 years since the flood protection system was initially built, including during the flood of record in 1993, a 300-year event.

Mississippi River flood protection consists of five “federal” levees (see Figure 1), i.e. levees designed and built by the federal government and whose owners participate in the Corps of Engineers Public Law 84-99 emergency assistance program. The construction of the following five (5) levees was authorized in federal law:

- **Wood River levee**, operated and maintained by the Wood River Drainage and Levee District. Construction was authorized under Section 4 of the Flood Control Act of 1938, Pub. L. 75-761, with subsequent improvement was authorized under Section 1001(20) of the Water Resources Development Act of 2007, Pub. L. 110-114 (“WRDA 2007”)
- **Chain of Rocks canal, levee, and locks**, operated and maintained by the Corps. Construction was authorized under the River & Harbors Act of 1945, Pub. L. 79-114
- **East St. Louis levee**, operated and maintained by the Metro East Sanitary District. Construction was authorized by the Flood Control Act of 1936, Pub. Law 74-738, as modified by the Flood Control Act of 1965, Pub. L. 89-298, and the Water Resources Development Act of 1976, Pub. L. 94-587. Subsequent improvement was authorized under the Energy and Water Development Appropriations Act of 1988, Pub. L. 100-202
- **Prairie Du Pont levee**, operated and maintained by the Prairie Du Pont Levee and Sanitary District. Construction was authorized under the Federal Flood Control Act of 1936. Subsequent improvement was authorized under Section 102(8) of the Water Resources Development Act of 2000, Pub. L. 106-541 (“WRDA 2000”) and Section 5070 of the WRDA 2007
- **Fish Lake levee**, operated and maintained by the Fish Lake Drainage and Levee District. Construction was authorized by the Flood Control Act of 1954. Subsequent improvement was authorized under Section 102(8) of WRDA 2000 and Section 5070 of WRDA 2007

The Metro-East Sanitary District (formerly the East Side Levee and Sanitary District, originally formed in 1910) is authorized by the Metro-East Sanitary District Act of 1974, 70 ILCS 2905/. The Wood River and Fish Lake districts were authorized by the Illinois Drainage Code, 70 ILCS 605/. The Prairie DuPont district was authorized by the Sanitary District Act of 1907, 70 ILCS 2205/. The levee districts own and have primary responsibility for maintaining the levee systems (with the exception of the Chain of Rocks levee, which is owned and maintained by the Corps of Engineers).



**Figure 1 - Levee Systems**



The Southwestern Illinois Flood Prevention District Council was formed in 2009 through an Intergovernmental Agreement between the Flood Prevention Districts of Madison, St. Clair and Monroe counties as authorized by the Illinois Flood Prevention District Act of 2008, 70 ILCS 750/. The primary responsibility of the FPD Council is to plan, finance, design and build capital improvements to the levee system. The Council's principal goal is to assure accreditation by FEMA in accordance with criteria described in 44 CFR 65.10 – Mapping of Areas Protected by Levee Systems.

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 deaccredit the levee systems in our area, which is the industrial core of the St. Louis region, was based on this assertion by the Corps.

The region's leadership does not agree with the decision by FEMA to deaccredit the levee system. A number of area governments, businesses and citizens have joined to file a lawsuit challenging this decision based, in part, on the lack of any documentation of levee system deficiencies. However, given the significant economic consequences of FEMA's decision, should it stand, 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 Corps 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. The levee systems have consistently been determined to be in *acceptable* or *marginally acceptable* condition by annual and more thorough 3-year periodic inspections by the Corps.

According to its own preliminary evaluations and cost estimates the Corps suggests that it could potentially cost \$500 million or more in today's dollars to maintain the authorized (500-year) level of flood protection. Further, the schedule to make these investments would essentially be open-ended, because the federal funding is not yet available. Making assumptions consistent with typical levels of federal appropriations, the project would take forty years or more complete. 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 about the cost and schedule of the project.

Because of the uncertainty of federal funding and the complexity and time consuming nature of the USACE project development process, levee improvements will be primarily locally funded. The three affected counties have imposed a ¼% 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.

In July, 2009 FEMA issued Preliminary Flood Insurance Rate Maps for the areas protected by the Metro-East levees. Appeals of those maps were submitted by a variety of local governments during the 90-day period provided by law; all of those appeals (some were described as protests by FEMA) were denied in September, 2010.

### III. FPD Council Activities

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The FPD Council began operations in July, 2009. Since that time, the organization has completed a comprehensive inspection of the levee system, performed an economic analysis of the costs of mandatory flood insurance, provided support to local governments to appeal preliminary flood insurance rate maps, conducted a design competition to determine the most cost-effective approach to assuring compliance with FEMA standards for levee system accreditation, and sold \$94 million in bonds to pay for levee improvements. The Council's general goals have been to:

- assure compliance with FEMA accreditation standards with currently available revenue sources in five years or less; and
- minimize economic and financial hardship should the levee systems be de-accredited by FEMA

Notwithstanding the Council's strong disagreements with FEMA's decision to deaccredit the Metro-East levees and the agency's continuing efforts to overturn that decision, every effort is being made to remove all doubt about compliance with FEMA accreditation criteria. In October 2010, the Council engaged a team of engineering consultants led by AMEC Earth & Environmental to design and manage construction of improvements to the levee system. In early May, 2011 the Council received the 30% design and cost estimate submittal from the consulting team. This submittal was the culmination of about 7 months of effort involving substantial subsurface testing and analysis, discussions and review sessions with all affected parties including the levee districts and the Corps of Engineers, a careful review of many design alternatives and a value engineering review.

Based on the 30% design, the Council developed a revised financial plan to determine the best way to utilize existing revenue to generate sufficient capital funds to pay for the project. That plan was finalized in June 2011 and concluded that with a careful mix of borrowing and management of cash flow, the Council could raise upwards of \$150 million, an amount sufficient to pay for the project.

Three principal elements of the project development process have now come together: the design and cost estimate as part of the 30% design submittal, and the financial plan completed in June 2011. It is now possible to construct a project schedule. Together, these components comprise an implementation plan for the project.

The Project Implementation Plan was adopted at the July, 2011 meeting of the Board of Directors. A copy of the report is available on the Council's website at:

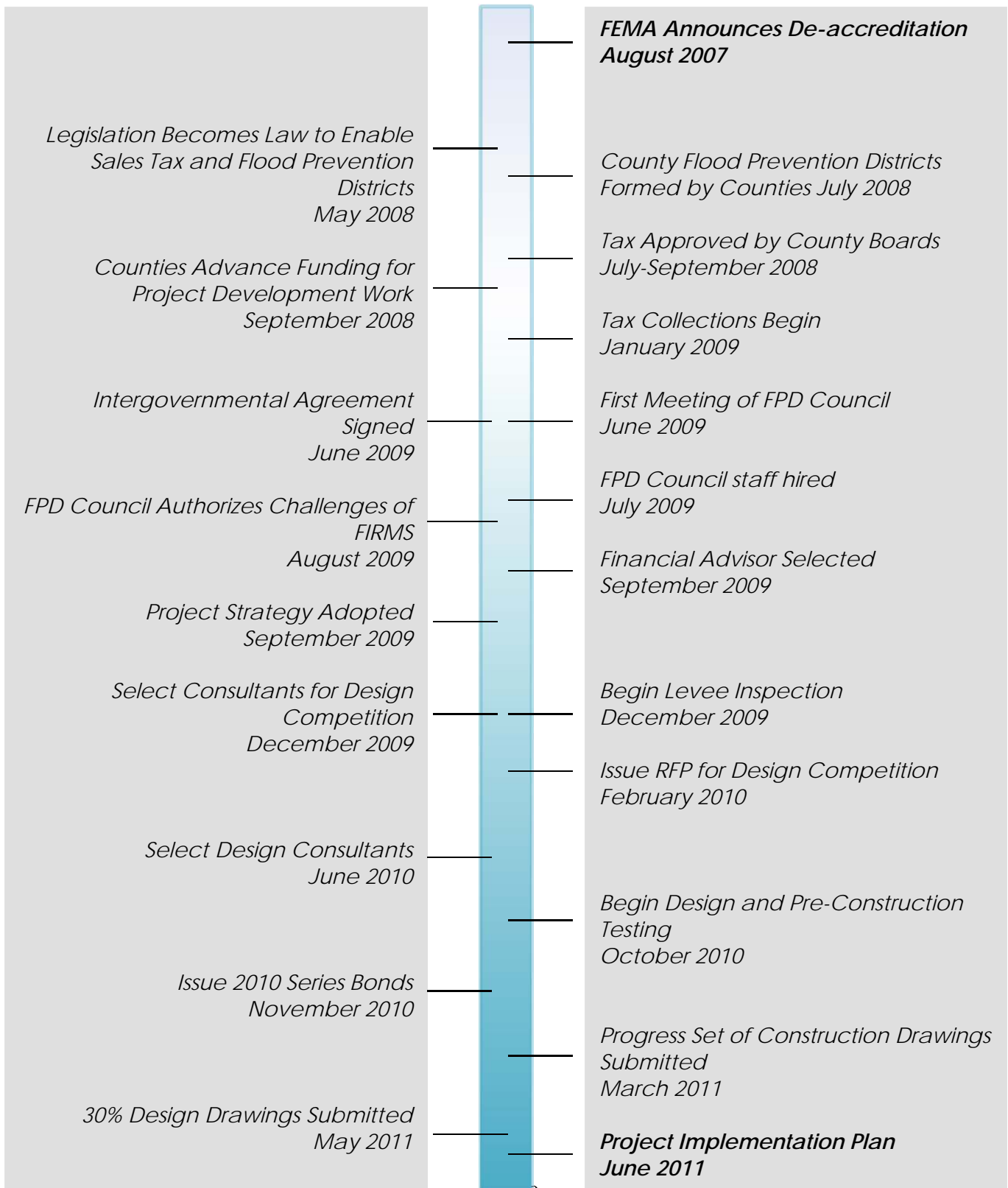
<http://www.floodpreventiondistrict.org/wp-content/uploads/2011/07/Project-Implementation-Plan-report-ver.-1.7.pdf>

In November 2010, the Council, along with a number of other local governments, businesses and individuals, filed suit against the Federal Emergency Management agency to prevent the agency from finalizing preliminary Flood Insurance Rate Maps issued in July 2009. However, in February 2011,

in response to complaints from members of Congress, FEMA voluntarily agreed to reconsider the methodology by which certain FIRMs are developed. This action effectively put the preliminary FIRMs for our area on hold. In August, the Federal District Court for the Southern District of Illinois dismissed the Council's case against FEMA by concluding that FEMA's action to reconsider the preliminary maps made the lawsuit moot. However, the judge strongly criticized FEMA in his ruling for their inconsistent and confusing statements about the mapping process, criticism that echoed many of our concerns.

As it now stands, the FEMA mapping process has been interrupted while the agency considers better methodology for developing maps, especially for those areas protected by de-accredited levees. There is no schedule for producing new preliminary maps, nor is there any suggestion that new maps would differ significantly from those issued two years ago, so the urgency of making levee system improvements is not diminished.

**Figure 2  
Project Timeline**





## IV. Financing and Budget

Table 1 is a financial summary of the Council’s activities through September 30, 2011.

Revenue from a dedicated sales tax was used to support the Council’s ongoing design and construction activities. While sales tax revenue showed substantial growth in 2009 coming out of the recession, growth has been slowed in 2010 (see Figure 3). This trend is critical, because the financial plan assumes an annual growth rate in sales tax revenues of 3%, a figure that is consistent with long-term trends.

The Council issued bonds in the amount of \$94,195,000 in November 2010. After setting aside funds for a debt service reserve and costs of issuance around \$87 million is available to fund construction of the project. Future bond issues are expected in 2013 and 2015 to complete the financing of the project. The financing plan adopted by the Council is anticipated to produce about \$151 million to pay for the project. That plan assumes that all receipts from the FPD sales tax in all three counties will be solely devoted to the project. At this point in the design process, the project is expected to consume all available funds and perhaps require additional borrowing by the affected levee districts. Table 2 summarizes estimated project costs.

**Figure 3**  
**Flood Prevention District Sales Tax Trends 2009-2011**

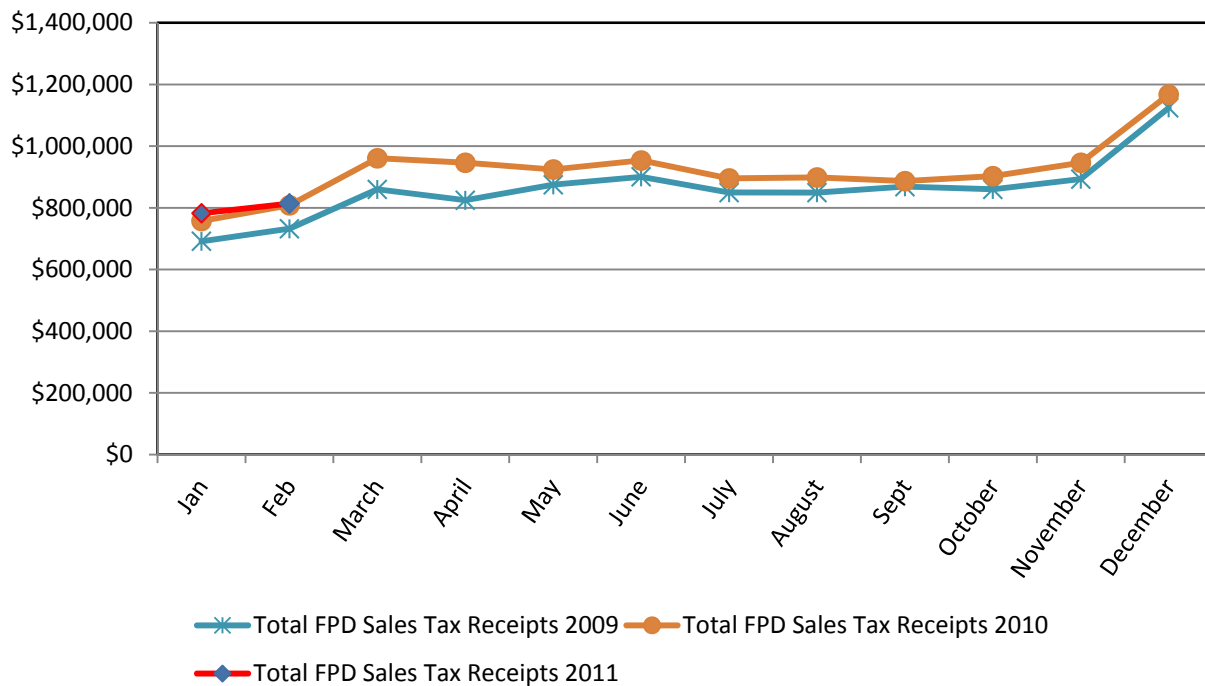


Table 1  
Southwestern Illinois Flood Protection District Council  
Financial Report  
October 1, 2011 - September 30, 2011

	Audited Expenditures October 1, 2009 thru September 30, 2010	Projected Expenditures October 1, 2010 thru September 30, 2011
Resources:		
Flood Prevention Tax	\$7,809,955	\$8,241,174
Bond proceeds	0	94,195,000
Interest Income	2,162	357,000
Other Contributions	75,921	0
<b>Total Resources</b>	<b>\$7,888,038</b>	<b>\$102,793,174</b>
Expenditures:		
Design and Construction	\$6,206,512	\$10,137,564
Professional Services	1,482,626	390,362
Reimbursement of Advance Funding	0	3,501,778
Debt Service	0	7,670,553
General and Administrative Costs	198,900	251,545
Transfer of Surplus Bond Fund Moneys to County FPD funds		3,644,245
<b>Total Expenditures</b>	<b>\$7,888,038</b>	<b>\$25,596,048</b>
Net change	\$0	\$77,197,126
Funds available from prior period	\$0	\$0
<b>Net funds available end of period</b>	<b>\$0</b>	<b>\$77,197,126</b>



## V. Conclusions, Issues and Next Steps

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Much progress has been made in the nearly two years that the Council has been in existence toward the regional goal of maintaining a high level of flood protection for the American Bottom. Doing so is a regional priority and the Council has acted with a sense of urgency in conceiving major improvements to the flood protection system. That process has now reached an important milestone. A preliminary design is done, costs have been estimated, and financing put in place. The Council has adopted some definitive goals and is now in a position to set forth how those goals will be achieved.

With regard to the critical question of the Council's capability to finance the project, the current cost estimate and financial capacity (the amount that can be raised from the FPD sales tax) are almost precisely in balance at \$150.6 million. While the analysis is sufficient to conclude that the project is fiscally feasible from existing resources, there are many variables that will affect both cost and revenue over the next five years, so the Council must continue to make every effort to reduce costs, avoid delays, and maximize potential revenues. *For this project every penny will indeed count.*

In addition to adopting the plan there are a number of critical next steps for the project:

- Continue the design process with a goal of reducing costs and any negative impacts of construction.
- Work with regulatory agencies to expedite the project permitting process.
- Refine the project schedule and better align it with the sequence of financing.
- Seek agreement from counties that all FPD sales taxes will be devoted to the project.
- See assurances from the USACE that federal funds will be directed to assist in a timely manner to focus on elements of the Council's project.
- Work with levee districts to provide for sufficient funding for ongoing maintenance of improvements and to identify capital funding to "backstop" the sales tax for funding the project.

In September, 2009 the Council adopted a process for analyzing the problem and conceiving solutions. That process has been successfully executed and is now virtually complete. With the adoption of the Project Implementation Plan in July, 2011 the project is moving toward construction. There are continuing threats to the schedule that include unfavorable weather, high water and regulatory delays. However, in the absence of unusual or unforeseen circumstances, construction will start in 2012 and could substantially conclude in 2014, with certification documentation submitted to FEMA in 2015.