

2011 FLOOD – PROBLEM AREAS BEING CORRECTED

Congress authorizes \$802M in disaster relief to repair MR&T System

Buck Chute Berm & Relief Well Construction



Completed Relief Wells and Berm at Buck Chute

There were (12) major problem areas discovered during the Historic 2011 Flood that needed attention and remedial work. The Levee Board has been pushing the Vicksburg District Corps of Engineers to correct all 12 identified problem areas as soon as possible. The Levee Board lobbied Congress to provide funds to repair these problem areas. In December 2011 Congress passed an \$802 Million Supplemental Appropriation for disaster relief to repair the MR&T System following the 2011 Flood. The Vicksburg District will use this money to correct (11) of our problem areas over the next two years.



Installing Buck Chute Relief Wells

2011 - YAZOO BACKWATER LEVEE, BUCK CHUTE & ALBEMARLE RESET

In the Summer of 2011, the Corps contracted to remove and recycle the poly-sheeting from the landside slope of the Yazoo Backwater (YBW) Levee, the Corps Hired Labor Crew permanently raised the low areas up to elevation 107.0', and the Corps let a maintenance gravel supply contract which added new limestone on 7.3 miles of the YBW Levee (Sta. 0-385 YBWL).

In mid-September 2011 the Corps contracted with Phylway Construction, LLC to build a 1,700' long, 200-240' wide landside seepage berm and

install 30 relief wells at Buck Chute (Item 458L) and build a 2,500' long, 150' wide landside seepage berm at Albemarle (Item 465L). Phylway completed the Buck Chute berm and relief wells by mid-December 2011. Phylway completed the dirt work for the Albemarle berm in April 2012.

2012 - FRANCIS & ABOVE GREENVILLE BEING RESET

On July 24, 2012 the Vicksburg District received bids to install relief wells at Francis (Item 616L) and Above Greenville (Item 543L). Item 543L includes (11) 8" diameter wells at 60' depth and Item 616L includes (16) 8" diameter wells at 78' depth. The Levee Board acquired the right-of-way for both of these problem areas in early 2012.

2013 & 2014 - FUTURE RESET ITEMS TO BE BUILT

The Levee Board Engineering Staff obtained rights-of-entries from all the landowners in the remaining problem areas so that the Vicksburg District could perform soil borings and survey these areas to help design permanent solutions. In 2013, the Vicksburg District plans to build a berm or install relief wells at Avon, install relief wells at Leota, and plans to build a landside seepage berm at Tara. In 2014, the Vicksburg District plans to install relief wells at Greenville, Lake Jackson and Tallula. ■

Albemarle Berm Construction



Clearing



Berm Construction

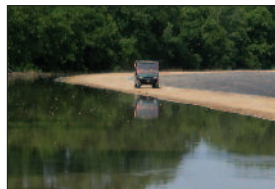


Berm Construction



Completed Berm

Yazoo Backwater Levee Reset



Water within 4" of the top of the YBW Levee in 2011



Removing Poly Sheetting



Permanently Raising Low Spots



Turbing Landside Slope

MLB vs. EPA Lawsuit

5th Circuit Court of Appeals rules against the Levee Board Yazoo Backwater Project is officially stopped

The Vicksburg District officially released the Final Report for the Yazoo Backwater (YBW) Project on November 16, 2007. On February 1, 2008, the Environmental Protection Agency (EPA) wrote a letter notifying that they were going to use their authority under Section 404(c) of the Clean Water Act to veto this project.

The Levee Board repeatedly told EPA that the YBW Project was exempt from a 404(c) veto because it conforms to a Section 404(r) exemption. EPA said that the 1982 EIS was never properly submitted to Congress. EPA claimed it could not find the transmittal letter to Congress. Therefore, EPA claimed that the YBW Project was not exempt from an EPA 404(c) veto because it did not conform to all the requirements for a 404(r) exemption.

On Sunday, August 31, 2008, the day before Labor Day, EPA officially vetoed the Yazoo Backwater Project.

A few days later on September 5, 2008, the Levee Board received the results of a FOIA which revealed transmittal letters dated March 28, 1983 in which the Corps



officially transmitted the 1982 EIS to Congress. These are the very documents that EPA claimed that the Corps did not have! EPA rushed to veto the YBW Project before we got this FOIA information!

The only option left for reviving the Yazoo Backwater Project was to sue EPA. The YBW Project should have been exempt from an EPA Section 404(c) veto by Section 404(r). Given the huge expense of a lawsuit against EPA and the resources of the Federal Government, the Levee Board contacted Pacific Legal Foundation (PLF) to engage their help with the lawsuit. PLF agreed to take the case and a Complaint was filed against EPA on August 11, 2009. Private environmental groups National Wildlife Federation, Mississippi Wildlife Federation, Environmental



Defense Fund, Sierra Club, Gulf Restoration Network and American Rivers all intervened on behalf of EPA in this lawsuit.

Unfortunately on March 28, 2011 Federal Judge Sharion Aycock ruled against the Levee Board. The Levee Board and PLF reviewed the ruling and decided that grounds for an appeal existed. A Notice of Appeal was filed on April 26, 2011. The 5th Circuit Court of Appeals heard oral arguments on February 9, 2012. Unfortunately on March 6, 2012, the 5th Circuit Court of Appeals ruled against the Levee Board.

During the April 4, 2012, Board Meeting, the Board discussed the future of this lawsuit. All of our lawyers agreed that this lawsuit was over. There was no reasonable shot of an appeal to either the 5th Circuit Court of Appeals or the U.S. Supreme Court. The Board

decided to stop the litigation against the EPA over the Yazoo Backwater Project.

Unfortunately, if the Yazoo Backwater Project had been in place in 2008, 2009 and 2011, the \$220 million project would have prevented \$257.5 million in agricultural damages. Every backwater event in the future would have escalated into additional savings.

In 2007 during the 404(c) veto process EPA repeatedly stated that they were vetoing the pumps because they believed there was a less environmentally damaging project for the backwater flooding situation. Unfortunately, EPA has never suggested any alternative. The Corps of Engineers does not know of a viable solution for the backwater flooding that doesn't include a pump.

After being promised flood protection 71 years ago in 1941 when the Eudora Floodway was removed from the MR&T Project, the Mississippi South Delta continues to be under the continuous threat of backwater flooding while Arkansas and Louisiana enjoy greater flood protection with all their pumping plants in place. ■



Historic Highwater Markers Installed & Dedicated



Greenville City front



Vicksburg Floodwall

GREENVILLE CITY FRONT

On Friday April 20, 2012, Mississippi Levee Board Commissioners and Staff held a small dedication ceremony for the installation of Permanent Highwater Markers at the Greenville City Front. This preceded the 85th anniversary of the 1927 Flood by one day. The markers came about from discussions to commemorate the passage of the Epic 2011 Flood on the Mississippi River.

Working with Tim Hovas, owner of New South Marine, a design was developed for the markers. Hovas and his staff manufactured the steel plate markers using a water jet cutter. The Levee Board Crew, with assistance from Clint Mixon, Mixon Concrete Construction, installed the markers on April 12th.

The markers show the Greenville Gage reading for Flood Stage; the 1927,



1937, 1973, 2008 and 2011 historic highwater events, and the Project Design Flood.

The historic stages are also shown by markers installed on the southwest corner of Applied Technologies building at Central Street at the foot of the levee.

The Levee Board appreciates the help from Tim and Clint in getting this project done by donating their time and expertise to the Levee Board. The Board also appreciates Applied Technologies for allowing the installation of the landside markers.

VICKSBURG FLOODWALL

The City of Vicksburg hosted a highwater marker dedication on May 19, 2012 – the one year anniversary of the 2011 Flood crest at Vicksburg. The 2011 Flood highwater mark was added to the Floodwall in Vicksburg. ■

Levee Ratings, Certifications and Flood Map Revisions

Levees will be Certified

LEVEE RATINGS

In 2005 (and every year before that) our levees were rated “outstanding.” In 2006 the Corps changed the rating system and our levees were rated “acceptable.” Under the new rating system this was the best we could get. In 2009 we got a “minimally acceptable” levee



Review of New Flood Maps

rating for the Mainline Mississippi River Levee (MRL) because of underseepage. Underseepage happens under every levee therefore every levee will fail to get an “acceptable” rating. Now in 2011 new Corps regulations called for the levee to be evaluated for underseepage with water to the top of the levee. The Mississippi River Levee is designed for the Project Design Flood and then an additional 3' of freeboard. Water is not predicted to ever get to the top of the levee. Regardless of this fact, the Vicksburg District is forced to give our Mainline Mississippi River Levee (MRL) an “unacceptable” levee rating because of underseepage.

In the past few years the Levee Board has done everything to comply with its assurances of general maintenance and have also significantly improved our levees by enlarging, building seepage berms and installing relief wells. We also successfully passed the Epic 2011 Flood which was a multi-hundred year event. At the same time, because of technical issues beyond the Levee Board's control and jurisdiction, the Corps of Engineers has lowered our rating from an “outstanding” a few years ago to “unacceptable.” The Levee Board has been assured that this “unacceptable” levee rating will have no effect on Levee Certification or Flood Insurance.

FLOOD MAP REVISIONS

The Federal Emergency Management Agency (FEMA), the Mississippi Emergency Management Agency (MEMA) and the Mississippi Department of Environmental Quality (MDEQ) have been working on a Flood Map Modernization Program which has updated the Flood Insurance Rate Maps (FIRM) for most of the counties in the Mississippi Delta. The Levee Board engineering staff worked with these agencies during this process by attending scoping meetings and supplying data and information to be incorporated in the new FIRM Maps. The new Digital Flood Insurance Rate Maps (DFIRM) have been issued and the effective dates are: Issaquena County - February 16, 2012; Sharkey County - March 2, 2012; Humphreys County - March 15, 2012; and Washington County - May 2, 2012.

LEVEE CERTIFICATION

In the spring of 2010, FEMA requested that the Board of Mississippi Levee Commissioners



Levee Certification Meeting

(as Levee Owner) and the Counties (as Community CEO) sign a Provisionally Accredited Levee (PAL) Agreement which states that the levee provides protection from the 1-percent-chance flood, commonly referred to as the 100-year flood. The Levee Board staff obtained all signatures and requested that the Vicksburg District perform a Levee Certification for the Mainline Mississippi River Levee, the Brunswick Extension Levee, the Yazoo Backwater Levee and the Greenville Harbor Dike. All these levees were built as part of the Mississippi River & Tributaries Project. The Corps had two years to complete the Levee Certification. Levee Certification requires that our levee system contain a 100-year flood plus 3' of freeboard. It is interesting to note that our entire levee system successfully passed the 2011 highwater event which was 3.2' above the 100-year flood. The Corps will be able to certify the Mainline Mississippi River Levee later this year once the relief wells are installed at Francis and Above Greenville. The Corps will be able to certify the Yazoo Backwater Levee later this year once several bank stabilization projects on the Yazoo River are completed and some structures are inspected. ■

2011 Annual Bus Inspection



Members of the 2011 Annual Levee Inspection take a photo in front of Harlow's Casino

On November 16, 2011, the Mississippi Levee Board hosted its Annual Levee Inspection. This year's trip inspected the middle portion of the levee system starting at the Buck Chute Berm & Relief Well Project on the Brunswick Extension Levee and proceeding north on the Mainline Mississippi River Levee including the Albermarle Berm Project and Items 468L & 474L Levee Enlargement Projects. Lunch was served at Harlow's Casino near Greenville, MS. ■

2012 Levee Slide Repairs



The Vicksburg District's Hired Labor Crew is working on repairing slides within the Mississippi Levee District. A total of 23 slides have been located. The Hired Labor Crew has repaired all 10 slides in Bolivar County and is currently working on slides in Washington County. Most slides have been repaired by mixing lime with the material to change the property of the soil and repacked into the levee structure. ■

Board Meeting Recaps

OCTOBER 2011

The Board of Mississippi Levee Commissioners took the following action at the October 17, 2011, regular board meeting: authority was given to advertise for worker's compensation insurance; awarded purchase of tracked skid steer loader and trailer to Equipment, Inc.; awarded sale of surplus equipment, 2 Case tractors, to Deanco Auctions; concurred with permit issued to Twin County Electric for the temporary relocation of a power line at Albemarle; November 6, 2011, was set as the date for annual levee inspection trip; received report from the Chief Engineer on all ongoing projects in the Mississippi Levee District.

JANUARY 2012

The Board held their regular board meeting on January 9, 2012, and took the following action: reviewed bids and awarded Worker's Compensation Insurance to South Group

Insurance; authorized advertisement of bids for Business Auto/Public Officials & Employees/Liability/ Contractors Equipment Insurance, chemicals, vehicles and fence construction; concurred with permits issued to Twin County Electric for a power line serving Enbridge Energy at Myers Road, and to Ed Brunini for a cabin at Ziegler Rd.; authorized a delegation to the MVFCA Congressional Meetings March 5-7 in Washington, D.C. to discuss FY 2013 Appropriations for Corps projects in the Mississippi Delta; and received status reports on all the ongoing projects in the Mississippi Levee District and meetings attended.

APRIL 2012

The Board held their regular board meeting on April 4, 2012: reviewed bids and agreed to accept low bids on chemical purchases for next 12 months and awarded general liability, automobile and property insurance to South Group Insurance and a 1-



Ginger Morlino swearing in Jimmy House, Roy Nichols, and Fred Ballard

ton diesel service truck and a 3/4-ton crew cab pick-up truck to Kossman's; authorized advertisement of bids for helicopter application; and received status reports on all ongoing projects in the Mississippi Levee District and meetings attended.

JULY 2012

The Board took the following action at the July 9, 2012, regular board meeting: hosted a public hearing on the proposed ad valorem tax increase; adopted 2012-2013 budget; set ad valorem tax rate of 2.90 mils; received Chief Engineer's Annual Report on the levee, interior drainage and on all

ongoing projects in the Mississippi Levee District; accepted bid on helicopter application work by Provine Helicopters; authorized a delegation to the MVFCA Annual Congressional Meeting September 18-19 in Washington, D.C. to discuss FY 2013 Appropriations for Corps projects in the Mississippi Delta; authorized a delegation for the National Waterways Conference September 19-21 in Tunica, MS; and received status reports on all ongoing projects in the Mississippi Levee District and meetings attended. ■

Staff Profile:

Kenny Nelson

Levee Board Maintenance Crew Operator

Mississippi Levee Board Maintenance Crew Operator Kenny Nelson has been with the Levee Board since August 27, 2008. He came on as an experienced equipment operator having worked previously for Bolivar County as a road grader operator. He immediately stepped into the maintenance crew in that capacity. Kenny has since branched out helping the mowing crew and operating bulldozers as well.



He and his wife, Patricia Harris Nelson are the parents of a 7 year old son, Kye. Patricia is a special needs teacher at Riverside High School. Kenny's spare time is spent fishing and playing softball for the Rosedale Blazers and following sports. ■

Kenny is a native of Scott, Mississippi, and attended school in Benoit and graduated from Rosedale High School, where he quarterbacked the football team and played short-stop on the baseball team.

2012 LEVEE BOARD

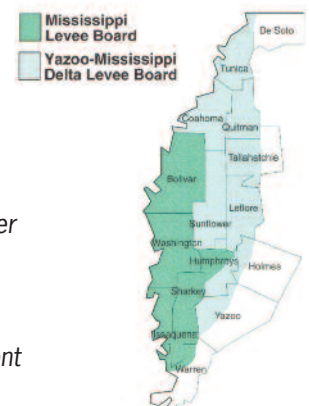


COMMISSIONERS:

Fred A. Ballard, Jr., President, *Washington County*
Kenneth Rodgers, Vice-President, *Humphreys County*
James W. House, Jr., *Bolivar County*
Nott Wheeler, Jr., *Bolivar County*
Roy Nichols, *Issaquena County*
Hank Burdine, *Washington County*
Paul Hollis, *Sharkey County*

STAFF:

Peter Nimrod, *Chief Engineer*
Robert M. Thompson, *Assistant Engineer*
Charles S. Tindall, III, *Attorney*
Judy B. Ross, *Treasurer*
Ginger Morlino, *Secretary*
Patrick Bolls, *Maintenance Superintendent*
Rick Boyd, *Engineering Technician*



Levee Enlargement Projects

Work continuing despite limited funding from Congress

Work is progressing on the levee enlargement and berm projects in the Mississippi Levee District. The Corps has completed 32.0 miles of levee and currently has another 8.1 miles under contract of the original 69 miles of deficient levee. Item 474L, a 3.4 mile conventional levee enlargement project which ties into MS State Highway 465 on top of the levee, is 99% complete. Item 468L, a 4.7 mile conventional levee enlargement project is 65% complete. This item is on the northern portion of MS Hwy 465 to Goose Lake Road. Item 463L, a 2.7 mile conventional levee enlargement project, was scheduled to be awarded last Spring but the advertisement was cancelled when Congress did not provide enough money for the MR&T Project. The



Levee Board has obtained all right-of-way for this item of work. Item 463L is scheduled for advertisement in September 2012. ■

Levee Enlargement Project Update:

Completed Work - 32.0 miles
 Items 477L, 488L, 496L & 502L
 On-going Construction:
 Item 474L - 3.4 miles - 99% Complete
 Item 468L - 4.7 miles - 65% Complete
 Future work remaining - 28.9 miles



2011 Gravel Supply Contract

15.7 miles of new limestone for levee



The Vicksburg District Corps of Engineers provided \$769,000 for maintenance gravel along three reaches of the Mississippi Levee District. One reach was on the Mainline Levee in Washington County from stations 3552 - 3790 (GHD to Lower Lake Ferguson Road). Another reach was in Issaquena County on the Yazoo Backwater Levee from Sta. 0 to 385 YBWL. The last reach was the end of the Brunswick Extension Levee from Sta. 647 to 682 BEL in Warren County. We again used limestone for the surface material. This annual program allows us to plan ahead for areas that need maintenance and will assure that



we have adequate access for flood fight activities in the event of a high water. Also following the Epic 2011 Flood the Corps put limestone down from Sta. 8550 to 8590 MRL and Sta. 0 to 129 BEL (Brunswick to Buck Chute) in Warren County at Eagle Lake. This was due to the roadway damage caused by the dump trucks and heavy equipment traveling the levee from Eagle Lake to Buck Chute during the 2011 Flood. ■

Steele Bayou Sedimentation Reduction Project

Phase VI almost complete



The Steele Bayou Sedimentation Reduction Project was started in 2007 and includes the installation of grade/water control structures (flash board riser pipes) at head-cut sites along Steele Bayou. These structures have enhanced property and keep Steele Bayou from receiving too much sediment which is bad for flood control and water quality. This project does not cost the landowner anything but they have to supply borrow material from their spoil bank to cover the structure. Phases I through V are now complete and include 45 sites on Steele Bayou, 10 sites on Main

Canal and 1 site on Black Bayou. Phase VI is 99% complete and includes 4 sites on Steele Bayou, 2 sites on Main Canal and 3 sites on Black Bayou. This is a great success story for minimizing erosion and keeping sediment out of Steele Bayou thereby helping flood control and at the same time improving water quality. ■

Steele Bayou Sedimentation Reduction Project Update:

Completed Work:
 Phases IV - 56 sites
 On-going Construction:
 Phase VI - 9 sites - 99% Complete

2011 Helicopter Application

In 1950, the Mississippi Legislature authorized the two (2) Mississippi Delta levee boards to participate as local sponsors of Corps of Engineers projects within the Yazoo Basin. The Corps of Engineers began work on the Big Sunflower River & Tributaries Project in 1947. This project included channel improvements to over 700 miles of interior streams located within the Mississippi Delta. These streams provide the outlet for flood water in the Delta. The Mississippi Levee Board is responsible for minor maintenance for 350 miles of interior streams within the Mississippi Levee District.

To perform this much needed maintenance, the Mississippi Levee Board contracts with a helicopter applicator to spray a portion of the interior streams each year. A mixture of aquatic herbicides is sprayed on the underbrush and privet that is encroaching into the required clear width of the channel. This required clear width must be maintained to ensure the streams have adequate



flood storage and passage capacity.

This year the Mississippi Levee Board treated 155.4 miles of its interior streams. This included 1,200 acres of interior streams located primarily in the southern half of the Mississippi Levee District. Provine Helicopters sprayed on October 3-4 and 7-11, 2011. Streams treated this year included Steele Bayou, Big Sunflower River, Little Sunflower River, Dowling Bayou, Ditchlow Bayou, Twin Lakes and Valewood Ditch. ■

Levee Board Attends Meetings in DC

Annual meeting with the Mississippi Congressional Delegation seeks appropriations for flood control projects and provides ongoing project updates



The Mississippi Levee Board traveled to Washington, D. C. and met with the Mississippi Congressional Delegation during March 5-7, 2012. This annual trip provides the delegation with a status update of ongoing flood control projects in the Mississippi Delta and it is an opportunity for the Levee Board to discuss funding requirements for U.S. Army Corps of Engineers projects in the Mississippi Delta.

During the visits with the Congressional Delegation, Chief Engineer, Peter Nimrod provided updates on the existing Mainline Mississippi River Levee Enlargement & Berms project, the impact of the 2011 Flood and the status of the lawsuit against EPA over the Yazoo Backwater Project. Funding requests for U. S. Army Corps of Engineers projects within the Mississippi Delta were presented to the Delegation. ■



Senator Thad Cochran



Senator Roger Wicker



Congressman Bennie Thompson



Congressman Alan Nunnelee

FY 2013 Appropriations

\$375M needed for the MR&T Project for FY13

The President's FY 2013 Budget released February 13, 2012 had only \$234M for the Mississippi River & Tributaries (MR&T) Project. Unfortunately, on April 18th the House Appropriations on Energy & Water Subcommittee provided only \$224M for



Senator Cochran

the MR&T Project. However, on April 24th the Senate Appropriations on Energy & Water Subcommittee provided \$253M for the MR&T Project. **The Corps needs a \$375M annual appropriation for the MR&T Project to fully fund all of our much-needed flood control projects.**

In FY 2010, \$340M was appropriated for the MR&T Project. In FY 2011, following Congress' decision to ban earmarks and Congressional adds, only \$263.9M was appropriated for the MR&T Project. In FY 2012, only \$252M was appropriated for the MR&T Project plus an additional \$802M for disaster relief following the Epic 2011 Flood.

MR&T Project Appropriations

FY 2010	\$340M
FY 2011	\$263.9M
FY 2012	\$252M + \$802M in disaster relief for 2011 Flood
FY 2013	\$234M (President's Budget)



The MR&T Project protects over 4 million people living in the Mississippi River Valley. Since 1928 the MR&T Project has cost 13.9B and has prevented \$478.3B in damages. The MR&T Project has a 34 to 1 return on each dollar invested! It is a shame that Congress continues to neglect and ignore one of the most beneficial and useful projects in American history. ■

2011 Flood versus 2012 Drought

Record Highs in 2011, Record Lows in 2012

What a difference a year makes!


Photo credit: AP Photo/Rogelio V. Solis



Barges parked on side of Mississippi River due to low water and navigation problems



The Epic 2011 High Water Flood along the Mississippi River was caused by historic rainfall events which were 6 to 10 times normal precipitation in April 2011. In stark contrast, the 2012 Low Water on the Mississippi River has been caused by a severe drought over the heartland of America which was 5% to 25% of normal rainfall in April 2012. This drought has continued over the summer causing severe damage to crops in the mid-west. Our area has enjoyed an above average crop yield. Unfortunately, the record low Mississippi River is causing problems with navigation. Ports along the River are having trouble because their harbor entrances have filled in with river sediment and Congress didn't provide enough maintenance dredging funds to the Corps of Engineers to keep the ports entrances open. Ports that have remained open are having to light-load barges. Tow boats and barges are running aground in the middle of the River. The Corps is performing emergency dredging to keep the River navigable. Unfortunately, this is causing severe delays, one-way traffic and periodic shut-downs on the River. The record low water stage for the Greenville Gage is 6.7' in 1964. As of press time the Greenville Gage is at 6.9'. ■



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Senate

COMMENDING MISSISSIPPI LEVEE BOARDS

Mr. COCHRAN. Mr. President, a year ago my State of Mississippi suffered one of the worst disasters in our history when the Mississippi River and its tributaries were confronted with record flood levels that threatened the well-being of residents and property over much of our State. The 2011 flood put our people and flood control structures to the test. Federal, State, and local entities worked heroically to prevent this disaster from becoming an outright catastrophe. I would like to especially commend the Mississippi Levee Board and the Yazoo-Mississippi Delta Levee Board for their impressive leadership during the flood and for taking the necessary actions to protect our population and to limit flood damage.

The Mississippi Levee Board is responsible for operating and maintaining a roughly 212-mile levee system along the river, as well as 360 miles of interior drainage streams. The Yazoo-Mississippi Delta Levee Board maintains 98 miles of mainline levees and 18 miles of backwater levees. Each board has worked efficiently and effectively with the U.S. Army Corps of Engineers to reduce the threat of high water and flood damage.

The great flood of 2011 reminded us of the importance of diligence, preparation, and cooperation to ensure that our levees remain strong and that the lives and property in our State are protected.



The Vicksburg Post

MAY 21, 2012 • 50¢ WWW.VICKSBURGPOST.COM EVE

LOW, LOWER, LOWEST?



A towboat pushes barges passes under the Interstate 20 and U.S. 90 bridge on the Mississippi River Tuesday morning.

River levels could make barge navigation dicey

The Vicksburg Post

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Mississippi River shut down

103 vessels on hold north, south of 11-mile stretch near Greenville



Back In Time: Mississippi River Cut-Offs

Courtesy of MSLB Engineer W.E. Elam

The cut-offs on the Mississippi River were built in the 1930's. These cut-offs shortened the Mississippi River by ~170 miles. This work increased the river velocity, increased the efficiency of navigation, and lowered flood stages. Several cut-offs in the Greenville, MS area (called the Greenville Bends) created Lake Ferguson – the largest slack water port on the Mississippi River between Cairo, IL and Baton Rouge, LA. Lake Ferguson was named for Gen. Harley B. Ferguson who was the President of the Mississippi River Commission from 1932 to 1939 and had pushed to get all the cut-offs built.

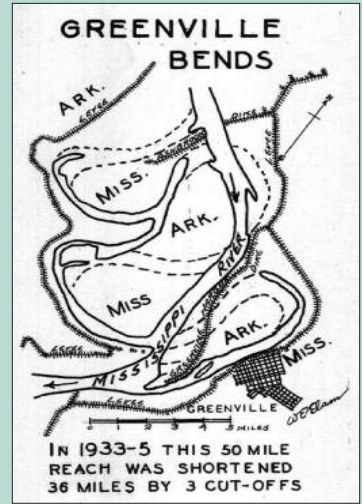
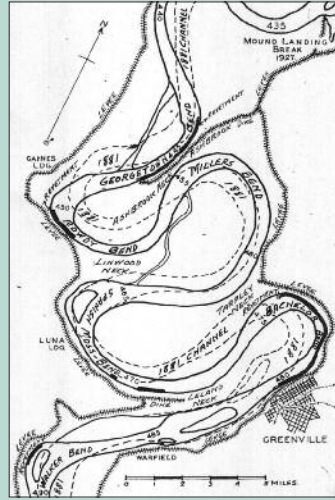
Unbelievably, these cut-offs would not have been built without the persistence of William Earle (W.E.) Elam, at that time an Assistant Engineer for the Mississippi Levee Board. In 1927 Elam first pushed the idea that cut-offs would help lower the Mississippi River stages follow-



W.E. Elam

ing the tragic 1927 Flood. At that time, there was a long-standing belief that cut-offs would not lower stages and would create bank caving and navigation problems. Through Elam's efforts, a laboratory model was created in Vicksburg in 1930 and tests proved that cut-offs would in fact lower stages. Elam recounts this struggle for cut-offs in his book "Speeding Floods to the Sea" published in 1941. In fact, in 1941, Elam was promoted to Chief Engineer of the Mississippi Levee Board.

These cut-offs proved their worth during the Epic 2011 Flood. While Mississippi River stages in Missouri were setting new record highs and new records were set in Vicksburg and Natchez, the Greenville Stage was actually 1.2' lower than the 1927 Flood Stage even though the 2011 Flood carried 26% more water than in 1927. This lower stage was the direct result of the cut-offs as suggested and pushed by Elam. ■



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