



**US Army Corps
of Engineers®**

Little Rock District

BUILDING STRONG®

Project Update

September 2011



- *Entire towns spared from flood*
- *Residents applaud Corps efforts*
- *Using “triage” to reduce risk*

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Spring 2011 flood overview

District lakes captured four million acre-feet of floodwater and prevented numerous towns from being inundated. But there was a cost to this public infrastructure, and now the district is dealing with damaged facilities in the aftermath.....Page 3



Rangers monitor levees

District park rangers helped local communities protect their levees during spring 2011, which spared entire communities from the ravages of flooding page 5



On the cover

Quality Assurance Representative Carroll Osburn monitors repair work on Table Rock Dam. The \$180,000 emergency repair was necessary because heavy rains caused surface “skin” slides of topsoil that covers the dam’s embankment during the spring floods.



Little Rock District map

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Project Update

Project Update highlights top Little Rock District issues in Missouri and Arkansas. If you have questions, contact Randy Hathaway, Little Rock District Deputy District Engineer for Project Management, at (501) 324-5053. For more information, visit our web site at www.swl.usace.army.mil.

Floods happen quickly during spring rains



Levee Program Manager Elmo Webb helps Grubbs, Ark., emergency operation officials set up a temporary levee to protect houses from the rising Cache River. The work was effective, and the levee held through the crest.

The rain slowed in May, but not before setting off a chain of events that will go down in history. As flood crests gradually took shape on the Mississippi River in what some commentators referred to as “slow motion,” Little Rock District personnel had little more than minutes at times to respond to developments on the White River basin.

Little Rock District operates six flood damage reduction lakes in the White River basin, which drains 28,000 square miles across a swath of southern Missouri and Arkansas before emptying into the mighty Mississippi. These lakes work in conjunction with downstream levees to reduce flood damage. The dams that form these reservoirs are built across mountain valleys where rain runoff plunges downhill. That is why when it happens, it happens fast.

The first sign of impending trouble came Thursday, April 21 when Mike Biggs, chief of Little Rock’s Reservoir Control Section, alerted several district personnel.

“As of noon today, NOAA is forecasting significant rainfall for the next five days... If rainfall materializes as predicted we will transition from minor drought conditions to flooding in some parts of the district...”

The forecast called for 3.5 to 11

inches of rain in the White River basin. Rain began falling over the weekend. By Easter Sunday, it appeared spillway releases might be necessary soon at Table Rock Dam. Personnel began notifying local emergency management officials.

The Hydraulics and Technical Services Branch, including the Reservoir Control Section, Hydrology and Hydraulics Section, Survey Section and Programs Section, swung into high gear.

“Each section went into emergency response mode in order to respond to the heavy rainfall and rising lakes and rivers,” Biggs said.

It was still raining, and more rain appeared in the forecast for coming days.

The Public Affairs Office ramped up efforts and issued more news releases Monday, April 25. These contained public safety tips and cautioned people in low areas below the dams to consider moving belongings, livestock and equipment to higher ground ahead of time. People were urged to coordinate with local officials. Depending on the rain’s intensity, the public was cautioned there might be less than an hour’s notice if large spillway releases became necessary.

It appeared Clearwater Dam in southeast Missouri might fill to capacity in coming days and crest above the overflow spillway of this high risk dam.

A contingent from the district office left early Friday morning to meet with emergency management officials and stakeholders at the Clearwater Project Office. Meetings with stakeholders and elected officials were held at various locations where the levels of other lakes were rising as well.

Those and many other precautions proved worthwhile. Property was spared, and lives were likely saved. By May 6, up to 22 inches of rain had fallen in



Little Rock District Commander Col. Glen Masset (right) and Clearwater Lake Operations Manager Randall Devenport prepare for a stakeholders meeting April 29 as water was rising in the lake.



Rodney Raley, chief of natural resources at Table Rock Lake, talks with visitors at Table Rock Dam. During the spring floods, Table Rock Dam released water at a rate of about 68,000 cubic feet per second. This drew many onlookers.

large portions of the White River basin. Homes were inundated in the floodplains downstream. At Clearwater, the lake crested just inches below the rim of the overflow spillway.

Steve Bays, an engineer in the Reservoir Control Section, said the White River hit its highest crest at Newport (34.17 feet) since the first few lakes in the system were brought online about 60 years ago. By comparison, the stage at Newport topped that mark four times in less than 30 years from 1916 to 1945 before the system of lakes

was in place.

Without those six lakes, flows at Newport would have been more than 700,000 c.f.s. That much flow has never been recorded there. It would have overtopped all the levees from Newport to Clarendon. Water would have spread out to close more highways, flood more homes and businesses, and inundate more cropland all the way down the White River basin. This “spreading out” would have slowed flow rates. Nonetheless, additional floodwater would have reached the Mississippi River and added to flood

woes there.

Since they were constructed, those lakes and levees have prevented more than \$1 billion in flood losses. From October 2010 through June flood damage prevented by the White River projects was \$100 million, double what was prevented in FY10.

To help ensure success in downstream areas, the district provided flood fighting materials like sandbags, pumps and other supplies to local governments and levee boards. More than 388,300 sandbags were issued to local governments, four pumps were issued, and 2,900 feet of HESCO was used to build temporary levees.

“The district also provided technical assistance to the levee boards by evaluating and inspecting the levees, helping them decide how to protect the levees, and how to minimize damage to the levees,” Tony Hill, Little Rock’s chief of Emergency Management, said.

Bull Shoals and Norfolk lakes will not be back into their conservation pools until the beginning of October. It has taken months to evacuate the 4 million acre-feet of floodwater captured and held in the White River System lakes.

And all of this flood fighting comes with a price. Many district parks were flooded, and a number of them remained flooded throughout the recreation season. As waters receded, the damage to these facilities became evident.

With our Operation and Maintenance budget scheduled to decline in FY 12 and beyond, we are concerned that we will be unable to repair all the damage and reopen all the parks next year. We have some very tough decisions facing us during fiscal year 2012.

District balances infrastructure needs, shrinking budget

Significant spring flood damage to Little Rock District parks and navigation infrastructure, a growing maintenance backlog and the prospect of a shrinking O&M funding reduction are converging to create special challenges in the coming fiscal year.

Flood damage to district facilities totaled \$33.5 million. The maintenance backlog is \$68 million. Indications are district O&M funding will be reduced \$17 million.

In response, district leaders are developing plans to use a ‘triage’ approach to get the most out of available dollars and attempt to head off

unexpected breakdowns at the projects entrusted to their care.

The district has formed a team to classify operation, maintenance and repair needs into three categories -- must do, need to do, and like to do.

Once the list of items has been categorized, the team will first address those “must do” items. If all those can be accomplished, the district will then turn to the “need to do” list and accomplish as many of those as possible. The district does not anticipate any items in the “like to do” category will be accomplished.

Among the tough choices the team

will consider are closing less-utilized parks and shortening the recreation season at parks that remain open. Some flood-damaged parks may not be reopened at all. Additional park options include reducing trash pick-up and mowing frequency, reducing the number of temporary park rangers and contract park attendants. Such options would help focus available funds on more critical needs.

All the choices will have consequences. As long as a maintenance backlog exists, so does the possibility of unanticipated breakdowns. However, focusing the district’s limited dollars on priority items helps reduce the risk.

Rangers help communities during spring flooding

(Note: Little Rock District project offices sent 10 field personnel to assist downstream levee boards in several communities during the spring flood. This is one of their stories.)

In mid-April, Natural Resources Specialist Brent Watkins couldn't have guessed he would soon be walking in driving rainstorms looking for weak spots on threatened levees. The weather was dry where he works at Greers Ferry Lake near Heber Springs, Ark., and the lake was at the top of its conservation pool, which is pretty normal. That would soon change.

"My team and I were inspecting boat docks and checking the shoreline for encroachments," Watkins said.

On April 21, forecasts began calling for rain. Heavy rains set in, and the water started to rise. In less than two weeks, the White River system of lakes received 12 to 22 inches of rain with the majority of it falling in a five-day period.

The White River reservoirs did their jobs and captured huge amounts of runoff, which significantly reduced flood crests. However, 60 percent of the river basin drains below the dams, so dozens of swollen tributaries poured uncontrolled into the river system. Dramatic flood crests built and threatened levees at several communities in Missouri and Arkansas.

On April 28, Watkins was one of five natural resources personnel from the Greers Ferry Project who traveled over to assist Jackson County officials. Help was needed on three levees in the Jacksonport and Newport areas. This comprised more than 33 miles of levees that required monitoring 24 hours a day through May 7.

"When the National Weather Service predicted a crest of 36 feet at the Newport gage, we used our zip level to identify potential low areas on the levee," Watkins said. "Once the low areas were identified, we helped local officials and volunteers build up the low places with HESCO's and sandbags along the northern portion of the Massey-Alexander levee above Jacksonport State Park."

And it is in times of need that communities really pull together.

"On April 30, we worked for 17 hours straight, and the only reason we stopped then was because of the lightning," Watkins said. "There were about 45 folks filling sandbags, and about 100-200 folks from the community helping do whatever was needed. We started up again the next morning after



Natural Resources Specialist Brent Watkins inspects the levees between Jacksonport and Newport, Ark.

that storm had passed to finish the job."

And their work paid off. About 1,500 feet of HESCO's and 2,900 feet of sandbags were added to the levee. The river crested below the predicted height, and none of the levees were overtopped.

"We were fortunate that the river crested below its predicted height," Watkins said. "But it was such a privilege

to work with the high caliber of folks in the Jacksonport and Newport areas. They understand the risk of living in a flood plain. When it's needed, they pull together to protect their community. It was a community effort, and even though I was away from my family, they made me feel like I was a part of theirs."

Residents thank Corps employees

This letter is in regards to the recent flooding in Jackson County. I have recently seen flooding like never before in my lifetime. And over the last two weeks I have seen it up close and personal. I have family and friends in Jacksonport, Ark. I have spent some long days and even longer nights there helping them during the last two weeks. From moving out families, sandbagging, cooking for volunteers and anything else that needed to be done.

But during this time I got to see what the Corps of Engineers does. I guess I never really knew. I met a great group of guys and observed not only their work but their bond with the town. Some of these men have been in Jacksonport before so they knew most of the community. They worked away from their homes and families, working day and night, in the rain and the cold, and yet they never complained.

I just wanted to take time and say thank you to those men and also to let someone know what a great job they have done. I don't know everyone's names and I don't want to leave anyone out, but Benny Rorie and the guys he brought with him Brent, Gary, Jason, Dave and others did an awesome job. Their hard work and dedication is greatly appreciated. I know I speak for the Guffey family and the town of Jacksonport when I say we couldn't have done it without them.

Thank you for your time.
Sincerely,
Donna Long



Ms. Sue, a resident of Jacksonport stops Park Ranger Jason Pressley and gives him fudge in appreciation of his efforts.

Little Rock District projects, issues

Arkansas River Basin

Rock City Yacht Club Application for a Department of the Army Permit

A public notice was issued on May 11, which described the project in full. All of the appropriate consulting parties, both internal and external, were notified. The public notice closed on June 4. There were no atypical comments received from external entities. The Navigation and Maintenance Section of the Little Rock District expressed some concerns about maintaining navigation safety and avoiding placing structures beyond the dikes. Thus, meetings have been held with the applicant on July 6, Aug. 4, and Aug. 5, to address these concerns. On Aug. 24, the applicant agreed to modify the marina plan to address the setbacks for safety. Final comments were received from the Coast Guard and a permit decision will be made promptly.

White River Basin

Black River (Butler County, MO; Clay, Randolph and Independence Counties, AR)

In the spring of 2008 and 2011 significant flooding occurred along the Black River and inflicted significant stress on the levees.

There are four levee/drainage districts along the Black River in the Butler County/Poplar Bluff area. Two of the districts are federal levees (Butler County Drainage District #12 and the Ring Levee District) and two non-federal levees (Butler County Drainage District #7 and North Inter-River Drainage District).

These four levee/drainage districts protect 100's of acres of land on both the left and right banks of the Black River. Although most of the property is rural farm land, the upstream portions of Butler County Drainage Districts #7 and #12 protect portions of the city of Poplar Bluff, Mo. Three of the four levees (Ring, Butler County #7 and North Inter-River levees) were rated as "unacceptable" during their most recent inspection, the fourth (Butler County #12) was rated as "minimally acceptable."

The North Inter-River Levee was breached during the 2008 flooding event. The breach was caused by overtopping at a below grade road crossing. There was no report of damage during the 2011 event of the North Inter-River Levee. Butler County #7 Levee sustained damage (breaches and slope slides) in both the 2008 and 2011 flood events.

There were reports of underseepage on the Ring Levee during the 2008 event, but no damage was reported during the 2011 event. There was no report of damage on the Butler County #12 Levee from either event. Beside the deteriorating condition of the levees in the area, the levees are being threatened by the erosion of the banks along the Black River. The long history of meandering of the Black River, the restriction of flow due to the huge quantities of debris, and it being confined by levees on both banks have lead to the erosion and instability of the river banks. At most bends in the river significant erosion has occurred,

depositing soil and large trees. The erosion in some areas has encroached onto the levees. If the erosion is left unchecked, the river will eventually breach the levees and eliminate any flood protection to the communities.

There are three levees in Clay County; Central Clay County Drainage District, Western Clay County Drainage District and Big Gum Drainage District. These levees protect small communities, farm land and portions of the city of Corning, Ark. The flood water in both 2008 and 2011 was nearing the crown of the levees and it is believed that if the waters had not overflowed Highway 62, the levees may have breached and/or overtopped in 2011. All these levees were rated as "unacceptable" during their most recent inspection. These ratings were primarily based unwanted vegetation. Since 2008, the Central Clay and Western Clay sponsors have been working to clear the levees of the unwanted vegetation. They are making progress in this effort, but because of limited funds, it could take several more years to clear the levees.

The Running Water Drainage District in Randolph County protects portions of the city of Pocahontas, Ark., surrounding communities and farm land in Randolph and Independence counties. The Running Water Drainage District was rated as "unacceptable" during their most recent inspection. The levee was damaged in both the 2008 and 2011 flood events. In 2008 the levee was breached in two locations and sustained damage in several other places. After the 2008 event, the levee district re-organized, hired an engineer and began work on repairing the breaches and clearing the levee of unwanted vegetation. The levee district was making good progress; the two breaches were repaired and they had cleared approximately 50 percent the unwanted vegetation. Unfortunately, the 2011 event placed tremendous pressure on the levee and the levee was breached in 13 locations and caused significant flooding in the two counties.



Running Water Drainage District levee breach

White River Water Control Plan

The district is currently receiving requests to initiate a study of the Water Control Plan for the White River System of Reservoirs. An extremely wet weather pattern in 2008 through spring 2011 resulted in high lake levels as well as extended periods of high river stages contributing to renewed interest in the revision to the water control plan.

Stakeholders have actively engaged their elected officials to seek changes to the White River Water Control Plan that would benefit their specific interests. The Little Rock District last implemented a revised water control master plan for its lakes on the White River in December 1998. The new plan "fine tuned" the existing 1963 plan, as it called for a slightly lower regulating stage at Newport and Georgetown, Ark., when evacuating flood storage from the lakes during the agricultural season. It called for a slightly higher regulating stage during the non-agricultural season. No changes to authorized lake levels were proposed or considered. Additional funding would be required to initiate a study of the water control plan.

Water Supply



Water supply is available on a regional scale

Mid-Arkansas Water Alliance

On May 5, the District Engineer and Mid-Arkansas Water Alliance signed the water supply storage agreement for 18,751 acre-feet (15 million gallons a day) of storage in Greers Ferry Lake. MAWA is a coalition of eight Central Arkansas counties: Cleburne, Faulkner, Pulaski, Saline, Lonoke, Conway, Perry, and Garland.

Ozark Mountain Regional Public Water Authority

Construction of the new Bull Shoals Water Treatment Facility began February 2011 and is scheduled to be completed the fall of 2012. Currently, contractors are digging trenches and burying distribution pipe lines along more than 100 miles of right-of-way in Boone, Newton, and Searcy counties. Other contractors are building an intake structure and treatment plant near Tucker Hollow.

The Ozark Mountain Regional Public Water Authority is a coalition of 20 water systems consisting of 22,000 people in Arkansas that was formed in 2004 to pursue a future water supply for the north central Arkansas area.

Water Supply Issues

Under performance-based budgeting, the district receives very little money to work on water supply studies and reports. The small amount of funding received is primarily used for monitoring existing contracts and continuing progress on a few existing reports.

Studies funded by district operation and maintenance:

1. Beaver Lake: The district is using \$400,000 of O&M funds to complete the Environmental Assessment and Reallocation Reports in FY12 for an 8mgd request by the Washington Regional Public Water Authority.

Unfunded reports:

1. Norfolk Lake: In September 2000, The City of Mountain Home requested 5 mgd from Norfolk Lake. In September 2004, Baxter Counter Water Association requested 5.8 mgd from Norfolk Lake.
2. Greers Ferry Lake: In January 2007, Community Water System requested 2.5 mgd. In December 2004, Searcy County Regional Water District requested 5,000 acre-feet. In June 2006, the City of Clinton requested 2.5 mgd.
3. Table Rock Lake: Tri-State Water Resource requested 50,000 acre-feet from Table Rock Lake in July 2007.

Completed but unexecuted agreements:

Greers Ferry Lake, City of Heber Springs: This reallocation report was approved in 2007, but the water supply agreement was not executed due to a dispute over costs for water storage. The city disputes the water supply agreement determination by the Assistant Secretary of the Army for Civil Works, which included annual operation and maintenance costs. The non-federal sponsor requested legislative drafting services to amend the original authorization for storage at no cost, so that it includes costs associated with operations and maintenance also. The city refuses to sign the agreement until new legislation resolves the issue.

Other issues

Southwest Arkansas Water District and Tri-Lakes Water District both have contracts which included future storage to be activated at some point during the life of the project not to exceed 50 years from the effective date of the contract. The effective dates for SAWD and TWD's contract were in 1966 and 1976, respectively. To date, each water district pays principal and interest on only the portion of storage that has been activated. Therefore, the remaining principal and interest for the remaining storage under the contract for SAWD and TWD, will be due in full in the years 2016 and 2026. Each water district has a substantial amount of future storage remaining. TWD has activated 190 acre-feet of its 10,100 acre-feet of storage leaving 9,910 acre-feet remaining; SAWD has activated 56,430 acre-feet of its allocation of 150,000 acre-feet, 93,570 acre-feet remaining.

SAWD has indicated it still has use for the remaining storage; however it is seeking ways to extend the payments of its contractual commitments beyond 2016.

Continuing Authorities Program

Continuing Authorities Program Overview

The Continuing Authorities Program is an essential pathway for communities to partner with the Corps on small water resource projects. We made great progress on several projects in FY11. The district currently has five funded Section 14 projects (White River Augusta, Ark.; Old Grand Glaise, Ark.; Southside, Ark.; Highway 58, Ark.; and Paw Paw Road, Russellville, Ark.) that were funded in FY 11 to complete feasibility level analysis. The two Section 107 small harbor projects are using carryover funds to continue the feasibility study in FY11 (Lavaca Port, Ark., and Russellville Slackwater Harbor). There are several ecosystem restoration projects that were funded in FY11. Shirey Bay/Rainey Brake WMA, Ark.; Grassy Lake, Millwood, Ark., Fourche Creek/Coleman Creek Hindman, and Rock Creek, Little Rock, Ark. continue to make progress in FY11. Arkansas River Ecosystem Restoration received new funds in FY11 to re-evaluate the project scope at the sponsor's request.

Due to the flexibility of the programs and need for water resource solutions, demand often exceeds agency wide capability, so unfortunately a backlog of projects needing funds and approval under many of these authorities remains. Small Flood Damage Reduction projects at Dyer, Ark; Oil Trough, White River, Ark; Tucker Creek Levee, Ark; Short Mountain Creek, Paris, Ark; Crooked Creek, Alexander, Ark; Little Black River Watershed, Naylor, Mo.; and Walker Creek, Mo., remain unfunded in FY11. Also, project improvement modification projects at Sulphur Creek, Heber Springs, Ark., and Rockaway Beach, Mo., are unfunded in FY11.

There are no funds in the FY12 budget for projects under the Section 14, 103 or 107 authorities. Therefore in FY12 we are unable to start design and construction on three of our five emergency streambank restoration projects, Paw Paw Road, Augusta, and Old Grand Glaise. Once construction funds are received, Highway 58 is ready to execute the PPA and start construction in October 2012. This will also preclude start of one request for a new project, Stillhouse Bend, Ark. Lack of funds in FY12 budget will result in suspension of the feasibility study on Lavaca Port. Russellville Slackwater Harbor funds were revoked in FY11. Federal Highways Administration is working to complete the Environmental Impact Statement for Russellville's Intermodal Facility scheduled to be completed May 2012. The funds revoked in FY11 will be needed in May 2012 to complete the harbor design, execute the PPA, and construct the project. Also in FY11, funds were revoked on six other projects: Paw Paw Road, Hwy 58, Arkansas River Environmental Restoration, Rock Creek, Shirey Bay, and Lavaca Port.

Another critical problem facing the program is that many communities in Arkansas and Missouri have been severally impacted by the economic downturn. Numerous non-federal sponsors within the past two to three years have been unable to cost-share in the feasibility studies and construction of projects. Even with capability to perform work-in-kind services in lieu of cash, the city, county and state agencies are facing lay-offs and terminations that make supporting the projects challenging.

Issues and Other Topics



Fayetteville shale area map

Fayetteville Shale

Little Rock District, Regulatory Division is working with the gas industry to resolve more than 100 unauthorized "frac" ponds constructed in the Fayetteville Shale Play Area for "fracing" water. All unauthorized dams are reviewed by a registered professional engineer to ensure proper design and safety of structures downstream. Dams depending on the size are required to be retrofitted with a minimum flow pipe to maintain water flows downstream of the structure to preserve the biological, physical, and chemical aspects of the impacted stream. The Little Rock District has approved one compensatory mitigation bank and is in the process of approving two additional compensatory mitigation banks to provide viable compensatory mitigation for after-the-fact dam authorizations and for use as mitigation for future construction impacts. The district has also approved three permittee-responsible consolidated mitigation areas which have resulted in the restoration and enhancement of more than 12,500 linear feet of streams in the Fayetteville Shale Play area. In addition to the unauthorized "frac" ponds we have also issued 675 Nationwide Permits in the Fayetteville Shale Play area in FY11.

Levee Periodic Inspection Program

As a result of \$3.5 million in ARRA funds, periodic inspections on 32 Federal Levee Systems (42 Segments) were completed in March 2011 and the final reports were mailed to sponsors on or before April 4. Twenty-one of the segments were rated as minimally acceptable and 21 segments were rated as unacceptable.

The overriding items of concern for the levees were lack of adequate funds, unwanted vegetation growth, lack of animal control, deteriorating culverts and below grade road crossings. These items and others have contributed to the potentially unsafe condition of the levees within the Little Rock District.

Operation and Maintenance Backlog

The President's Budget for FY 2012 was \$88.89 million. A backlog of maintenance items continues to build over time. The current high priority backlog is estimated at more than \$68 million. A few of our maintenance priorities include:

McClellan-Kerr Arkansas River Navigation System

- Replace Link Pins, Lock Miter Gates (Norrell, Murray, Dardanelle) (\$1.7 million)
- Replace Control Wiring at Locks (\$1.5 million)
- Replace Hydraulic, Air & Water Piping (\$2.9 million)
- Repair Lock Wall Hole & Stilling Basin Erosion, various locations (\$1.5 million)
- Downstream Bulkhead Closures Structure (\$1.7 million)
- Procure Stoplogs (\$2.15 million)
- Rehab/Paint Tainter Gates, Mills Dam (\$14.8 million)
- Ark/White Cutoff: Reconstruct Melinda Structure (\$15 million)

Norfolk Lake

- Rehab and Paint Tainter Gates (\$11.3 million)

Ozark Lock & Dam

- Rehab and Paint Draft Tube and Intake Gates (\$5.5 million)

Dardanelle Lock & Dam

- Paint/Rehab Draft Tube and Intake Gates/Replace Roller Chains (\$4.5 million)
- Seal Leaking Monolith Joints (\$1.0 million)
- Replace 4.16kV Lock Service Feeder/Dam Gallery Lighting and Receptacles (\$1.0 million)
- Cavitation and Liner Repairs (\$1.7 million)

Table Rock Lake

- Update Project Master Plan (\$2.7 million)

Privately Owned Domestic Sewer Systems at Little Rock District

Little Rock District's new policy on the use of privately owned domestic sewer systems on public land applies to all lakes, reservoirs and fee lands. There are currently 44 permits for PODSS within the district.

The district will not authorize any new PODSS; newly discovered PODSS not authorized will be processed as unauthorized structures/encroachments; authorized PODSS must comply with all applicable state and local laws and regulation; and authorizations for existing PODSS will not be renewed or extended beyond December 31, 2030. All PODSS and associated components must be removed from public lands or rendered permanently unusable and lands restored to original condition by December 31, 2030.

Shoreline Management Program

Shoreline management plan reviews have been postponed or delayed due to lack of funding. These plan reviews are not being funded as a result of performance based budgets and higher priority of backlogged recreational maintenance and facility projects. A complete public review of Table Rock Lake's shoreline and master plan with environmental documentation would cost more than \$3.1 million. This would also include an Environmental Impact Statement. Shoreline management plans are developed to achieve a balance between permitted private uses and resource protection for general public use. Little Rock District manages seven lakes with SMPs, and these plans encompass more than 3,000 miles of shoreline.

Submersible Pump Policy

The Little Rock District instituted a new policy prohibiting the use of privately-owned submersible pumps, for domestic purposes. This policy applies to all Little Rock District lakes: Beaver, Table Rock, Bull Shoals, Norfolk, Clearwater, Greens

Ferry, Nimrod, Blue Mountain, Ozark, Dardanelle, Millwood, Dierks, DeQueen and Gillham. It also applies on lands where the Corps holds flowage easements on the Arkansas River navigation pools. The policy was developed in the interest of public safety, to prevent potential electrical shock or electrocution. The Corps' safety manual requires that electrical equipment be listed by a nationally recognized testing laboratory, such as Underwriters Laboratory, for the application it is being used. We know of no submersible pumps that are rated for use in open water, therefore, we cannot approve their use on our lakes and rivers.



Spring flooding at Moonshine Beach on Table Rock Lake in Missouri

Spring Flood 2011: Arkansas, White, Black, and Little Rivers Basins in Arkansas and Missouri.

In 2010, drought conditions developed across Little Rock District and continued into spring 2011. By February, the district lakes reached levels well below their conservation pool elevations, some below 70 percent of capacity. Areas were designated as moderate drought conditions by the US Drought Monitor, and most areas needed more than a foot of rain to recover from the drought conditions.

A shift in the weather pattern began in mid-April. Rainfall began to lessen the impacts of drought, yet two significant rainfall events created the runoff that produced the flood event. The first storm began the afternoon of April 21 and ended April 28. Rainfall from this event was greater than twice the monthly average for April. The second significant storm event began the afternoon of May 20 and ended May 29. This eight-day rain event produced rainfall depths equal to the monthly average, and for the month of May, rainfall was about twice the average. Rainfall totals for April were two to four times above average across the district. Also, over 70 percent of the seven-day storm total fell in a three-day period. During the first two weeks of May, additional rainfall fell across saturated basins creating additional runoff.

Little Rock District lakes captured and stored runoff that developed from the rainfall and available flood storage was quickly depleted. As flood storage was filled, releases needed to crest pools below critical levels at Beaver, Table Rock, Bull Shoals, and Norfolk dams became necessary. Record pool

levels were recorded at Table Rock and Bull Shoals lakes. Clearwater and Dierks lakes crested at their second highest level on record. On the Arkansas River, extensive rainfall in Oklahoma and Arkansas pushed river levels above flood stage at several locations. The rising Mississippi River pushed elevations higher below Dam 2 and along the White River Entrance Channel. Water from the Mississippi River flowed backwards past Norrell Lock & Dam and created a reverse flow condition at Lock 2 that heretofore had not occurred. The district staff rushed to develop a plan to minimize damage to the lock causing the lock to be closed to commercial navigation for several weeks.

While the lakes were capturing storage to reduce downstream flooding, runoff downstream from the dams created a significant flood event from Poplar Bluff, Mo. to Pochontas, Ark. along the Black River and from Branson, Mo. to St. Charles, Ark. along the White River. However, the operation of the White River lakes reduced flows at the Newport, Ark. regulation station by 300,000 cubic feet per second, which prevented the overtopping of levees from Jacksonport to Clarendon. Flow reductions on the Arkansas and White rivers are estimated to have reduced the flow in the Mississippi at the time of its crest that reduced flood heights about two feet from Arkansas City to Vicksburg.

Military Program

Air Force Medical O&M Mission

The district is currently in the process of executing the FY11 program of about \$383 million for Air Force facilities located around the world. The Little Rock District is the Corps-wide designated program manager for all medical O&M work. The Air Force has also requested that the current program management plan be updated to designate the Little Rock District as the design and construction agent for select Air Force Medical Service MILCON projects as determined by the Air Force Medical Service Health Facilities Division. The proposed revised PgMP is at HQUSACE for review.

Fort Chaffee

Little Rock District is providing support to the National Nuclear Security Administration - Office of Secure Transportation, the Navy Seals, and the 63rd RSC Army Reserves at Fort Chaffee. In support of these customers, the Little Rock District awarded a \$45 million Job Order Contract in June 2009 to SDIC Constructors, a small business 8 (a) Native Hawaiian Organization. Several JOC task orders for various construction projects at Fort Chaffee, with a total value of approximately \$6.8 million, have been awarded since June 2009, with an additional project of approximately \$1.2 million scheduled to be awarded by the end of FY11.

Little Rock Air Force Base Construction Program

Little Rock District manages the design and construction program (milcon) at Little Rock Air Force Base. LRAFB is the premiere C-130 operational and training facility for the United States and its allies. Our program currently exceeds \$39 million

in design and new construction. The only project currently in construction is a new \$10.4 million Security Forces Operations Facility that was awarded for construction in July 2010. Projects currently in the initial design phase include a new \$25 million C-130J Fuels Maintenance Hangar and a \$4 million C-130J Weapon System Trainer Flight Simulator Addition, both with planned construction contract award dates in the first quarter of Fiscal Year 2013. Recently completed in May 2011, is the new \$5.8 million WST Flight Simulator Addition that was awarded for construction in January 2010.

Pine Bluff Arsenal

Little Rock District manages the design and construction program at Pine Bluff Arsenal. A construction contract was awarded Jan. 22, 2010 to upgrade 71 warehouses to comply with security standards for storage of Category II and IV armed ammunition and explosives. The project is under construction and is scheduled for completion in September 2012.

A steam line replacement project (ARRA) was awarded for \$20.9 million to provide infrastructure, demolition and remediation to accommodate replacement of central boilers and air compressor plants for a more energy efficient system. A project to upgrade and correct active vehicle barriers system deficiencies will be completed by October 2011.

An Armed Forces Reserve Center is expected to be completed in September. The AFRC will provide a facility for four Army Reserve units (one retention cell, one engineer platoon, and two engineer sections) and two Army National Guard units (one signal company and one signal detachment). It will also provide a 200-member training facility, organizational maintenance shop, storage and parking on ten acres of land on the perimeter of Pine Bluff Arsenal. Project was designed by Louisville District. Construction is being administered by Little Rock District.

Support to Others



Central Texas Healthcare System in Temple, Texas

Department of Veteran Affairs

The Army Corps of Engineers is providing planning, design, and construction management services to the Department of Veterans Affairs. Typical projects include non-recurring maintenance projects, technological upgrades, patient and clinical areas, upgrading elevators, infrastructure, and enhancing energy systems. The minor construction projects include construction of hospital additions (MRI additions) and major renovations of patient, surgery, mental health and clinical areas. The Little Rock District is currently supporting Veterans Integrated System Networks 15, 16 and 17, which cover Texas, Missouri, Kansas, Indiana, and Illinois, Oklahoma, Missouri, Arkansas, Louisiana, Mississippi, and Florida Panhandle.

Continued Authorities Program Roll-Up

■ Green means the project is active.
 ■ Yellow means the project is active but has issues.
 ■ Red means the project has been terminated or there are no funds to start.

Section 14 – Emergency Streambank and Shoreline Protection of Public Works Projects – Annual Statutory Limit \$15 Million

Project Name	Status	District	FY 12 Funds ¹	Issue
Old Grand Glaise, Jackson County, AR	Active-Feas; MR will be completed Oct 2011.	AR-1	\$27K	FY12 funds of \$450k are needed to execute PPA and complete construction.
Highway 58, Guion, AR	Active-DI; Exec PPA in Sept 2011 & award contract by Nov 1.	AR-1	\$167K -\$28.5k	Need revoked funds back (\$28.5k). FY12 funds of \$390k are needed to execute PPA and complete construction.
White River, Augusta, AR	Active-Feas	AR-1	\$77K/ -\$1,931	Need revoked funds back (\$1931). FY12 funds of \$400k are needed to execute PPA and complete construction.
Paw Paw Bend Road, Arkansas River, AR	Active-Feas; MR will be completed Oct 2011	AR-3	\$100k	FY12 funds of \$500k are needed to execute PPA and complete construction.
Southside Wastewater, Batesville, AR	Active-DI; Contract advertised; Contract award scheduled Sept 2011	AR-1	\$550	Received \$450k in FY11 to construct
Stillhouse Bend, Batesville, AR	New Start	AR-1	\$0	Awaiting federal funds. Request – 2010. Assessment \$100K

Section 107 Small Navigation Improvement Projects – Annual Statutory Limit \$35 Million

Project Name	Status	District	FY 11 Funds ¹	Issue
Lavaca Port, Lavaca, AR	On hold-Feas	AR-3	\$50K/ -\$8,562K	Need data from port users in order to calculate benefits. Need revoked funds back(\$8,562). FY12 funds of \$50k are needed to execute a FCSA.
Russellville Slack Water Harbor, Russellville, AR	On hold -DI	AR-3	\$2,875W -\$2,850M	Final EIS and ROD are scheduled to be completed by FHWA by Oct 2012. Need revoked funds back(\$2,850k) to execute PPA and construct harbor.

Section 205 – Flood Damage Reduction Projects – Annual Statutory Limit \$55 Million

Project Name	Status	District	FY 11 Funds	Issue
Otter Creek, Shannon Hills, AR	Active	AR-2	\$50K	Will require cost-share agreement to complete feasibility
Prairie Creek, Russellville, AR	Active	AR-2	\$28.7K	Will require cost-share agreement to complete feasibility
Little Black River Watershed, Naylor, MO	Back Log - Restart	MO-8	\$0	Awaiting federal funds to initiate Feasibility Study. Site visit and analysis in Oct 2005 indicated no economically justified project. Additional flooding in 2008 and 2009 warrant re-evaluation. Request – Jan 10
White River, Oil Trough, AR	Back Log - New Start	AR-1	\$0	Awaiting federal funds. Request – 2005. Initial assessment \$100K
Tucker Creek, Faulkner Co Levee, AR	Back Log - New Start	AR-2	\$0	Awaiting federal funds. Request – 2008. Initial assessment \$100K
Walker Creek, Van Buren, MO	Back Log - New Start	MO-8	\$0	Awaiting federal funds. Request – 2006. Initial assessment \$100K
Short Mountain Creek, Paris, AR	Back Log - New Start	AR-3	\$0	Awaiting federal funds. Request – 2009. Initial assessment \$100K

Section 205 – Flood Damage Reduction Projects – Annual Statutory Limit \$55 Million (Continued)

Project Name	Status	District	FY 11 Funds ¹	Issue
Short Mountain Creek, Paris, AR	Back Log - New Start	AR-2	\$0	Awaiting federal funds. Request – 2009. Initial assessment \$100K
Short Mountain Creek, Paris, AR	Back Log - New Start	AR-3	\$0	Awaiting federal funds. Request – 2009. Initial assessment \$100K

Section 206 Aquatic Ecosystem Restoration Projects Annual Statutory Limit \$50 Million

Project Name	Status	District	FY 10 Funds ¹	Issue
Shirey Bay/Rainey Brake WMA	Active – Feas; MR due Oct 2011.	AR-1	\$80K/- \$11.5k	Need revoked funds back (\$11.5k); FY12 funds of \$25k are needed to complete MR and an additional \$100k in needed to execute a FCSA and complete the feasibility phase in FY12. Approx. \$500k is needed to execute PPA and complete construction.
Fourche Creek, Hindman Park, Little Rock, AR	Active	AR-2	\$70K	Need revoked funds back (\$1,046)
Little Black Ditch, Naylor, AR	Back Log - New Start	MO-8	\$0	Awaiting federal funds. Request - FY2006

Section 1135 Project Modification for Improvements to the Environment – Annual Statutory Limit \$40 Million

Project Name	Status	District	FY 11 Funds ¹	Issue
Grassy Lake, Millwood Lake, AR	Active	AR-3	\$305K	FY12 funds of \$200k are needed to complete the feasibility phase
Rock Creek, Boyle Park, Little Rock, AR	Active	AR-2	\$163K/- \$26.5K	Need revoked funds back(\$26.4k)
Arkansas River Environmental Restoration	Active	AR-2, AR-3, AR-4	\$50K/- \$27k	Need revoked funds back(\$27k)
Rockaway Beach, Rockaway, MO	Backlog Re-start	MO-7	\$0	City of Rockaway Beach wants to re-evaluate the completed project because implemented solution not providing desired output.
Sulphur Creek, Heber Springs, AR	Backlog - New start	AR-2	\$0	Awaiting federal funds and Congressional Committee approval to start

¹Includes funds carried over from previous years.

Investigations Program Roll-Up

■ Green means the project is active.
 ■ Yellow means the project is active but has issues.
 ■ Red means the project has been terminated or there are no funds to start.

Project	Purpose	Status	District	FY11 Funds	FY12 Presidential Budget	Issues
AR River Levees	Reconstruct levees	All work has ceased due to funding	AR-1 AR-2 AR-3 AR-4 OK-1 OK-2	0	0	Non-federal sponsors have been unable to cost share in the project costs (75/25)
Fourche Creek & Tributaries	Ecosystem restoration & flood reduction	No work	AR-02	0	0	Funding of \$100,000 and a "new start" is needed
May Branch	Flood risk management to reduce damages to the 100 year event	60 percent design	AR-01 AR-04	0	0	\$1.4 million could be used in FY12 to complete design
Three Rivers	To study and develop a plan to address the serious hydrologic and hydraulic problems that are threatening the ecosystems and navigation	There is a need for a comprehensive study to address the entire basin	AR-01 AR-04	0	0	A "new start" and \$100,000 is needed to complete a 905(b) reconnaissance study
Southwest Arkansas	Ecosystem restoration to address a myriad of issues facing the basin, i.e. develop a comprehensive watershed plan	Finalize the PMP, negotiate and sign a feasibility cost-sharing or watershed assessment agreement	AR-04	0	0	Will execute \$300,000 of congressional added funds and then suspend work
Springfield	Flood risk management	A national pilot study project to modernize CW planning process Corps-wide. Feasibility study to completed in Dec. 2012	MO-07	0	0	None. Will execute project with previously added congressional funds in FY12
Tri-State Water Coalition	To study regional water demands through year 2060	Executed PAS in Feb. 2011. Currently collecting water usage and demographic data	MO-07 MO-08	0	0	\$75,000 is needed in FY12 to begin Phase II (existing conditions)

Project	Purpose	Status	District	FY11 Funds	FY12 Presidential Budget	Issues
White River Comprehensive Study	Comprehensive basin study by Little Rock and Memphis districts	Currently collecting baseline imagery on White River, Cache River and Bayou DeView	MO-07 MO-08 AR-01 AR-03	\$130,000	0	\$1.5 million could be used for the study of hydrologic and geomorphic impacts

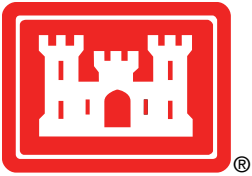
Construction General Program Roll-Up

Project	Purpose	Status	District	FY11 Funds	FY12 Presidential Budget	Issues
Arkansas River 12-foot channel	To deepen navigation channel to 12' minimum depth	There are no funds on this project and all work has ceased	AR-01 AR-02 AR-03 AR-04	0	0	The project will not resume until the project receives (1) a "new start" (2) CG funds, and (3) cost-shared funding (50/50) from the Inland Waterways Trust Fund
Fourche Bayou Basin	To acquire 1,750 Acres of bottom-land forest and and to construct nature appreciation facility	Proceeding with executing a PPA by Jan. 2012 with the City of Little Rock	AR-02	0	0	A "new start" and \$7.49 million is needed to proceed with project construction
Ozark Powerhouse Major Rehabilitation	Rehabilitation of turbines	First unit of five to be back in Service Fall 2011. The project is expected to receive \$12.8 million (customer funding) in FY12 thru a MOA with City of Jonesboro to continue all construction activities.	AR-03	0	0	\$20 million is needed to complete construction in FY13
Beaver Dam Trout Production Facility	To construct a trout production facility to compensate for reduced number of fish due to construction of dam	Complete water supply reallocation report by December 2011	AR-03	0	0	\$600,000 could be used to complete the project design and NEPA
Clearwater Dam Safety/Major Rehabilitation	Construct cutoff wall for dam safety	Sixty-five percent of the 4,110 foot linear wall. Construction completion scheduled for 2013.	MO-08	\$40 million	\$32.9 million	None

Project	Purpose	Status	District	FY11 Funds	FY12 Presidential Budget	Issues
White River Minimum Flows	To provide adequate trout habitat downstream of Bull Shoals and Norfolk dams	The work at Norfolk is scheduled for completion by August 2012. Bull Shoals PPA signing scheduled for October 2011.	AR-01 AR-03	0	0	None. Prior congressional funds are being utilized to to execute the project

Operation and Maintenance Program Roll-Up

Project	Purpose	Status	District	FY11 Funds	FY12 Presidential Budget	Issues
Arkansas/White Cutoff	To maintain navigation reliability	Making small annual repairs to existing structure. No long term solution is proceeding because of funding.	AR-01 AR-02 AR-03 AR-04 OK-01 OK-02	\$300,000	0	\$15 million is needed to build a structure in support of the existing structures that were heavily damaged by the floods in 2011, i.e. Owens Lake and Melinda
DeQueen Lake (Project Office Replacement)	Construction of a new office because existing Facility doesn't meet security requirements or building codes	Design is 30 percent complete	AR-04	0	0	Construction on hold because of lack of funding
Millwood Lake (Control of Siltation)	Siltation is impacting the quality and quantity of water while reducing flood storage capacity	None	AR-04	0	0	Funds in the amount of \$500,000 are needed to complete a sediment survey
Land Exchange Process (Mark Twain National Forest)	Propose to interchange 11.6 acres of Army land and 5,205 acres of National Forest Service Land near Table Rock Lake	None	MO-07	0	0	(1) Lands are not needed for USACE mission needs (2) congressional authority is needed and (3) funds in excess \$25 million would be required for acquisition process, i.e. boundary line disputes, etc.
Table Rock Lake (Dewey Short Visitor Center)	15,000 square foot regional visitor center	Construction scheduled for February 2012 with ribbon-cutting planned for late April 2012	MO-07	0	0	None



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