



Memo to: Board of Directors

From: Les Sterman

Subject: Program Status Report for October, 2012

Date: October 15, 2012

Work continued in September and October to refine and complete the design of the project. Recognizing that our continuing dispute with the Corps of Engineers regarding underseepage controls known as “graded filters” could not be resolved quickly, and that these design features would trigger additional time consuming and costly review processes within the Corps, we “hit the reset button” on the project design in those levee reaches where graded filters had been proposed. Our consulting team has collected more primary data about subsurface conditions through additional borings, and done more sophisticated modeling to more precisely calibrate and refine the design. This effort has resulted in a proposed design that includes a combination of more traditional underseepage control elements. These will be both newly installed by the project and modifications to existing controls. The revised designs will meet FEMA standards but result in a lesser degree of flood protection than previous designs. Nonetheless the revisions will likely satisfy the Corps’ concerns and will not trigger the more extensive review that “other than minor¹” levee system modifications would require.

Most of the deep graded filters that were in dispute can be replaced by a combination of relief wells and berms. A few shallow filters will be brought up to grade, so no excavation of the clay blanket will be required. In several cases, the added data and analysis resulted in the elimination of additional underseepage controls altogether. A preliminary revised cost estimate suggests that the cost of the revised design will be consistent with the 60% design estimate produced in December 2011. The project schedule will need to be modified to reflect the time lost over the last six months in the dispute with the Corps, but all indications are that the 2015 end date of the project can be achieved. In sum, I now believe that we can produce an affordable project that will meet FEMA standards while keeping our commitment to finish the project by 2015.

Our consultant team is now back on track to complete the 100% design of the project. AMEC has been meeting with the Corps to review key aspects of pending design changes, particularly where existing Corps-installed facilities would be modified. As was previously planned, the design documents necessary for the Corps to complete the Section 408 review will be submitted

¹ “other than minor” in Corps of Engineers parlance (for some obscure reason, the Corps refuses to use the word “major”) refers to major alterations to the levee system that trigger external review processes and require approval at Corps headquarters, rather than in the District office.

in a series of packages over the next 6-9 months. The revised cost estimate and schedule will be presented at the October Board meeting.

The review of the financing schedule is underway. ButcherMark Financial Advisors has provided a first draft of modeling results that evaluate the impact of revised financing concepts, along with changes in the interest rate environment, project schedule, and funding need. The objective is to determine how much money can be raised from the proceeds of the FPD sales tax. Initial results are promising; it appears that we can increase the funding proceeds for the project, perhaps by 10-15% using the existing sales tax revenues.

A draft of the periodic inspection for the Prairie DuPont and Fish Lake levee districts has been completed by the Corps. There are several findings that could cause the condition of the affected levee system to be declared “unsatisfactory” by the Corps; however it appears that these findings can be addressed by the levee districts in short order. We will continue to work with the districts to assure that all critical repair issues are addressed as part of the FPD project.

The Corps has also presented the completed Limited Reevaluation Report for the Prairie DuPont and Fish Lake levee districts. The completion of this report will make the project eligible to receive federal funds for the design deficiency correction. However, the Corps has indicated that it is highly unlikely that funds will be forthcoming for work in these levee districts because of a low benefit/cost ratio.

Work is ongoing on the Council’s first construction contract, a small contract with Noeth Excavating Systems for restoration of culverts and trench drains in the MESD area. I have executed two change orders to this contract, the net result of which reduced the cost of the work and makes small revisions to the scope.

Discussions with the Illinois Environmental Protection Agency continue on the contents and approach of the Sec. 401 water quality permit. We have now submitted all of the information requested by IEPA so that they can process our application and take the necessary steps to begin the public review of the project. Because of staffing shortages, the time frame for the review is a potential problem that will affect our schedule, but IEPA has assured us that the project will have their full attention and that they are mindful of our time constraints.

Marks and Associates developed a draft of our minority business/workforce utilization plan. She will report on the draft at September Board meeting. Our construction management and contracting team will be reviewing the draft before we finalize it and present it to the Board for adoption.

In late September, Congressman Costello introduced HR 6450 “to facilitate and expedite the review of proposed improvements to Federal flood control projects to be constructed by local sponsors...” The primary purpose of this bill is to streamline and rationalize the Section 408 review process, especially for repairs and improvements to existing levee systems by local sponsors. Our attorneys and I have been working with our congressional staff on this bill for nearly a year and I am grateful to them for both recognizing this problem and having the patience to work through a complex and confusing drafting process to bring this bill forward. I recognize

that this legislation, were it to pass, would probably come too late to help our project, but something like this is badly needed to support more timely and cost-effective fixes to deficient levee systems across the country. I think it also signals to the Corps and others that the current Section 408 review process imposed by the Corps can be unreasonable and onerous, and the extensive delays it generates further imperils the public.

Greatest levee risk is doing nothing

Published: August 27, 2012

The U.S. Army Corps of Engineers stresses the urgency of fixing the metro-east levees. In May it classified the Metro East Sanitary District segment of the levees as at "extremely high risk" of failing in a flood.

Unfortunately, that sense of urgency isn't translating into action on the Corps part.

The Southwestern Illinois Flood Protection District has a plan to upgrade the levees to FEMA standards, put together by private engineers willing to stake their careers on its soundness. Local taxpayers took on the task because the Corps wouldn't have the money to improve the levees until years from now.

But instead of approving the plan, the Corps is demanding the addition of costly -- and maybe impossible-to-construct -- requirements.

Les Sterman of the local district estimates the Corps' inaction has already delayed the project six to eight months and has added hundreds of thousands of dollars, may millions, to its cost. Neither the local district nor the Corps can afford that.

Col. Christopher Hall, the St. Louis District commander, says that its No. 1 concern is public safety and the long-term viability of the levees. But how is leaving levees in place that the Corps admits are at risk of failing helping? The flood district's plan obviously is not everything the Corps wants, but it is superior to what we have now.

We're approaching the 20th anniversary of the devastating 1993 flood. So far our region has been fortunate enough not to experience another bad flood, but the clock is ticking.

The Corps will be held responsible by the public if the levees aren't fixed before the next big flood. The greatest risk to public safety is doing nothing.

Levee safety won't be compromised to ensure a faster process

Published: September 1, 2012

Much has been accomplished by the St. Louis District of the U.S. Army Corps of Engineers and the local levee boards to restore the full level of protection the levees were designed to provide. In the last 20 years, the Corps of Engineers has performed more than \$140 million in work in rehabilitating the levees that protect the lives and economic well-being of the metro-east.

While much remains to be done, we find ourselves in a changing landscape regionally and nationally, with a renewed emphasis on managing flood risk, thanks in large part to the efforts of the residents and leaders in the metro-east.

Since 2007, when news of FEMA's flood insurance map modernization reached the metro-east, there has been a sharp focus on the levees at the local level. The efforts of the Madison, Monroe and St. Clair counties and the Southwest Illinois Flood Prevention District Council helped reinvigorate the conversation about reducing flood risk on a national level, and made incredible strides toward that goal.

The St. Louis District team worked tirelessly to support the Flood Prevention District's efforts to meet FEMA's requirements and avoid costly increases in flood insurance. We provide real-time feedback for their engineers in the design process to avoid delays in submitting a final plan for approval. We worked to streamline our permissions process, and we continue looking for ways share in their efforts and move the project forward. We understand the sense of urgency to complete work by 2015 to reach a 100-year level of protection.

However, one accommodation we can't make is sacrificing safety. Our duty and first priority is to ensure that any work done on the levees won't increase the risk to the lives and livelihoods in the metro-east.

Our policies and processes exist to protect and improve the safety, economy and quality of life of the American people.

This is not a debate about the level of protection the levees provide. We need to be deliberate and responsible in determining whether some features being considered will hurt the integrity of the levee and put lives and communities at risk.

The use of graded filters on the FPD's draft designs has caused a great deal of concern and discussion.

These underground filters are largely untested in levees along major rivers. In the thousands of miles of levees along the Mississippi River and its tributaries, graded filters have never been used. Without being able to see where problems occur, we would be unable to use flood-fighting techniques such as in past floods. If they fail during a flood, the failure would be unforeseen and catastrophic.

The proper design of these graded filters by the FPD has been the main source of delay to their work.

The Corps of Engineers and the Flood Prevention District Council's engineering firm met to consult on these features and agreed on safety criteria in May 2012. Also included were engineering experts in the field invited by both parties. We will continue to work with the Council and its engineering firm as they develop a final plan to reach their goals.

We are also committed to continuing work toward fully restoring the levees as funding allows. Designed to withstand a flood reaching 54 feet on the St. Louis gage -- roughly a 500-year flood -- the metro-east levees protect against floods even greater than the Flood of 1993, which peaked at 49.5 feet, a 380-year flood.

In the face of the greatest flood on record in our region, the metro-east levees held. This happened through the tremendous efforts of the local residents, the levee boards and the St. Louis District team.

We continue to be a long-term partner with the levee boards as well as the communities where we live and serve.

We continue to work with the Flood Prevention District Council and their engineers through their design process and will continue to meet all of our review deadlines. Through a unity of effort, we will find the best way forward to reduce risk for the residents, businesses and communities where we live.

Col. Christopher Hall is commander of the St. Louis District, U.S. Army Corps of Engineers.

The slower Corps moves on levees, the more at risk we are

Published: September 1, 2012

It's no secret that since before the 1993 flood, the Corps of Engineers knew of significant weaknesses in the area's levee system. The real mystery is why it's taking so long to fix a serious problem that the Corps has known about for at least 20 years. I think we now know the answer to that question. We also know what to do about it. Let me try to explain.

In July 1993, the Mississippi River experienced its flood of record, perhaps a 300-year event. The levee system protected the 174-square-mile American Bottom from flooding since it was designed and built by the Corps in the 1940's and 1950's did its job, but it showed significant weaknesses suggesting it might fail in the future.

Soon thereafter, the Corps declared the levee system was suffering from a "design deficiency," a euphemism coined by the Corps so they could acknowledge their responsibility for fixing the problem.

In the more than 19 years since the 1993 flood, there has been little movement by the Corps to fix the "design deficiency." There has been some investment in repairing aged pump stations and other above-ground structures, but little to address the fundamental problem of seepage under the levee system.

While the Corps has fixed the one 10-mile stretch of the system that it owns, the remaining 64 miles of locally owned levees are traveling in the Corps' slow lane. To date, progress consists mainly of a growing number of thick reports, multiple inspections, and oft-repeated dire warnings. In 2009, the Corps declared that it would take another 30-40 years and as much as a half-billion dollars to fully address the problem. The problem that the Corps accepted as theirs has gradually become ours.

In the absence of action, the Corps and the Federal Emergency Management Agency steadily ratchet up the rhetoric used to describe the situation. Most recently, in May, the Corps announced the levee system operated by the Metro-East Sanitary District is "among those with the highest inundation risk in the USACE portfolio."

Those urgent words belie the agonizingly slow pace of progress. This situation is a continuing threat to public safety and the region's economy. 155,000 people and 55,000 jobs are at risk. To their credit, local leaders mobilized with unprecedented unity and urgency to find a local solution. An organization was formed, a funding source created, and construction plans developed, all within a period of three years. Two national

engineering firms have designed affordable improvements that will meet FEMA's standards. With another two years of construction, we can dramatically improve flood protection. If only it were that simple.

An obscure federal law, Section 408 of the Rivers and Harbors Act of 1899, tasks the Secretary of the Army with granting permission for the alteration of any levee built by the federal government if, in his judgment, it "will not be injurious to the public interest or impair the usefulness of such work." That simple and sensible policy led to hundreds of pages of internal guidance developed by the Corps to determine how and when to give that permission.

There is now an entire federal bureaucracy engaged in our levee improvement project, even though not a penny of federal money will pay for it. By their own admission, the Corps is reviewing the project as if it was a federal project, effectively meaning that time and money don't matter. As Col. Christopher Hall, commander of the St. Louis District of the Corps, said recently in describing the agency's approach to design and construction to the New York Times, "we build cathedrals."

The problem is that it takes a long time and a lot of money to build a cathedral, two commodities that are in very short supply. Between 1993, when the problem first became clear, to the middle of this century, when the Corps thinks it might finish the job, is a span of more than 50 years. We should never accept a situation that exposes our communities and our businesses to the risk of a catastrophic flood for so long.

One could argue that, with diminishing federal money to pay for basic infrastructure, the Corps would do well to encourage states and local governments to begin assuming some of those costs. Paradoxically, the Corps seems to be doing everything imaginable to make the job more difficult, more costly and take longer.

To be sure, there are smart, hard-working people working for the Corps, but they are working within an inflexible, stifling, multilayered bureaucracy that slavishly adheres to rules of their own making, even when the outcome makes little sense. Our representatives in Congress have worked tirelessly in a bipartisan, unified manner on our behalf, but it is testimony to the enduring power of the bureaucracy that they have made only small headway.

We have a plan, we have the money, and we have the passion and motivation to secure our region from flood risk. All we need now is for the federal government to say yes.

Les Sterman is chief engineer for the Southwestern Illinois Flood Prevention District Council.

Guest commentary: Five years in, cooperation remains key to recertification of Metro East levees

September 05, 2012 12:00 am • By Rich Conner



Towboats push barges south through the swollen Chain of Rocks canal north of downtown St. Louis on June 15, 2011. The area to the left is protected by the Chain of Rocks and Metro East Sanitary District levees. This photo was taken from a Gateway Helicopter Tour. Photo by J.B. Forbes, jforbes@post-dispatch.com

Last month marked an important milestone in southwestern Illinois' ongoing effort to improve the levees protecting the American Bottom flood plain. It was in August, five years ago, that the Federal Emergency Management Agency surprised the region with the announcement that it no longer considered the Metro East levees to be

adequately providing protection at the 100-year flood level. Since then, we've learned that FEMA reached that conclusion through a faulty process that did not include any specific documentation from the Army Corps of Engineers. Despite this, the announcement triggered a process that, if allowed to run its course, would declare almost all of the American Bottom a special flood hazard area, with potentially devastating economic outcomes for the St. Louis region, particularly for the 150,000 residents, 4,000 employers and 56,000 jobs protected by the levees.

Fortunately, FEMA's ill-planned action also triggered a remarkable regional response. That response was aimed at preventing impacted businesses and residents from having to purchase mandatory flood insurance or adhere to new elevation standards for building construction once the new flood maps become final. Once it became apparent that the corps' time frame of 2044 for repairs of the levees would not be in sync with the FEMA time frame for issuing its new maps, the Metro East regional leadership took command of the process, improvements and funding. With little or no assistance from

federal agencies, local and state leaders worked through the critical issues and developed a plan to improve our levees to the new federal standards.

The progress so far is a testimony to the region's ability to work together in the face of real crisis. Early successes included the creation of the Southwestern Illinois Flood Prevention District Council to facilitate continued collaboration between the three counties working together to oversee the restoration of the levees, and the authorization by Madison, St. Clair and Monroe counties of a quarter-cent sales tax dedicated to funding the levee repair work. The subsequent launch of the St. Louis Metro East Levee Issues Alliance has helped to build a growing coalition of business and civic organizations, community leaders and concerned citizens all working together to help ensure the timely completion of improvements so the levees meet new federal standards. On the legal front, the region celebrated FEMA's announcement in open court that it had abandoned its proposed flood insurance rate maps reflecting a de-accreditation of the Metro East levee systems.

Unfortunately, FEMA is back at the drawing board revamping its remapping process in order to issue its new maps in the near future, so it's imperative that the levee improvement project move forward in a timely manner. While construction began on a small piece of the \$161 million project this past June, it is now apparent that the corps' requested modifications to one key element of the proposed design will result in a design plan that cannot be implemented within the FPD Council's budget. The current lack of consensus on the design approach stems from the fact that the FPD Council designs are focused on reaching the FEMA-required 100-year flood protection mark. This will provide better protection than exists today and can be locally funded and completed by 2015. The corps' ultimate goal is to improve the levees to the 500-year standard, a project they don't currently have the funding to do. The challenge of finding a design approach that satisfies both objectives has created an impasse that has delayed the project by seven months and forced the Levee Issues Alliance to stop its countdown clock tracking the project's progress.

The FPD Council is working diligently on a plan that will receive the corps' approval and the necessary permits. We must have the highest level of priority and a commitment to a collaborative approach from the Corps of Engineers. Further delays are harmful to the economic condition of our region and prevent the levee upgrades that improve the safety of the businesses and residents of the American Bottom.

The Levee Issues Alliance has engaged all the parties involved, and we expect to find a path forward to complete this project in early 2015, protecting lives and livelihoods in the

American Bottom, and reaffirming that it is a place where businesses can invest with confidence.

Rich Conner is president of the Leadership Council Southwestern Illinois, a member-based, economic development organization representing Madison and St. Clair counties. The council administers the Levee Issues Alliance.