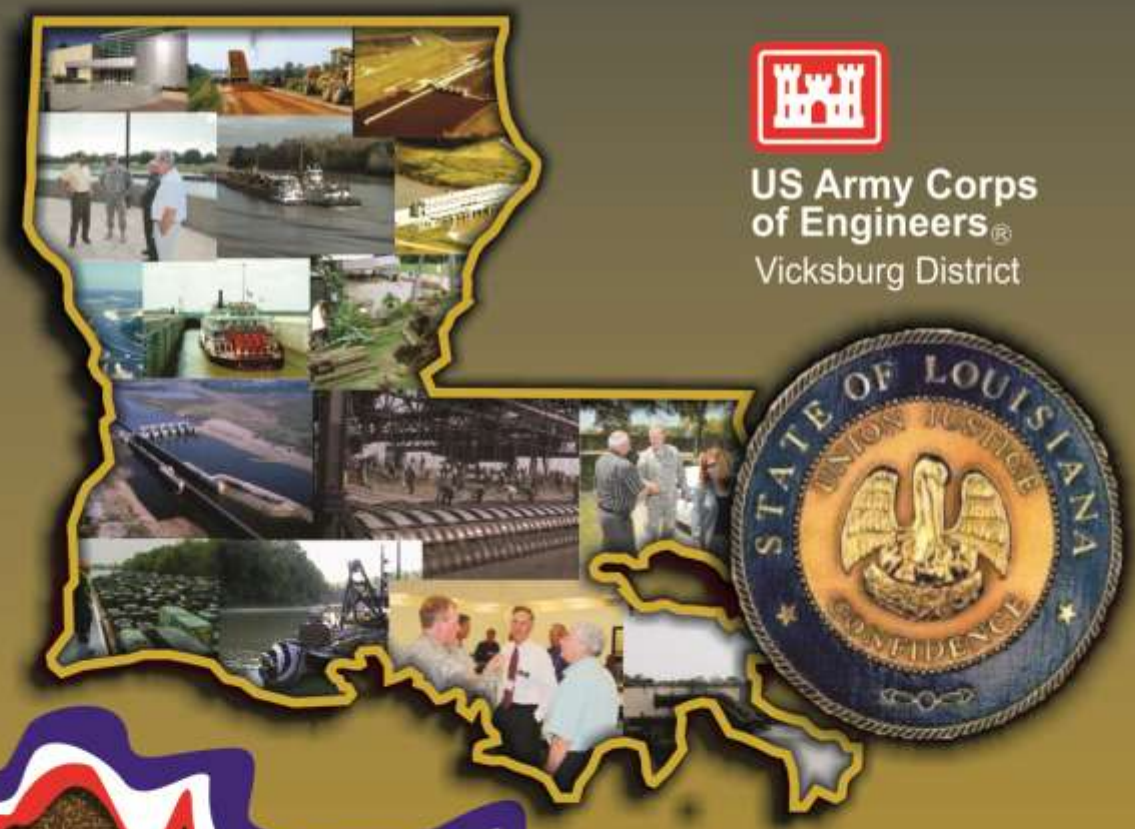
September 2015

Vicksburg District

Project Status

Louisiana



US Army Corps of Engineers®
Vicksburg District

Louisiana Project Status Book

for September 2015

This Project Status Book contains information on the latest progress of the Vicksburg District's projects in the State of Louisiana. You will find project maps with corresponding fact sheets for each project. Fact sheets cite authorization for the project and provide locations and project description information. Also provided are activities for the fiscal year 2015 District capabilities are included for additional funds that may become available. Additionally, important issues or impacts are supplied for a more detailed perspective of the project. The Vicksburg District publishes this book to provide valuable status information for ongoing projects. For your added convenience, a copy of this book in PDF format is provided on the disk attached inside the back cover. However, if you should find you still have questions or need additional information about projects contained in this book, please contact:

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Office Phone: 601-631-7154 or Cell: 601-618-0837

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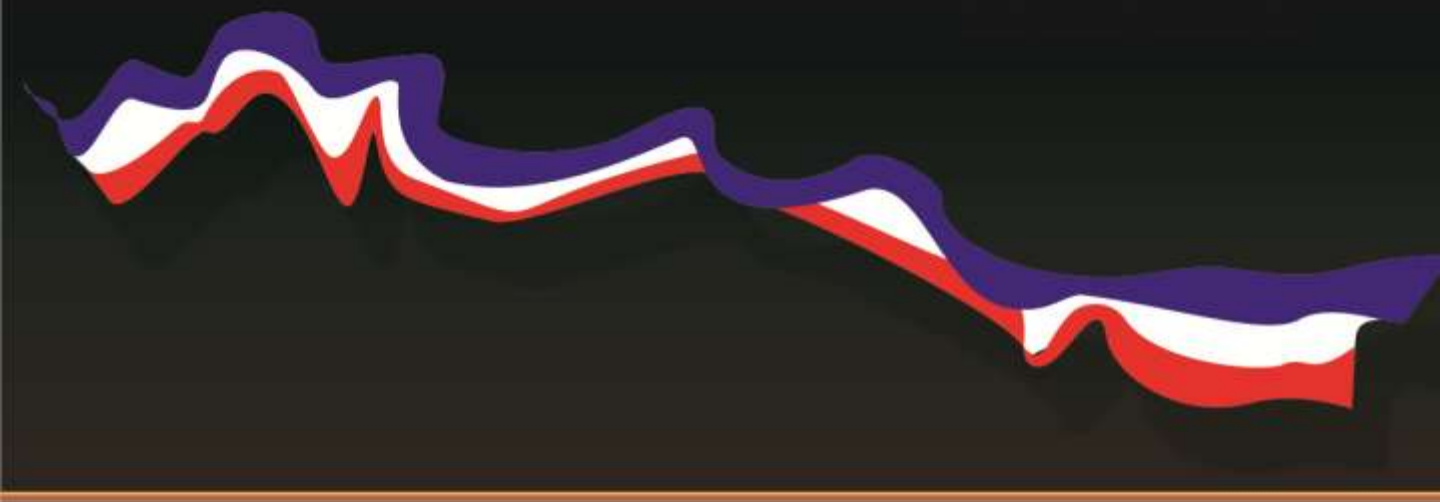

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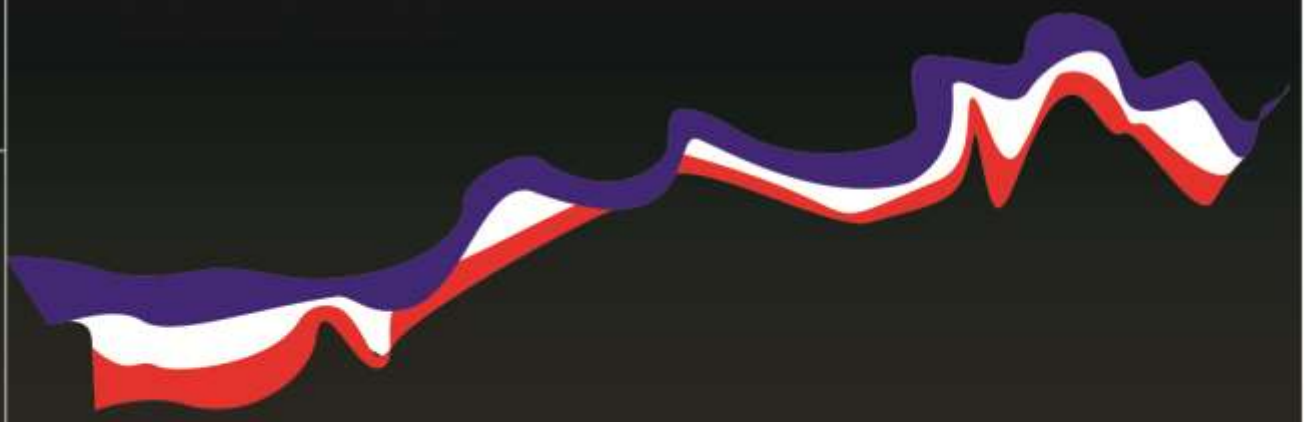

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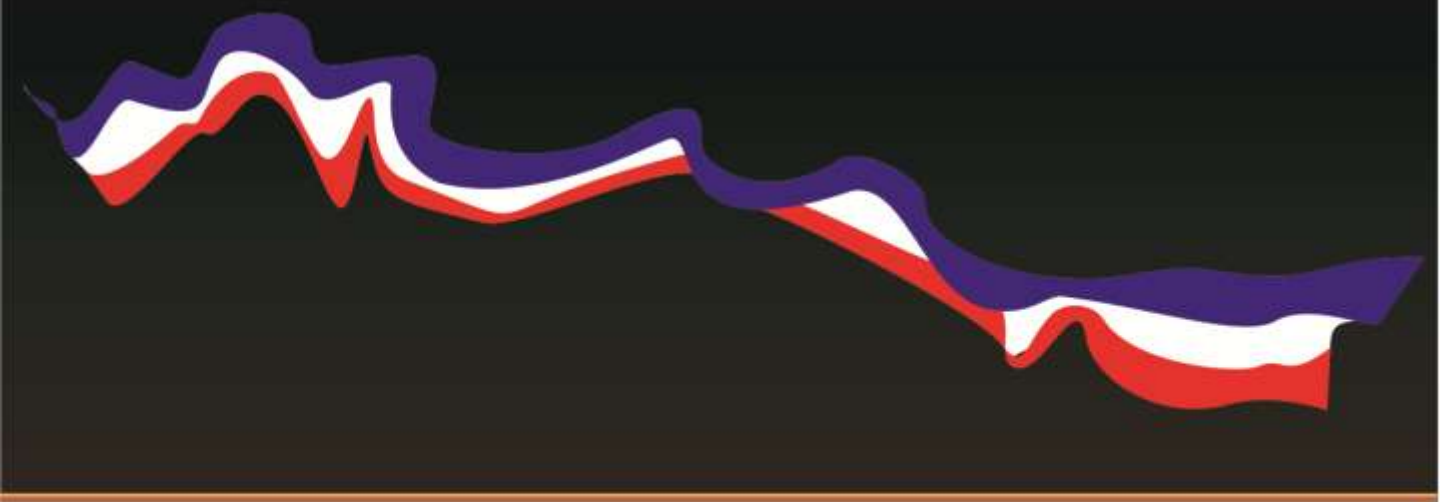

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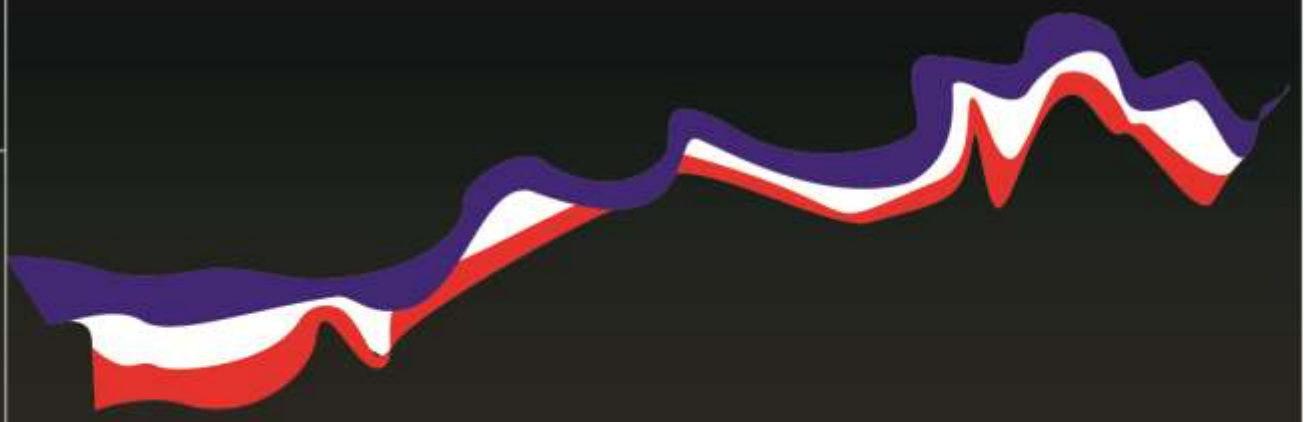
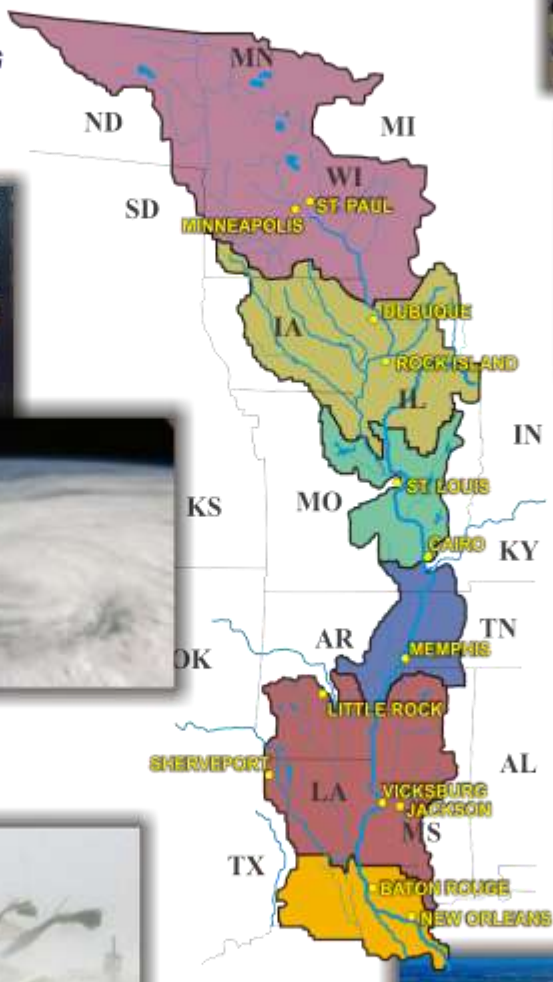


The Mississippi Valley Division

- We are 6 Interdependent Districts
- We have regional technical experts that bring expertise from the entire valley to work any water resource engineering challenge
- It is our pleasure to serve and provide the Nation's water resource engineering solutions
- We are...*BUILDING STRONG*



US Army Corps of Engineers
Vicksburg District

BIOGRAPHY

Colonel John W. Cross

Colonel John W. Cross is a native of Laurel, Mississippi and earned his Bachelor of Science Degree in geology in 1987 from the University of Southern Mississippi. He received a Masters of Business Administration in 1998 from the University of Central Texas and a Masters of Strategic Studies in 2010 from the US Army War College. His military education includes the Engineer Officer Basic and Advanced Courses, the Command and General Staff College at Fort Leavenworth, Kansas, and the US Army War College at Carlisle Barracks, Pennsylvania.

Colonel Cross began his career as an engineer platoon leader in Germany and later served as a company executive officer. After attending the Engineer Captain's Advanced Course, he moved to Fort Polk, Louisiana and deployed to Desert Storm serving as an assistant battalion operations officer. Following the war, he commanded an engineer company at Fort Polk, Louisiana and Fort Hood, Texas. He was selected for the Army's Training with Industry Program where he worked for the Environmental Protection Agency (EPA) in Denver, Colorado. His focus during this time included compliance with State and Federal regulations and environmental restoration at Superfund sites and Formerly Used Defense Sites (FUDS) in an eight state area. After working with the EPA in Denver, Colonel Cross was assigned to the Corps of Engineers Fort Worth District with duty at Fort Hood, Texas. At Fort Hood, he worked on various environmental contracts as well as military construction and FUD remediation in central Texas. As part of his tour with the District, he served as a project officer at Brooks Air Force Base in San Antonio, Texas supervising Military Construction for the Air Force.

He attended the Army's Command and General Staff College and served again at Fort Hood as a battalion operations officer and executive officer. After a tour in Stuttgart, Germany, he was selected for command of the Brigade Special Troops Battalion in 1st Brigade, 4th Infantry Division at Fort Hood. He deployed the battalion to Iraq in 2006 and operated north of Baghdad. After command, he was selected to lead the engineer training team at the Army's National Training Center at Fort Irwin, California where he trained battalions before they deployed to combat in Iraq and Afghanistan.

After graduating from the War College in 2010, he was assigned to Fort Bragg, North Carolina where he served as the XVIII Airborne Corps Engineer and deployed with the Corps to Iraq. In Iraq, he served as the Deputy Engineer to United States Forces Iraq and was responsible for the final disposition of over 80 bases and attendant infrastructure housing 50 thousand soldiers as well as the construction of facilities for the Department of State.

Colonel Cross is married and they have two sons.

Vicksburg District
Congressional Districts

Governors and U.S. Senators

ARKANSAS
Governor Asa Hutchinson
Senator John Boozman
Senator Tom Cotton

LOUISIANA
Governor Bobby Jindal
Senator David Vitter
Senator Bill Cassidy

MISSISSIPPI
Governor Phil Bryant
Senator Thad Cochran
Senator Roger Wicker

US Army Corps of Engineers
Vicksburg District

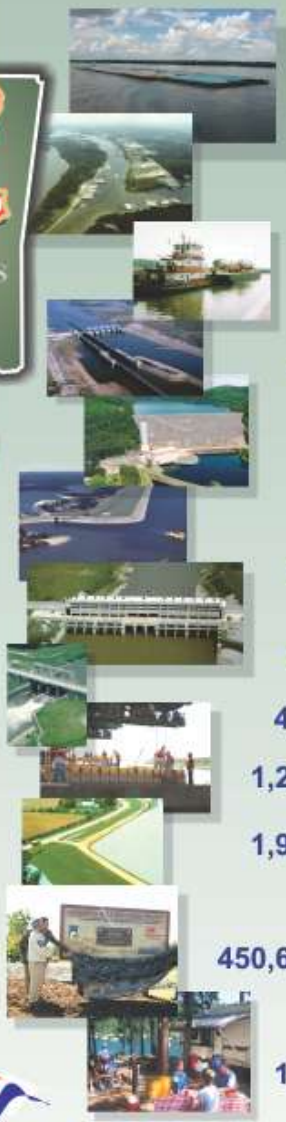
The Vicksburg District encompasses 68,000 square miles in Mississippi, Louisiana, and Arkansas. Seven major river basins fall into our jurisdiction including the mighty Mississippi, the Red, Ouachita, Pearl, and Yazoo Rivers. The District employs a diverse profile of professionals, over 1000 strong, divided between our Vicksburg, Mississippi headquarters and eleven field offices spread over all three states. Established in 1873, the District is a center of expertise for many engineering and environmental solutions and has been recognized as Vicksburg's second oldest business.

The Vicksburg District operates and maintains $2.3 billion in real property and projects, which in turn has generated both direct and indirect economic benefits for the nation.

These benefits are exclusive of the Regional MR&T projects like Mississippi River Levees and Mississippi River Channel Improvement. In Fy 13, Direct Annual Benefits to the economy from projects within the Vicksburg District contributed roughly $16 million for a total cumulative contribution of $302 million. Direct benefits include hydropower production, water supply, and collected fees.

The success of the MR&T projects has also led to substantial Indirect annual economic benefits contributing $827.7 million. Indirect benefits include flood damages prevented, transportation savings with our waterways, and recreation benefits. In FY 13, MR&T projects provided $655 million in flood damages prevented with cumulative benefits to date of $92.2 billion.

Vicksburg District Assets Include:



- **9** watersheds in Arkansas, Louisiana, and Mississippi including Bayou Meto, Big Black, Boeuf Tensas, Homochitto, Mississippi, Ouachita, Pearl, Red, and Yazoo
- **7** Mississippi River Ports handling over 8.5 million tons of cargo
- **5** Red River Ports handling over 1 million tons of cargo
- **12** locks and **9** dams on the Pearl, Red and Ouachita Rivers
- **3** Power plants capable of generating 168,500 kilowatts of electricity
- **10** Lakes with 1,673 miles of shoreline
- **21** Pumping plants
- **478** Flood control structures
- **1,252** Miles of navigable channel
- **1,910** Miles of levees, including 460 miles along the Mississippi River
- **450,603** Acres of project and mitigation lands are managed for forestry and wildlife enhancement
- **146** Recreation areas with 2,772 campsites and 1,529 picnic sites with estimated total visits of 8.1 million

Value to the Nation

Mississippi River

Benefits

Project	Average Annual Costs	Average Annual Benefits
Mississippi River and Tributaries	$210 Million	$1.46 Billion

Benefit-to-Cost Ratios

The current remaining (FY13) benefit-to-cost ratio for the MR&T system is 45.3 to 1 and likewise the total benefit-to-cost ratio for the system is 3.3 to 1 at the 7% interest rate. The benefit-to-cost ratios are based on annualizing the remaining and total benefits associated with the completed project and dividing them by the respective annualized cost to achieve these benefits. All project benefits and cost are annualized at the 7% interest rate over the economic life of the project. For the MR&T the economic life is 100 years.

Levees

Consists of raising, strengthening and extending levees to provide protection against flooding.

Did you know?

The Mississippi River from its confluence with the Ohio River to Baton Rouge, LA supported the transport of over 180 million tons of cargo in 2013!

Channel Improvement

Consists of stabilizing riverbanks in desirable alignment and obtaining the most efficient flow characteristics for flood control and navigation by revetments, dikes, foreshore protection and improvements. This improves navigation conditions, stabilizes bends, and reduces maintenance dredging requirements

Flood Risk Management

Flood risk management along the Mississippi River is provided through a coordinated system-wide water management program utilizing:

- Water storage reservoirs
- Levees
- Drainage Structures
- Channel Improvements
- Pumping Plants
- Weirs
- Sediment Reduction and Erosion Reduction Measures

Environmental Stewardship

The Corps has developed an environmentally sustainable project with the philosophy to avoid and minimize adverse environmental impacts. When impacts are unavoidable, compensation is made for the loss.

- The Corps has created over **6,700 acres of aquatic habitat** from borrow areas
- The Corps has **reforested at least 3,000 acres** of borrow areas
- The Corps has **reforested over 25,000 acres** of mitigation lands

Navigation

The Vicksburg District uses numerous tools to increase the safety and dependability of navigation on the Mississippi River.

- Dikes, revetments, and dredging are used to stabilize the navigation channel
- Channel Stabilization improves flow and reduces erosion
- The Vicksburg District supports two MR&T ports and five O&M ports

MR&T Ports

MR&T Port	2013 Commercial Tonnage	Jobs Sustained	Annual Payroll
Greenville, MS	3,474,197	540	$12,600,000
Vicksburg, MS	2,344,971	4,000	$80,000,000

O&M Ports

O&M Port	2013 Commercial Tonnage	Jobs Sustained
Rosedale, MS	1,340,001	325
Yellow Bend, AR	477,221	N/A
Lake Providence, LA	1,595,342	291
Madison Parish, LA	445,617	300
Claiborne Co., MS	N/A	N/A

Founded 1871 Vicksburg District Mississippi Valley Division

Value to the Nation

MISSISSIPPI RIVER

Ports

Port of Rosedale (RM 585)

2013 commercial tons - 1,340,001
Industries: esco Resource, Cives Steel, Jimmy Sanders Agricultural, Jantran Towing, APAC

32 RM

Yellow Bend Port (RM 554)

2013 commercial tons - 477,221
Industry: Bruce Oakley, Ark City Tank Storage, T.L. James, Producers Rice Mill

17 RM

Port of Greenville (RM 537)

2013 commercial tons - 3,474,197
Jobs sustained - 540
Major Industries: Entergy, ConAgra Fertilizer, APAC, Bunge, US Gypsum, Greenville Gravel, Scott Fertilizer, Superior Boat Works, Farmer Grain Terminal, Ergon, Greenville Shipbuilders, USCG - Patoka

53 RM

Lake Providence Port (RM 484)

2013 commercial tons - 1,595,342
Jobs Sustained - 291
Industries: Terral River Service, Bunge Corporation, Raley Transport

26.8 RM

Madison Parish Port (RM 457.2)

2013 commercial tons - 445,617
Jobs Sustained - 300
Industries: Mid Delta Terminal, Farm Chemical

20.2 RM

Port of Vicksburg (RM 437)

2013 commercial tons - 2,344,971
Jobs sustained - 4,000
Designated Foreign Trade Zone, Port of Entry - maintains a U.S. Customs Service
Major Industries: Anderson-Tully Lumber , Big River Shipbuilders, Bunge-Ergon, Citgo, ConAgra Fertilizer, Petroleum, DTE Petcoke, Ergon Marine & Industrial Supply, Ergon Refining, Falco Lime, Falco Chemical, Gavilon Fertilizer, Graham Packaging, Kinder Morgan Bulk Terminals, Magnolia Marine Transport, Neill Gas, Shell Oil, Quaker State, Polyvulc USA, Power Transport Service, Smith Towing A, Specialty Process Fabricator, US Coast Guard, Vicksmetal Armco, Waring Oil

Value to the Nation

Red River Watershed
J. Bennett Johnston Waterway

Cargo

Port	Types of Cargo
Caddo-Bossier	Aggregate, Coal, Steel, Fertilizer, Petrochemicals, Project Lifts
Red River Parish	Aggregate, Coal, Steel, Fertilizer, Petrochemicals, Project Lifts
Natchitoches	Aggregate, Forest Product, Asphalt
Alexandria Regional	Fertilizer, Military Cargo, Citric Acid, Aggregate, Petrochemicals
Avoyelles Parish	N/A-Emerging Port

Commodity Movements

Commodity	CY 2010 Short Tons	CY 2013 Short Tons
Crude Petroleum	264,710	422,478
Gasoline	334,057	244,827
Distillate Fuel Oil	397,486	680,747
Residual Fuel Oil	266,798	476,308
Nitrogenous Fertilizer	132,277	147,134
Alcohols	226,917	65,903
Ammonia	65,935	62,549
Sodium Hydroxide	135,114	98,852
Limestone	1,686,290	1,147,596
Sand & Gravel	726,082	1,006,236
Lime	11,251	35,060
Grains	217,884	453,650
Oilseeds	185,710	294,215

Did you know?

- The $1.9 billion Red River Waterway Project was completed in 1994
- **Five lock and dam complexes** provide a total lift of 140 feet the equivalent of a 14-story building
- The navigation channel has a minimum depth of 9 feet and a minimum width of 200 feet
- The U.S. Army Corps of Engineers operates and maintains the locks and dams and supervises bank stabilization and other enhancements
- Over **1.7 million visitors annually** take advantage of facilities offered by 22 recreation areas in 8 parishes along the waterway
- **Over 8,400 acres of mitigation lands** have been purchased to offset losses caused by project construction

Navigation

Port	2014 Commercial Tonnage	Jobs Sustained
Caddo-Bossier	684,799	7,550
Red River Parish	81,358	N/A
Natchitoches	70,268	291
Alexandria Regional	121,021	2,009
System	**2013 Commercial Tonnage**	**Jobs Sustained**
JBJ Waterway	8,893,112	N/A

Project Benefits

Benefits	Basic Project	With Gaming
Total injection (spending)	$ 4,629,600,000	$ 16,410,800,000
Total Sales	8,471,300,000	25,804,700,000
Total Earnings	2,770,200,000	8,110,000,000
Total Taxes	58,200,000	170,300,000
Total Jobs (average)	2,107	6,862

Volunteer Partners

Organization	Service Provided
City of Shreveport	*Operation and Maintenance of the Shreveport Regional Visitor Center*
Red River Parish Police Jury	*Mow and clean areas of Lock 4 East and West Recreation Areas*
City of Natchitoches	*Operation and Maintenance of the Grand Ecore Visitor Center*

Vicksburg District, Mississippi Valley Division, Founded 1871

Value to the Nation

Ouachita -Black Watershed

Commodity Movements

Commodity	CY 2010 Short Tons	CY 2011 Short Tons
Crude Petroleum	254,085	102,323
Gasoline	201,497	174,499
Distillate Fuel Oil	101,113	163,687
Nitrogenous Fertilizer	30,341	4,416
Ammonia	65,935	84,642
Sodium Hydroxide	106,250	82,146
Metallic Salts	36,997	11,390
Limestone	181,768	134,664
Grains	59,812	82,207
Oilseeds	78,161	95,521

Ouachita - Black Benefits

Benefit	Value
Transportation Savings	$1,100,000,000
Jobs Sustained	28,000
Annual Payroll	$325,000,000
Impact on Economy	$3,900,000,000
Taxes Paid	$180,000,000

Ports

Ports	Typical Cargo
Greater Ouachita	*Aggregates, oil, fuel, fabricated steel*
Columbia	*Cotton seed and grain*

Recreation

18 Corps recreational areas along the 4 pools of the Ouachita-Black Navigation Project with 700,000 visitors annually - facilities include:

- 18 boat ramps with 48 lanes
- 16 day-use areas
- 1 swimming beach
- Two Class A campgrounds outgranted to local governments

Environmental Stewardship

- Originally part of the project, the **65,000 acre** Felsenthal National Wildlife Refuge lies adjacent to the Ouachita River in Arkansas
- The **15,500 acre** D'Arbonne National Wildlife Refuge is located on Bayou D'Arbonne in Louisiana

Flood Risk Management

Watershed management is provided through a coordinated system-wide water management program utilizing:

- Water storage reservoirs with over 3.5 million acre-feet of capacity
- **Over 370 miles of levees** along the Ouachita River, and in the Tensas-Cocodrie, Larto Lake to Jonesville, Sicily Island and Below Red River areas
- **120 miles of channel** and tributary improvements along the Tensas River
- **5 pumping plants** of 300 cfs, 500 cfs, 750 cfs, 4,000 cfs, and 6,500 cfs

Navigation

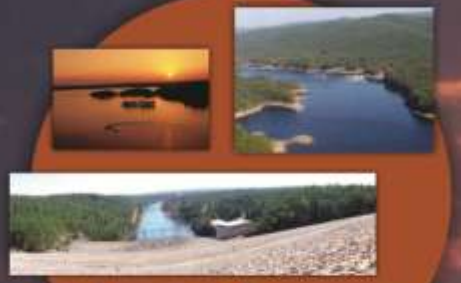
- **337-mile Ouachita-Black Navigation Project** provides for a 9-foot by 100-foot navigation channel from the mouth of the Black River to Camden, AR
- **4 Locks and Dams** to regulate pool height and pass navigation
- Project supports approximately **28,000 private sector jobs** with an annual **payroll of $325,000,000**

Water Supply

- Provides water supply for cities of Hot Springs, Malvern, Arkadelphia and Camden in Arkansas as well as Monroe, Louisiana
- Supplies water to nine major industries
- Provides water supply for crop irrigation

Value to the Nation

Arkansas Lakes



A Corps First!

DeGray Lake holds the distinction as the first "pump back capable" impoundment in the history of the Corps of Engineers. A re-regulation dam forms a 400-acre impoundment directly below the main lake that serves as a storage basin for pump back capable features. During designated times, i.e. drought, the 28,000 KW generator can be reversed pulling water out of the Lower Lake into the main lake to be utilized again for hydropower generation. The 400-acre Lower Lake also serves as an ideal waterfowl refuge.

Did you know?

- **Narrows Dam is the only "all concrete" dam in the Vicksburg District**
- **The 3 Arkansas Lakes support over 700 jobs and provide over $38,000,000 in economic benefits to local economies**

Blakely Mountain Dam - Lake Ouachita 1956

1,127,000 visits in 2012!

Located along the Ouachita River in central Arkansas and surrounded by the Ouachita National Forest, the dam is 1100 feet wide and 205 feet tall creating a lake 205 feet deep at the deepest level. The project includes 690 miles of shoreline, 40,000 acres of water and 20,000 acres of public land. Facilities include 18 recreation areas with 18 campgrounds, 7 day-use areas, 19 boat ramps and 10 swimming beaches.

DeGray Lake 1972

954,000 visits in 2012!

Located along the Caddo River in south central Arkansas, the mulit-purpose project includes 32,400 acres. DeGray Dam has a crest 3,400 feet wide and rises 243 feet above the river bed. The dam creates a lake 200 feet deep at its deepest level with 207 miles of shoreline. Facilities include 15 recreation areas with 8 campgrounds, 7 day use areas, 11 boat ramps and 8 swimming beaches.

Narrows Dam Lake Greeson 1950

366,000 visits in 2012!

Located along the Little Missouri River in southwest Arkansas, Narrows Dam is 941 feet wide and rises to a height of the mean valley. The lake created by the dam, Lake Greeson, stretches 2 miles in length and is 150 deep at its deepest level and has 134 miles of shoreline. The project contains over 16,000 acres with over 15,000 acres forested. Facilities include 17 recreation areas with 12 campgrounds, 7 day-use areas, 9 boat ramps and 6 swimming beaches.

Hydropower

Project	Generating Capacity
Blakely Mountain Dam - Lake Ouachita	75,000 megawatts
DeGray Lake	68,000 megawatts
Narrow Dam - Lake Greeson	25,500 megawatts

Economic Impacts

Project	Economic Impact
Lake Ouachita	$18,000,000
DeGray Lake	$14,000,000
Lake Greeson	$6,000,000

Value to the Nation

Yazoo River Watershed

Benefits

Project	Average Annual Costs	Average Annual Benefits
Upper Yazoo Projects	$17,373,000	$52,816,000
Delta Headwaters Project	$24,917,000	$24,917,000

Main Stem



Consists of new and enlarged levee improvements along the Yazoo, Tallahatchie, and Coldwater Rivers from Yazoo City to Prichard, MS; and channel clearing, cutoffs, and channel enlargement along the Yazoo, Tallahatchie and Coldwater Rivers.

Upper Yazoo Projects


Includes channel and levee features along the main channel of the Yazoo, Tallahatchie, and Coldwater Rivers from the vicinity of Yazoo City, MS to the vicinity of the confluence of Arkabutla Creek with the Coldwater River stabilization, and sediment / erosion control.

Delta Headwaters Project

Consists of 16 watersheds, ranging from 1 to 600 square miles, with features including bank stabilization; grade control structures; floodwater-retarding structures and channel modifications for flood risk management; bank stabilization; and sediment/erosion control.

Yazoo River Watershed

encompasses the delta area extending north from Vicksburg, MS to north of Clarksdale, MS and east from the Mississippi River to the hills east of Greenwood, MS. It consists of roughly 8,900 square miles including all or parts of 12 Mississippi counties. The watershed has an approximate length of 175 miles and an approximate width of 40 miles.

Flood Risk Management

Flood risk management in the Yazoo River Basin is provided through a coordinated system-wide water management program utilizing:

- 4 water storage reservoirs
- 202 miles of levees
- 103 drainage structures
- 583 miles of channel
- 1 Pumping plant
- 8 Weirs
- Sediment reduction projects
- Erosion reduction measures

Flood Damages Prevented

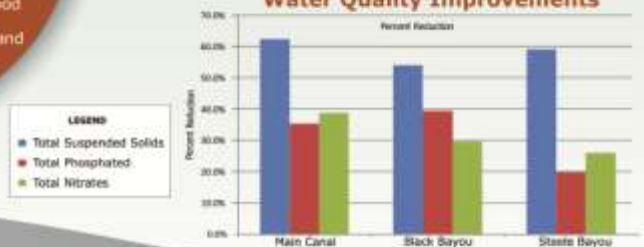
Area	FY 13 Flood Damage Prevented	Cumulative Flood Damage Prevented
Yazoo Backwater	$ 1,217,000	$ 99,311,000
Yazoo Headwaters	$13,093,000	$1,902,369,000
Mississippi Lakes	$ 9,034,000	$1,320,725,000
Big Sunflower River	$ 4,152,000	$ 417,369,000
Total Yazoo Basin	$27,496,000	$3,739,774,000

Environmental Stewardship

Since the early 1990s, the Vicksburg District has been involved with a flood control/sediment reduction project in the watershed which has dramatically improved water quality. Projects have included:

- Installation of low head weirs to maintain minimum water depths in channels
- Installation of 67 sediment control structures to prevent sediment from filling channels
- Water quality monitoring
- Large post-project reduction of in-stream suspended solids (TSS)

Water Quality Improvements



Founded 1873 Vicksburg District "The Mississippi Valley Division"

Value to the Nation

Mississippi Lakes

Benefits

Project	Average Annual Costs	Average Annual Benefits
Arkabutla Lake	$5,000,000	$33,000,000
Sardis Lake	$5,000,000	$34,000,000
Enid Lake	$5,000,000	$22,000,000
Grenada Lake	$5,000,000	$39,000,000

Economic Impacts

Project	Economic Impact	Jobs Supported
Arkabutla Lake	$14,400,000	224
Sardis Lake	$26,200,000	427
Enid Lake	$10,500,000	161
Grenada Lake	$49,930,000	742

Visitation

Project	2012 Visits
Arkabutla Lake	854,371
Sardis Lake	1,300,000
Enid Lake	569,395
Grenada Lake	1,821,815

Did you know?

- Over 4.5 million visits are made to the lakes' facilities each year.
- Visitor spending at the North Mississippi Lakes represents a sizable component of the economies of local communities surrounding the lakes.
- Visitors spend over $101 million annually with 52% being captured by local economies.
- Visitor spending supports the addition of over 1,500 jobs.

Arkabutla Lake – 1943

Located just 30 minutes from Memphis, TN and Tunica, MS, in Tate and DeSoto counties in north Mississippi, Arkabutla Lake covers over 11,000 acres and provides a variety of opportunities for all outdoor enthusiasts to enjoy. Facilities include picnic areas, campgrounds, biking, hiking and walking trails, boat trails, equestrian trails ADA fishing pier and playgrounds.

Sardis Lake – 1940

Sardis Lake stretches over 98,000 acres thru Panola, Lafayette and Marshal Counties in northwest Mississippi. Located approximately 1 hour from Memphis, TN and 30 minutes from the University of Mississippi, the lake is a popular destination for water-related recreation. Facilities include nine campgrounds, boat ramps, cabins, playgrounds and swimming beaches.

Enid Lake – 1952

Located approximately 1 mile off Interstate 55, 72 miles south of Memphis, TN, Enid Lake encompasses over 44,000 acres and is visited each year by more than 1.5 million visitors. Enid has been recognized as one of America's Top 10 Fishing Spots. Facilities include campgrounds, hiking trails, off-road vehicle trail, playgrounds, boat ramps and swimming beaches.

Grenada Lake – 1954

Located in the gently rolling hills of pine and hardwood at the entrance to the Mississippi Delta, The lake covers 36,000 acres and offers some of the best fishing opportunities in the southeastern United States, and most any kind of water activity imaginable. Facilities include campgrounds, boat ramps, fishing areas, shelters, playgrounds and swimming beaches.

Vicksburg District

Value to the Nation

Pearl River Watershed

Carthage

JACKSON

Levee Plan

Consists of raising, strengthening and extending levees to provide protection against flooding.

PEARL RIVER

Monticello

Columbia

Bogalusa

Picayune

The Pearl River originates in Neshoba County, MS and meanders approximately 444 miles to empty into Lake Borgne. The Pear River Watershed covers some 8,760 square miles and includes all or parts of 23 Mississippi Counties parts of 3 Louisiana Parishes.

Flood Risk Management

The Jackson (Fairgrounds) and East Jackson levees were completed in 1968 by the Corps. These protective works consist of two earthen levees, four gated outlets, and two pumping stations. Some 5.34 miles of river channel work was involved in constructing the plan. The Fairgrounds levee protects 420 acres in the fairgrounds area of Jackson on the west side of the river. The longer East Jackson levee protects 5,870 acres, including the town of Pearl and portions of Flowood and Richland. This project was sponsored by the Rankin-Hinds Pearl River Flood and Drainage Control District, which presently operates and maintains the levees. In 1984, an extension on the north end of the Fairgrounds levee was constructed to eliminate flanking of the levee.

Clearing of the floodway below the levee in Jackson was identified as an early action item to reduce Jackson flooding following the 1979 flood. The clearing plan, which was completed in 1984, extended from about 0.5 mile below the old Jackson sanitary landfill to Woodrow Wilson Bridge, a total of 3.3 river miles. The plan consisted of 237 acres of complete clearing, 20 acres of selective clearing, and 89 acres of partial clearing. To offset unavoidable impacts to fish and wildlife associated with the clearing plan, approximately 320 acres of bottomland hardwood were acquired as mitigation. The Pearl River Basin Development District isthe local sponsor

In 2012, the Rankin-Hinds Pearl River Flood and Drainage Control District initiated a Section 211 Flood Risk Management Study to evaluate additional flood risk management alternatives for the Jackson, MS area. The study is funded 100 percent with non-Federal funds.

Environmental Stewardship

In all aspects of natural and cultural resources management, the Corps promotes awareness of environmental values and adheres to sound environmental stewardship, protection, compliance and restoration practices. The Corps manages for long-term public access to, and use of, the natural resources in cooperation with other Federal, State, and local agencies as well as the private sector.

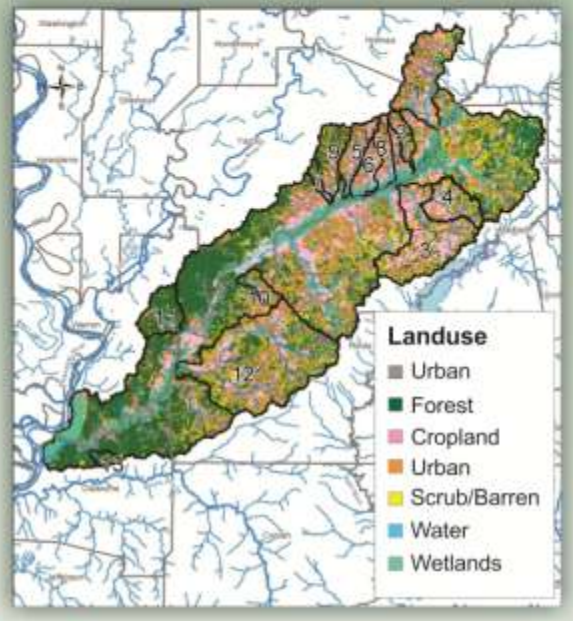
In late summer and early fall, virtually all of the Pearl River flow was captured by an area known as Wilson Slough. This left the main channel of the Pearl River in the vicinity of Walkiah bluff completely dry in some locations leaving property owners and local citizens with no opportunity to enjoy the benefits of the river. For more than 20 years, locals tried to get a project to restore flows in the vicinity of Walkiah Bluff. Using an authority established by Congress in 1990 which provided for environmental wetland restoration the Corps began the Pearl River, Walkiah Bluff Flow Distribution Project. The project was designed to restore flows in the Pearl River and once again make it a viable resource for both Mississippi and Louisiana.

Value to the Nation

Big Black River Watershed

Authority needed to combat flooding, erosion, and sedimentation problems which leads to streambank caving, loss of fish and wildlife resources, poor water quality and adds to problem of Gulf Hypoxia Zone.

Land Use in the Basin



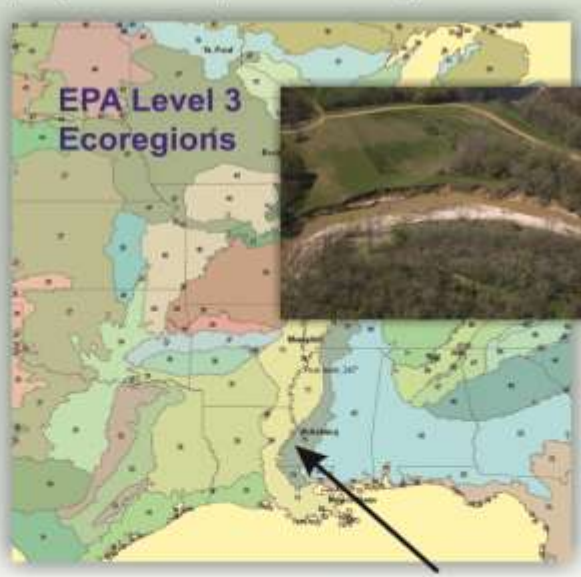
Environmental Stewardship

Nonpoint loading of sediment in a water body results from the transport of the material into receiving waters by the processes of mass wasting, head cutting, gullying, and sheet and rill erosion. Sources of sediment include:

- Agriculture
- Silviculture
- Rangeland
- Construction sites
- Roads
- Urban areas
- Mass wasting areas
- Gullies
- Surface mining
- In-channel and instream sources
- Historical landuse activities and channel alterations

Value to the Nation

Southwest Tributaries



Mississippi Loess Plain 74

The basin comprises a drainage area of approximately 3,200 square miles. All or parts of nine counties in southwestern Mississippi are included – Adams, Amite, Claiborne, Copiah, Franklin, Hinds, Jefferson, Lincoln, and Wilkinson. The basin extends in a north-south direction approximately 60 miles from just north of Port Gibson, MS, t o the vicinity of the Mississippi-Louisiana state line on the south; it extends in an east-west direction approximately 55 miles from the Mississippi River on the west to Interstate 55 on the east. Three major streams---Buffalo River, Homochitto River, and Bayou Pierre drain most of the area and flow directly into the Mississippi River.

Environmental Stewardship

Seeking authority to combat flooding, erosion, and sedimentation problems which leads to streambank caving, loss of fish and wildlife resources, poor water quality and adds to problem of Gulf Hypoxia Zone.

Utica
HINDS
55
Bayou
Pierre
Crystal Springs
Port Gibson
CLAIBORNE
Hazlehurst
JEFFERSON
COPIAH
Fayette
LINCOLN
61
Natchez
Roxie
FRANKLIN
ADAMS
Meadville
Mississippi
Homochitto
River
Crosby
Buffalo
River
WILKINSON
Woodv
Centreville

Value to the Nation

Bayou Meto

The project area includes Lonoke, Jefferson, Prairie, Arkansas, and Pulaski Counties and involves the study of 1,350 square miles in a 433,166 acre Improvement Project Area (IPA) with 369,874 acres of irrigated cropland.

Jacksonville
Sherwood
Lonoke
40
70
PULASKI
LONOKE
PRAIRIE
Bayou Meto
Two Prairie Bayou
England
165
Stuttgart
Wabbaseka
79
ARKANSAS
JEFFERSON
Altheimer
Bayou Meto

Pump Station No. 1/Reservoir

A pump station that takes excess surface water from the Arkansas River, pumps it up into a reservoir to utilize gravity flow, and puts it into a delivery system for irrigation use.

Little Bayou Meto Pump Station

A pump station that evacuates water from the Bayou Meto Basin and reduces flood damage on farmland and stress to bottomland hardwood forests that benefit waterfowl.

Continuing Authorities Program Section 205

SMALL FLOOD CONTROL PROJECTS of the Flood Control Act of 1948

Provides for local protection from flooding by the construction or improvement of flood control works.

Flood Risk Management

The project includes a pump station to evacuate water from the Bayou Meto Basin and reduces flood damage on farmland and stress to bottomland hardwood forests that benefit waterfowl management.

Jacksonville and Sherwood, AR have requested participation in individual Section 205 projects designed to assist with small flood control projects which will improve Flood Risk Management potential for the communities.

Environmental Stewardship

The project area includes 10,000 acres of herbaceous wetland complexes, along with riparian buffers and improvements to the Bayou Meto Wildlife Management Area to provide environmental restoration and enhancement features.

Water Supply

The project has features which divert excess water from the Arkansas River via a delivery system that contains pump stations, incorporates a system of new canals, existing streams, and pipelines to deliver water to depleted areas.

Project Features:

107 Miles of New Canal

1,750 CFS Pump Station

Riparian Buffers

128 Miles of Channel Work

10,000 Acres of Herbaceous Wetland Complexes

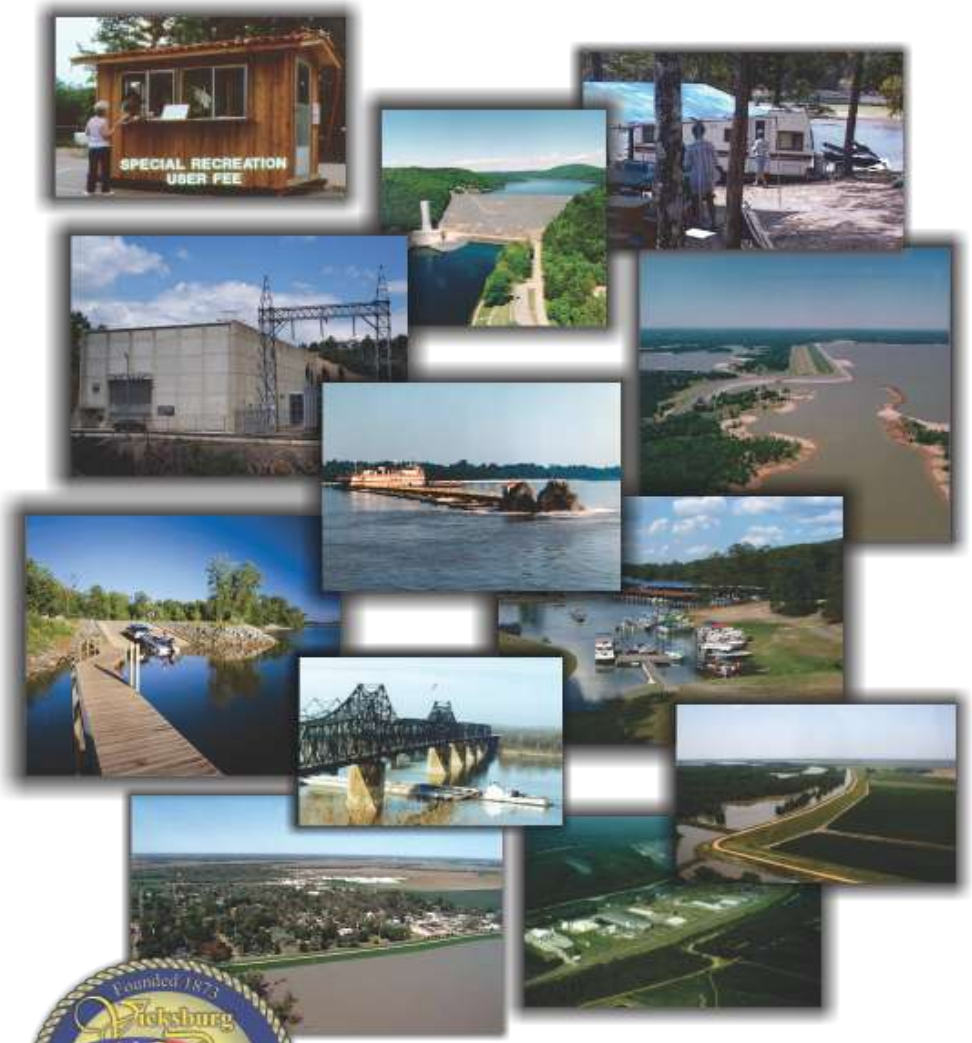
132 Miles of Ditch Enlargements

465 Miles of New Pipeline

Vicksburg District

Value to the Nation

Vicksburg District Economic Benefits



From a program of $150M, the Vicksburg District returns these economic benefits!

Annual Direct Economic Contributions

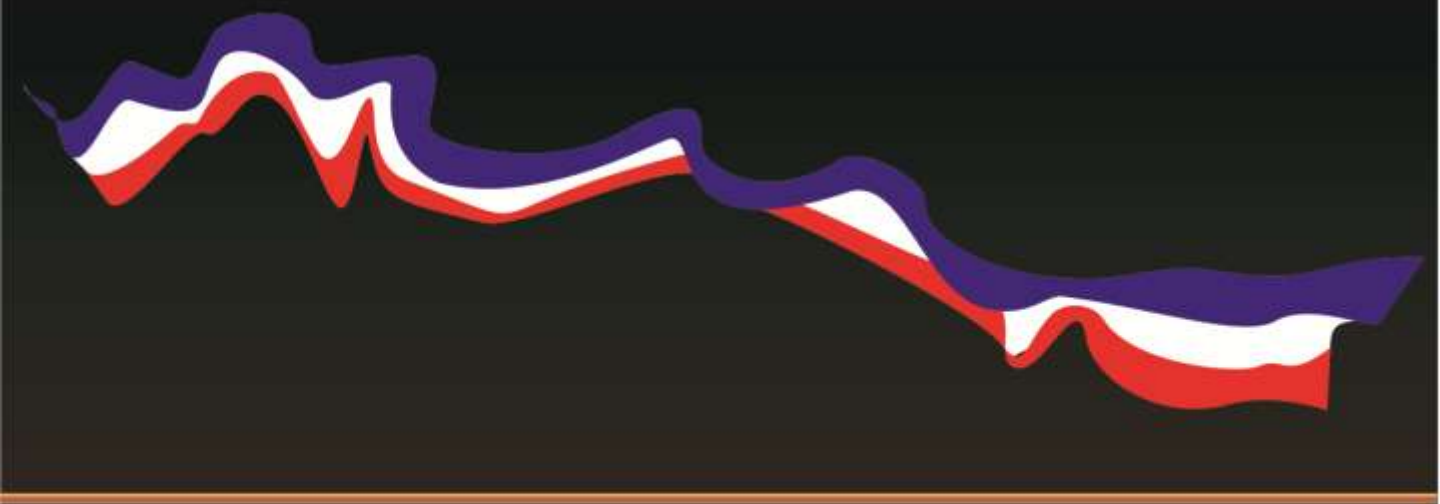
Fees Collected	$ 1,992,000
Agricultural	$ 576,000
General Leases and Concessions	$ 413,000
Water Supply Payments	$ 1,092,000
Hydropower	$ 12,000,000
Total Direct Contributions	**$ 16,073,000**

Indirect Economic Contributions

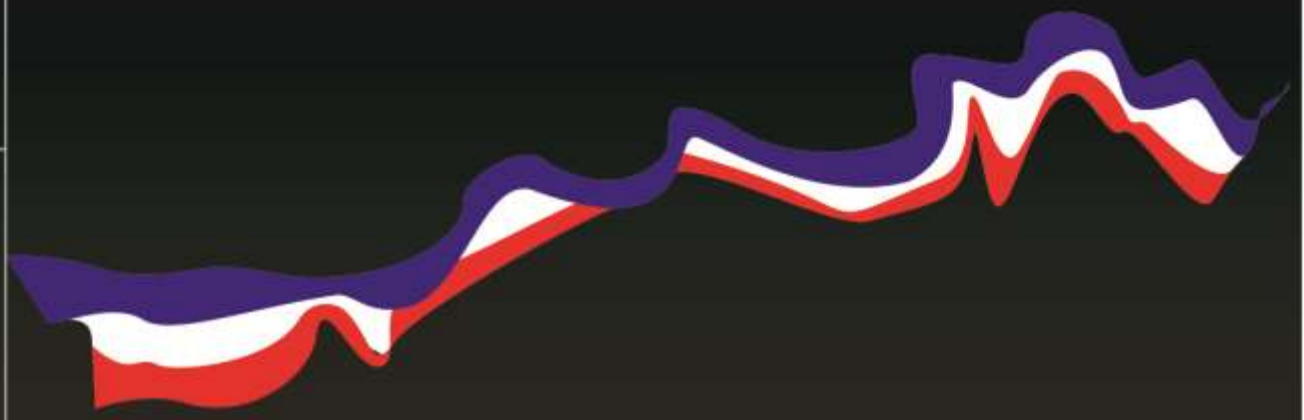
Flood Damages Prevented	$ 654,988,000
Recreation	$ 49,763,000
Water Supply Benefits	$ 115,792,000
Navigation Savings	$ 125,020,000
Total Indirect Contributions	**$ 945,563,000**

Value to the Nation

FUNDING INFO



FUNDING INFO

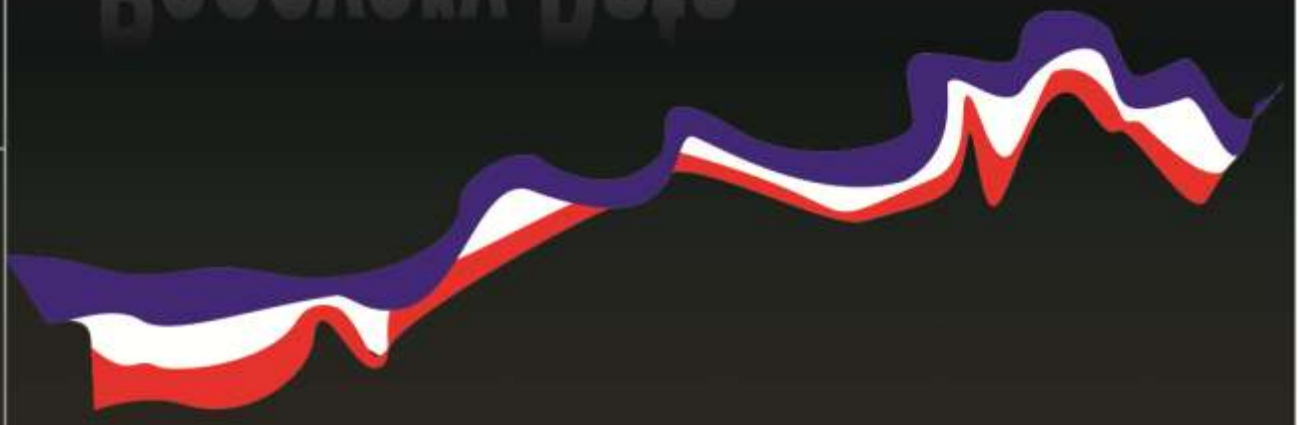


Cong Distr	Approp/Project	FY 15 Allocation	FY 16 President's Budget	Additional Capability Needs	FY 16 TOTAL CAPABILITY	FY 16 WORK WHICH COULD BE ACCOMPLISHED WITH ADDITIONAL FUNDS
Investigation						
LA-1,MS-4	Pearl River Navigation, LA and MS	0	0	**1,250,000**	**1,250,000**	Initiate feasibility to dispose.
Total Investigation						
Construction						
AR-4,LA-4,5	Red River Below Denison Dam	0		1,700,000	**1,700,000**	Fully fund Levee Item 9A Phase 2, rehabilitation of levee to meet new Post-Katrina levee standards. Work to include design, construction as well as project oversight, real estate activities, and environmental compliance. Fully fund construction of gravel surfacing for Louisiana levees.
AR-4, LA-4	Red River Emergency	0		7,000,000	**7,000,000**	As a result of the 2015 flood Stone Bank Paving sites have been identified near Garland City, AR, River mile 267 and River Mile 327 on the Red River. This includes approximately 130,000 tons of rock, mobilization and demobilization, E&D and S&A.
LA-4,5	JBJWW, MS River to Shreveport	0		17,655,000	**17,655,000**	Improvements on Overton L&D Lower Approach ($8,960.0); to continue land acquisition and development for project mitigation ($1,700.0); Alexandria Front Dike field reinforcement ($2,250.0); Sedimentation Survey ($800.0); Sedimentation Study and Hydraulic Model ($700.0); Riverfront development at Grand Ecore Phase II ($2500.0). Construct handicap assessible fishing pier ($500.0) and Complete Economic Update ($245.0)
LA-5	Ouachita River Levees	0		5,900,000	**5,900,000**	Complete Gravel surfacing of levees below Monroe, LA, Phase IV ($5,900.0)
Total Construction		**0**	**0**	**32,255,000**	**32,255,000**	
Operation and Maintenance						
LA-4	Bayou Bodcau	1,273,600	1,221,000	643,000	**1,864,000**	Slide repairs ($250.0); removal of trees/repair erosion for drainage canal from Spillway ($250.0); Environmental Stewardship Work ($24.0); Dam Safety requirements ($69.0); raise customer service to desireable levels for the visiting public and local residents ($50.0)
LA-4	Bayou Pierre	22,770	23,000		**23,000**	
LA-4	Caddo Lake	203,210	209,000	188,000	**397,000**	Dewatering-repair concrete in stilling basin, repair seal between monolith 1& 2 ($150.0) and restore service to desirable levels for the visiting public and local residents ($38.0)
AR, LA, MS	Insp of Completed Works	505,680	512,000		**512,000**	
LA-4,5	J Bennett Johnston WW	15,185,400	8,782,000	20,395,000	**29,177,000**	Fully fund Maintenance Dredging ($2,400.0); Additional dredging due to sedimentation from flood ($3,000.0); Scour repair due to flood ($2,100.0); Stone repair for Pools 1-5 due to flood ($9,000.0); Replace and repair dike markers due to flood ($1,300.0); Erosion control at Grand Ecore visitor center ($800.0); backlog maintenance items ($1,495.0); fund visitation areas & visitor centers that are not funded with initial and sustaining packages ($300.0)
LA-5	Lake Providence Harbor	931,100	14,000	1,185,000	**1,199,000**	Fully fund maintenance dredging.
LA-5	Madison Parish Port	419,700	4,000	146,000	**150,000**	Fully fund maintenance dredging.
	NEPP	311,500	147,000	28,000	**175,000**	Fully fund NEPP activities
AR-4,LA-5	Ouachita & Black Rivers-Navigation Project	11,638,200	8,076,000	6,178,000	**14,254,000**	Fully fund dredging ($2,000.0); maintenance on tainter gates ($1,600.0); raise customer service to desirable levels for the visiting public and local residents and repair/update recreation areas ($2,000.0); Replace ladders, handrails, and miter gates identified by OCA ($421.0); backlog maintenance items ($157.0)
LA-4	Wallace Lake	374,200	226,000	86,000	**312,000**	Dam safety requirements ($76.0), fully fund Recreation items ($10.0)
Total Operation and Maintenance		**30,866,560**	**19,214,000**	**28,849,000**	**48,063,000**	
Regulatory Functions		**3,877,400**	**3,803,000**	**0**	**3,803,000**	
Flood Control & Coastal Emergency		**406,000**	**504,100**	**0**	**504,100**	
	SUBTOTAL REGULAR APPROP	**35,149,960**	**23,521,100**	**61,104,000**	**84,625,100**	
MR&T Investigations						
AR, LA, MS	Collection & Study of Basic Data	9,280,000	9,334,000	2,600,000	**11,934,000**	Preservation of data, maps, and aerial photographs ($2,000); Aquatic/Water Quality Monitoring ($600.0)
Total MR&T Investigations		**9,280,000**	**9,334,000**	**2,600,000**	**11,934,000**	
MR&T Construction						
AR, LA, MS	Mississippi River Levees	25,588,100	5,070,000	18,125,000	**23,195,000**	Leland--Vaucluse, AR, Item 536-R Phase I ($9,000.0), Magna Vista--Brunswick, MS, EB Paving, Items 468-L/463-L ($4,750.0), Willow Point-Youngs Point, LA, Item 457-R Relief Wells ($1,875.0) and continued engineering design for future construction ($2,000.0). Supplemental Environmental Impact Statement Development ($500.0).
AR, LA, MS	Channel Improvement(Dikes Const.)	3,270,000	1,076,000	12,000,000	**13,076,000**	Fully fund dike construction at Arconia Chute, AR ($3,000.0), and Refuge, MS ($2,700.0); and Refuge Dike Turndowns ($6,300.0)
AR, LA, MS	Channel Improvement(Revt Const.)	13,330,000	17,070,000	11,720,000	**28,790,000**	Design a new Articulated Concrete Mat Sinking Unit ($5,000.0); Reinforcement sinking to maintain existing revetments ($6,720.0)
Total MR&T Construction		**42,188,100**	**23,216,000**	**41,845,000**	**65,061,000**	
MR&T Maintenance						
AR-4,LA-5	Boeuf & Tensas Rivers	2,758,900	2,589,000	3,970,000	**6,559,000**	Repairs for two impeller bell housings/cones ($400.0);upgrade cranes ($920.0); replace Big Bayou Weir $695.0); design replacement for Big Bayou weir at 13.92 ($400.0); inspect underslab and backfill drains at Lake Chicot Pumping plant ($350.0); and backlog maintenance items ($1,205.0)
AR, LA, MS	Dredging Maint	4,518,000	5,023,000	0	**5,023,000**	

Coeg Distr	Approp/Project	FY 15 Allocation	FY 16 President's Budget	Additional Capability Needs	FY 16 TOTAL CAPABILITY	FY 16 WORK WHICH COULD BE ACCOMPLISHED WITH ADDITIONAL FUNDS
Investigation						
AR, LA, MS	Insp of Completed Works	671,000	371,000	483,000	**854,000**	Current Levee Safety requirements include more detailed inspections.: Includes 463 miles of levees, 516 miles of channels, 125 drainage structures, 1 pumping plant & 15 weirs ($308.0); 408 Permits ($50.0); Annual Inspections for DHP ($75.0); Levee safety inspections MS ($50.0)
LA-5	Lower Red River, South Bank	398,800	498,000	150,000	**648,000**	Gravel surfacing required for all weather traversing of levee crown ($150.0)
AR, LA, MS	Mapping	302,000	399,000	0	**399,000**	Additonal mapping assistance for work in the CADGIS topographic/hydrographic or geospacial areas.
AR, LA, MS	Mississippi River Levees	3,139,000	2,331,000	3,055,000	**5,386,000**	Repair of levee slides ($1,200.0); Operation of Lower Mississippi River Museum ($80.0); Operation and Maintenance of Mitigation Lands ($225.0); gravel levee surfacing ($650.0); Design and Replace Exhibits at JBLMRM ($500.0); Maintenance of JBLMRM ($100.0); Walkway covering between JBLMRM and MVIMS Exhibit ($300.0)
AR-1,4	North Bank, Arkansas River	225,600	294,000	300,000	**594,000**	Place stone on levees for inspection and emergency purposes ($300.0).
LA-5	Red River Backwater	3,861,400	3,345,000	1,250,000	**4,595,000**	Repair levees and structures ($500.0); Construction of Larto Lake-Jonesville Levee Setback and Berm ($750.0)
AR, LA	Red-Ouachita Basin Levees	0		500,000	**500,000**	Repairs to deficiencies affecting levee stability and further investigation of other issues along the levee/floodwall ($500.0)
AR, LA, MS	Channel Improvement (Revetments & Dikes)	15,052,000	15,016,000	11,900,000	**26,916,000**	Fully fund stone repairs, stone bank paving, and additional revetment repairs. ($9,900.0); dike repair ($2,000.0)
Total MR&T Maintenance		**30,924,900**	**29,866,000**	**21,608,000**	**51,474,000**	
	SUBTOTAL MR&T APPROP	**82,393,000**	**62,416,000**	**66,053,000**	**128,469,000**	
TOTAL ALL APPROPRIATIONS		**117,542,960**	**85,937,100**	**127,157,000**	**213,094,100**	
	Investigations	9,280,000	9,334,000	2,600,000	**11,934,000**	
	Construction	42,168,100	23,216,000	74,100,000	**97,316,000**	
	Maintenance	61,791,460	49,080,000	50,457,000	**99,537,000**	
		113,259,560	81,630,000	127,157,000	**208,787,000**	

2015 Red River Flood Recovery Data

2015 Red River Flood Recovery Data



US Army Corps of Engineers
Vicksburg District

Information Paper
Repair Scour Hole at L&D #3

2015 RED RIVER FLOOD RECOVERY

Contacts
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OVERVIEW

DISTRICT: Vicksburg District
TYPE: Hired Labor O&M work
RM: L&D #3
FRAGO CLASS: 3b
RISK: Failure upper lock wall
REPAIR: Repair of scour hole at upstream lock wall
EST. REPAIR COST: $2.1M

Damage Assessment
An existing scour hole on the river side of the upstream lock wall at L&D #3 appears to have significantly increased in size and scope based on observations of the current patterns in this location. The method of correction will be to restore the grade with stone of sufficient size to resist further erosion.

Risk and Consequence
The failure of the lock wall at L&D #3 would be catastrophic for the waterway because L&D #3 provides access to the upper one-half of the waterway. If this happens the waterway would be unavailable to commercial and recreational traffic to all of Northwest Louisiana.

Figure 1. OD-RC equipment performing similar work in a small river environment

Critical Repairs
Preliminary Reset recommendation: Survey the extent of the scour hole and repair with stone purchased through the CEMVK IDIQ contract for rock.

Special Considerations
N/A

Schedule
The estimated construction duration is anticipated to take 120 days from the Start date.

Acquisition Strategy
The CEMVK Maintenance Section has the equipment and expertise to accomplish this task in-house.

US Army Corps of Engineers
Vicksburg District

Information Paper
Equipment Repair & Replacement

2015 RED RIVER FLOOD RECOVER

Contacts
Thomas L. Hengst, MVK Navigation BLM
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Thomas.L.Hengst@usace.army.mil

OVERVIEW

DISTRICT: Vicksburg District
TYPE: Hired Labor O&M work
RM: L&D #1 - L&D #5
FRAGO CLASS: 3b
RISK: Replace damaged equipment and wiring
REPAIR: Repair/replacement equipment and controls
EST. REPAIR COST: $700K

Damage Assessment
The cable trays for the locks and dams were not designed to be flooded; block-outs through the lock walls for the wiring to enter the cable trays were never sealed during the construction of the L&Ds. CEMVK will determine the best method to accomplish sealing the block outs. All wiring and electrical control panels need to be replaced due to inundation. All sump pumps were damaged by sediment build up when the galleries flooded, and need to be replaced.

Risk and Consequence
Sump pumps are currently direct wired and operated manually. Flood-proofing activities must be completed to prevent this type of damage in future events.

Figure 1. Gallery of L&D #5

Critical Repairs
Preliminary Reset recommendation: Waterproof block outs for conduit entry into cable trays. Replace wiring, electrical controls, damaged pumps, and equipment inundated by flood waters.

Special Considerations
N/A

Schedule
The estimated construction duration is anticipated to take 120 days from the Start date.

Acquisition Strategy
The acquisition strategy is to perform all work using OD-RC employees.

US Army Corps of Engineers
Vicksburg District

Information Paper
Channel Dredging

2015 RED RIVER FLOOD RECOVER

Contacts
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OVERVIEW

DISTRICT: Vicksburg District
TYPE: Channel Dredging
RM: RM 0.0 to RM 235.0
FRAGO CLASS: 3b
RISK: Closure of waterway to commercial traffic
REPAIR: Additional Channel Dredging
EST. REPAIR COST: $3.0M

Damage Assessment
Based on a thalwag profile performed as the crest of the 2015 flood moved downstream, MVK has determined that it will take all of the $3.4M available in the current dredging contract plus $3M for the following:

1. $1.0 M to re-establish the navigation channel from L&D #1 to the head of navigation above L&D #5. This includes restoring the approaches to each L&D and 9'X200' authorized channel in the 5 pools of the waterway.
2. $1.5M to maintain the part of the waterway known as the "Gauntlet" during the "low-water season" on the Mississippi River, since the stages on the Mississippi River directly affect the amount of water in the Red River below L&D #1. It has historically required the majority of the dredging funds for the JBJWW to maintain this area.
3. "Oxbow" lakes in the pools of the waterway were scheduled to have their entrances dredged in FY 2015 and require $0.5 M. The scheduled funds were used during the flood fight, to restore lock operation.

Risk and Consequence
If the shoaling in the J. Bennett Johnston Waterway is not dredged to provide the authorized width & depth, the waterway will be rendered unusable to commercial traffic and effectively be removed from service to the public. The estimated value of the lost business and recreational activities on the waterway during the event is $7.2 M of which $3.6 M was in lost revenue from recreation. This occurred during approximately 1.5 months of peak commercial and recreational traffic on the waterway. This translates into ~$4.8M of lost commercial and recreational revenue to the northwest region on Louisiana for each month that the J. Bennett Johnston Waterway is not available at its authorized width & depth.

Figure 1. Contract Dredge

Critical Repairs
Preliminary Reset recommendation: Dredging with a minimum 22" cutter head dredge

Special Considerations
The funds requested for dredging the cutoff "Oxbow " lakes as authorized in the establishment legislation should not bear on the need for main channel waterway dredging.

Schedule
The estimated construction duration is anticipated to take 110 days from the award date.

Acquisition Strategy
The acquisition strategy is to advertise this recommended repair via low bid contract.

US Army Corps of Engineers
Vicksburg District

Information Paper
Grand Ecore Visitor Center – Bank Stabilization

2015 RED RIVER FLOOD RECOVERY

Contacts
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OVERVIEW

FRM PRIORITY: District: Regional:
DISTRICT: Vicksburg District
TYPE: Visitor Center
PROJECT: J. Bennett Johnston Waterways
FRAGO CLASS: IIIb
RISK: PMF-Failure- 0 PAR and Total expected property damage from a PMF fail event is $2,500,000
REPAIR: Install a toe dike with tie backs into the bank, address overbank drainage to divert water away from the bluff.
EST. REPAIR COST: $800,000

Damage Assessment
Grand Ecore Visitor Center is located outside the city limits of Natchitoches, Louisiana at mile 152.5 on the Red River and was constructed in 2003. The visitor center was constructed on the bluff overlooking the river and has begun to experience issues with erosion causing the loss of a gazebo. The bluff will continue to erode if left untreated which could eventually lead to the loss of the overlook fence and picnic area and possibly affect the stability of the foundation of the visitor center. Stabilization of the bluff could prevent costly repairs to the grounds and facilities over the long run and increase visitor safety.

Figure 1: Grand Ecore Visitor Center

Risk and Consequence: PMF-Failure- 0 PAR and Total expected property damage from a PMF fail event is $2,500,000

Critical Repairs
Work will include installing a toe dike and two tie backs into the bank using 10 tons of stone per foot to protect the bank during high water events. Overbank drainage will also need to be addressed to direct water from the top bank of the bluff to prevent erosion.

Special Considerations

Schedule
RTA – Work will be completed by Contractors

Acquisition Strategy
NA

US Army Corps of Engineers
Vicksburg District

Information Paper
Stone Repair, Dikes & Revetments

2015 RED RIVER FLOOD RECOVERY

Contacts
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Thomas.L.Hengst@usace.army.mil

OVERVIEW

DISTRICT: Vicksburg District
TYPE: Channel Dike & Revetment Repair
RM: RM 0.0 to RM 235.0
FRAGO CLASS: 3b
RISK: Loss of Channel Alignment
REPAIR: Repair of damage to numerous dikes and channel revetments
EST. REPAIR COST: $9.0M

Damage Assessment
There are 1.4M linear feet (270 miles) of revetment and dikes in pools 1-5 of the JBJ Waterway. Two sites, Douglas Island Revetment and A.R. Teague Pkwy near Shreveport, have been identified as being heavily damaged during the flood event. Due to high river stages the additional damage downstream is estimated assuming similar damage has occurred in other locations with the same river conditions. The cost estimate includes over 200,000 tons of rock, mobilization, demobilization, E&D, and S&A.

Risk and Consequence
The failure of the dikes and revetments would be catastrophic for the waterway. These structures are in place to establish the authorized width and location of the navigation channel. Ensuring the channel is maintained at its current location is vital for commercial and recreational traffic to all of Northwest Louisiana. Channel migration to another location would result in additional dredging therefore increasing the cost,

Figure 1. Similar Repairs on the JBJWW

Critical Repairs
Preliminary Reset recommendation: Survey the extent of the dike & revetment damage and restore the channel dimensions with stone of sufficient size to resist further erosion.

Special Considerations
N/A

Schedule
The estimated construction duration is anticipated to take 200 days from the award date.

Acquisition Strategy
The acquisition strategy is to advertise this recommended repair via low bid contract.

US Army Corps of Engineers
Vicksburg District

Information Paper
Tainter Gate Repairs at L&D #1(Boggs)

2015 RED RIVER FLOOD RECOVERY

Contacts
Thomas L. Hengst, MVK Navigation BLM
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Thomas.L.Hengst@usace.army.mil

OVERVIEW

DISTRICT: Vicksburg District
TYPE: Hired Labor O&M work
RM: L&D #1(Boggs)
FRAGO CLASS: 3b
RISK: Failure of Tainter Gates
REPAIR: Repair/of five Tainter Gates
EST. REPAIR COST: $350K

Damage Assessment
Tainter gates are not designed to be overtopped. Five gates at L&D #1 could not be raised completely out of the water during the flood. Additional damages to the five tainter gates are expected due to waterborne debris, and the sheer volume and velocity of water cascading on to the backs of the tainter gates. The extent of additional damage will be determined when stages recede to a point where the gates are visible. Estimated repair costs are $350,000.

Risk and Consequence
Tainter gates at L&D #1 (Boggs) were inoperable through their complete range of motion causing higher stages during the flood event. Failure of the tainter gates would be catastrophic for the waterway because L&D #1 is the first L&D on the waterway and without it, the rest of the waterway would be unavailable to commercial and recreational traffic.

Figure 1. Previous repairs to Tainter Gates at L&D #1 (Boggs)

Critical Repairs
Preliminary Reset recommendation: Repair damage incurred to the tainter gates during the flood event.

Special Considerations
N/A

Schedule
The estimated construction duration is anticipated to take 120 days from the Start date.

Acquisition Strategy
The acquisition strategy is to perform all work using OD-RC floating plant and employees.

US Army Corps of Engineers
Vicksburg District

Information Paper
Dike Marker Replacement

2015 RED RIVER FLOOD RECOVERY

Contacts
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Thomas.L.Hengst@usace.army.mil

OVERVIEW

DISTRICT: Vicksburg District
TYPE: Hired Labor O&M work
RM: RM 0.0 to RM 235.0
FRAGO CLASS: 3b
RISK: Damage to commercial towing, recreational vessels, and to the dikes.
REPAIR: Repair/replacement of Dike Markers
EST. REPAIR COST: $800K

Damage Assessment
A total of 54 dike markers were installed by the Vicksburg District in an effort to prevent commercial and recreational traffic from colliding with training dikes, especially when the dikes are below the surface in high water events. Due to current flood waters and increased velocities, 11 of 54 markers are missing completely and the other 43 markers need repairs.

Risk and Consequence
The dike markers were installed and have been maintained by CEMVK in an effort to prevent commercial and recreational vessels from being damaged or damaging the training dikes on the JBJWW during stages when the dikes are submerged.

Figure 1. Dike Markers upper left corner

Critical Repairs
Preliminary Reset recommendation: Replace missing dike markers with new staffs and pendants and straighten and replace pendants as required on those that are leaning

Special Considerations
N/A

Schedule
The estimated construction duration is anticipated to take 30 days from the Start date.

Acquisition Strategy
The acquisition strategy is to perform all work using OD-RC floating plant and equipment.

US Army Corps of Engineers
Vicksburg District

Information Paper
Hydraulic Modeling and Sediment Study
2015 RED RIVER FLOOD RECOVERY

Contacts
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Katy.breaux@usace.army.mil

OVERVIEW

DISTRICT: Vicksburg District
TYPE: Hydraulic Modeling and Sediment Study
RM: RM 0.0 to RM 368.0
FRAGO CLASS: IIIb
RISK: Without proper analysis and modeling, there could be higher than historical stages at given flows.
EST. REPAIR COST: Red River Surveys from Index gage to ACME gage ($800K). Sedimentation studies and Modeling of the Red River within MVK ($250K), Hydraulic Unsteady HEC-RAS modeling for flood conditions ($450K),

Damage Assessment
The J. Bennett Johnston Waterway (JBJWW) at Shreveport, during the 2015 flood, experienced higher stages than expected at observed flows. This caused the crest forecast to be changed several times. It is unclear at this time if this is a result of sediment deposition, floodplain encroachment, seasonal change in channel roughness, changes in discharge measurement techniques, or other variables. At present, the waterway has not had any sedimentation studies (type of modeling) or modeling completed, since the JBJWW project was completed. A study would be required to determine the cause of changes in the stage-flow relationships as well as provide better data to the NWS for future flood forecasting.

Risk and Consequence
Local residents and emergency managers of Northwest Louisiana and Southwest Arkansas depend on historical information and water levels for evacuation preparation and emergency management. Without an updated model, there is no basis to provide this information.

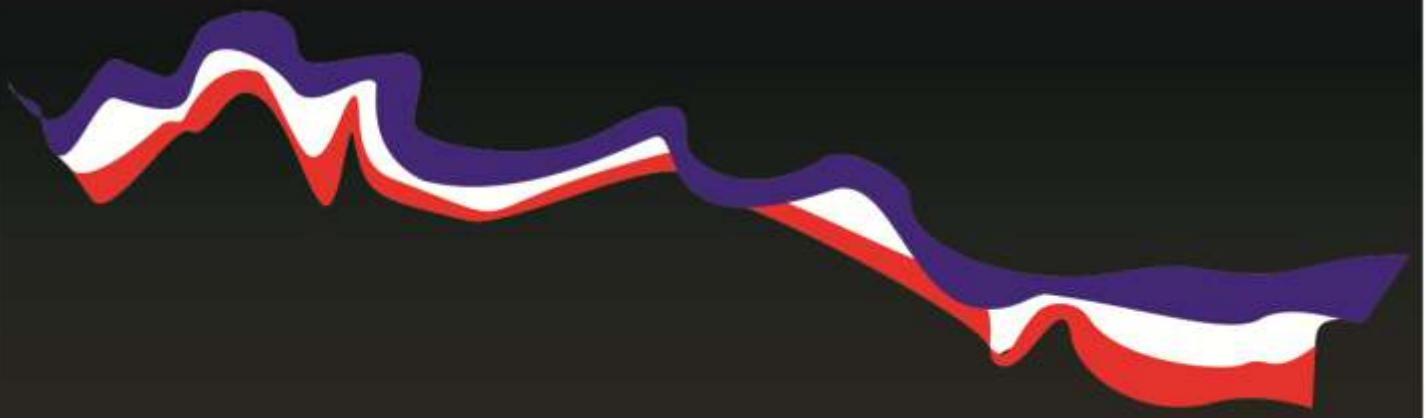
Critical Repairs
Model and sedimentation study is imperative to provide the information necessary to emergency managers.

Special Considerations
N/A

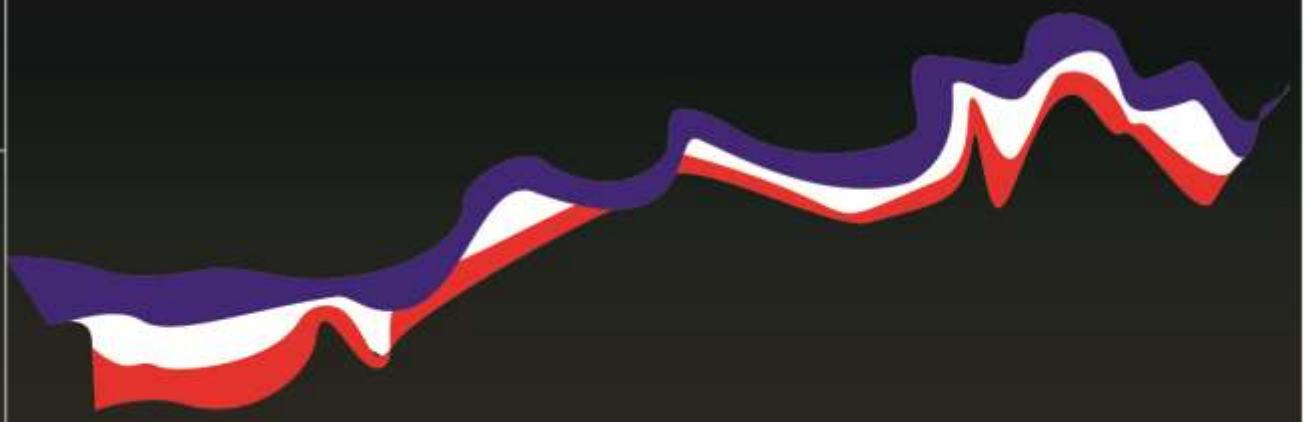
Schedule
Surveys complete – 6 months
Sedimentation Model – 12 months
Hydraulic Model – 12 months

Acquisition Strategy
The acquisition strategy is to do the modeling in house.

INVESTIGATIONS



INVESTIGATIONS



INVESTIGATIONS

The major objective of the Investigations program is to study projects that provide solutions to water resource problems. The Corps undertakes studies in response to directives (authorizations) from Congress. Congressional authorizations are contained in public law and in resolutions of either the House Public Works and Transportation Committee or the Senate Environment and Public Works Committee.

In the past, studies were conducted in two phases - reconnaissance and feasibility. WRDA 2014 revised the implementation for studies to: feasibility phase; cost no more than $3 million (Federal and non-Federal) and have 3 levels of vertical coordination.

The report results in recommendations to Congress for or against Federal participation in solutions to the water resource problem and opportunities identified in the study. A recommendation for Federal participation identifies a recommended plan/project, generally for construction authorization and funding.

The Preconstruction, Engineering and Design Studies (PED) phase of project development encompasses all planning and engineering necessary for project construction, after release of the report and Division Engineer's public notice on a favorable study. Preparation of design memorandums and plans and specifications will be cost shared in accordance with the cost sharing required for project construction.

West Pearl River Navigation, LA and MS

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
West Pearl River Navigation, LA and MS
Section 216, FCA 1970

Investigations (NAV)

Location and Description: The West Pearl River Navigation project is located in southeast Louisiana and south Mississippi. The project was authorized by the Rivers and Harbor Act of 1935. The project, which began in 1938 and was completed in 1956, was designed to provide a minimum depth of 7 feet for navigation from the mouth of the West Pearl River to the vicinity of Bogalusa, LA, a distance of approximately 58 river miles. The project is divided into two open river sections and an approximate 20-mile canal section that includes three locks. Sills across the Bogue Chitto River, the Pearl River, and an unnamed creek maintain navigable depths in the canal section. This study is directed at deauthorization and disposal of the project.

Issues: The Pearl River Navigation project has exceeded its 50-year project life and has no commercial traffic. Efforts to reopen the waterway by the Vicksburg District in the mid-1980s to early 1990s by performing needed maintenance dredging were opposed by noncommercial groups. Maintenance dredging was last performed in 1988 and 1989. The last recorded barge movements occurred in 1991. In 1995, environmental litigation seeking declaratory and injunctive relief was filed, and the Corps was enjoined from dredging. In 1995, Congress officially placed the project in "caretaker" status by directing the limited project funds be used for maintenance of caretaker status. The project is in an unmanned caretaker status at this time. An Initial Appraisal Report was prepared recommending deauthorization of the project. The Louisiana Department of Wildlife and Fisheries have shown interest in taking over the project.

Importance: Due to the condition of the lock walls it is important that a feasibility study to deauthorization and disposal of the project be completed.

Risk: Recent engineering assessments completed for the lock facilities indicated that the sheet pile lock walls are rapidly corroding.

Consequence: Locks are deteriorating and are potentially unsafe.

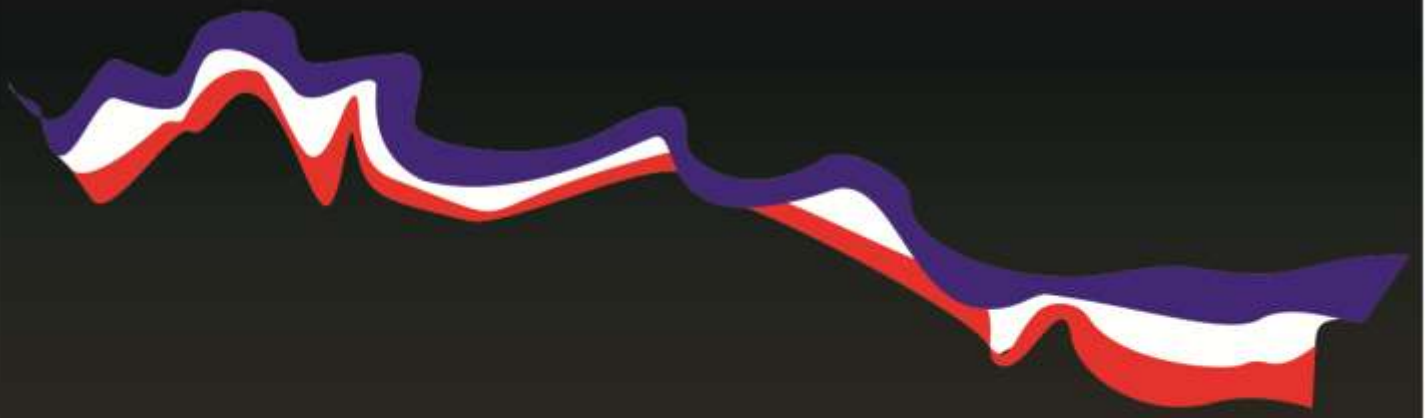
Amount That Could Be Used in FY 16: Funds in the amount of $1,250,000 could be used to prepare a feasibility study directed at deauthorization and disposal of the project.

Project Sponsor/Customer: N/A

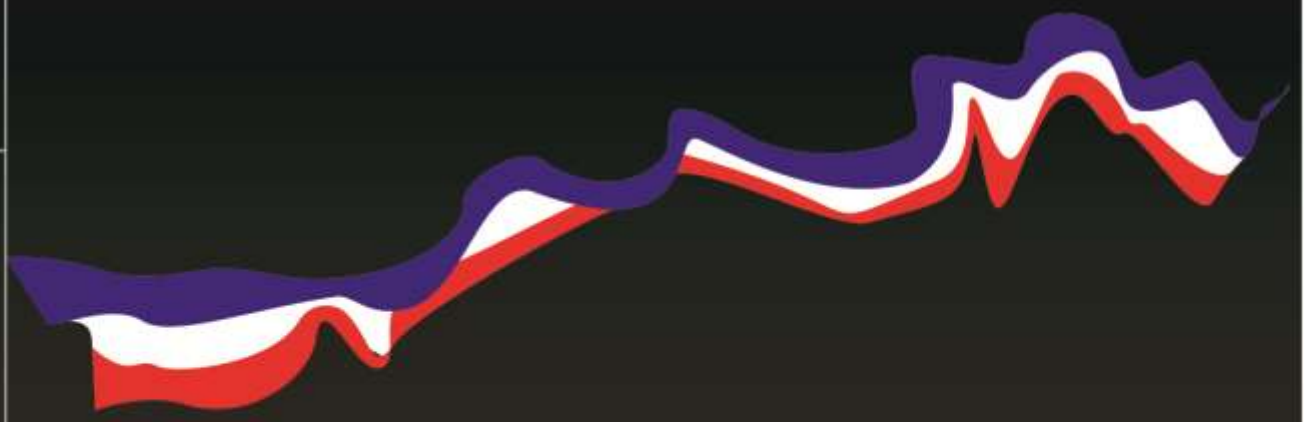
Congressional Interest: Senate: Cassidy (LA), Vitter (LA) and Cochran (MS); House: Palazzo (MS-04).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 15	FY 16 Budget	FY 16 Total Capability
Feasibility	$1,250,000	$0	$0	$1,250,000

CONSTRUCTION



CONSTRUCTION



CONSTRUCTION

The main objective of a construction program is to complete authorized and appropriated projects as economically and quickly as practicable within program constraints and consistent with national priorities.

Under the provisions of a cost-shared project, prior to initiation of construction, the non-Federal sponsor and the government enter into a Project Partnership Agreement (PPA). The PPA describes all of the requirements and responsibilities relating to construction of the project including items of local cooperation required from the non-Federal

J. Bennett Johnston Waterway,
Mississippi River to Shreveport, LA

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
J. Bennett Johnston Waterway, LA

Sec. 101, RHA 68; Sec 187, WRDA 76; Sec. 1305, SAA 84; Sec 601, WRDA 86; Sec.4, WRDA 88; Sec. 102, WRDA 90; Sec. 301, WRDA 96; Sec. 316, WRDA 00; E&WDAA 94, 96, 97, Sec. 3080, WRDA 07

Construction (NAV)

Location: The J. Bennett Johnston Waterway (JBJWW) project is located in central and northwest Louisiana.

Description: The project provides for a 9- by 200-foot navigation channel extending about 236 miles from the Mississippi River through Old River and Red River to the vicinity of Shreveport, LA. Five locks and adjacent dams provide a lift of about 141 feet. Facilities to provide recreation and mitigation of fish and wildlife losses are also an integral part of the project. Although the project is open to navigation, refinements to the channel alignment are necessary to improve the safety and reliability of the navigation channel as well as to reduce maintenance dredging costs. These refinements consist of reinforcing or capping out existing revetments as well as adding additional contraction structures (dikes) to improve navigation conditions.

Issues: Shreveport, during the 2015 flood, experienced higher stages than expected at observed flows. At present, the waterway has not had any sedimentation studies or modeling completed, since the project was completed. A study would be required to determine the cause of changes in the stage-flow relationships as well as provide better data for future flood forecasting. The Red River Surveys from Index gage to ACME gage will provide pertinent information that is required to complete this modeling.

The Water Resource and Development Act (WRDA) 2007 increased the authorized cost for mitigation to $33,912,000 allowing the purchase of cleared or agricultural lands for reforestation. Land mitigation is required to compensate for losses during construction of the project. Refinements to the channel alignment are necessary to improve the safety and reliability of the navigation channel as well as to reduce maintenance dredging costs.

Importance: Navigation from the MS River to Shreveport provides an artery for low-cost transportation, which stimulates economic growth of the region. Estimated savings on the project were based on an annual movement, as forecast, of 7,845,000 tons. Waterborne commerce tonnage on the waterway in 2013 was 8,893,112 tons. Approximately 60% of required mitigation land (14,000 acres) has been purchased to date (8,437 acres).

Risk: Without funding, accurate flood predictions cannot be made during critical times of high water. Required land acquisition and development cannot continue and navigation refinement will cease.

Consequence: Without additional acquisitions, the Corps will not meet its land mitigation requirement for the project. Additionally, a lack of navigation refinement could lead to channel degradation.

Dike Field and Commercial Traffic on the JBJWW

Activities for FY 15: Continue economic update.

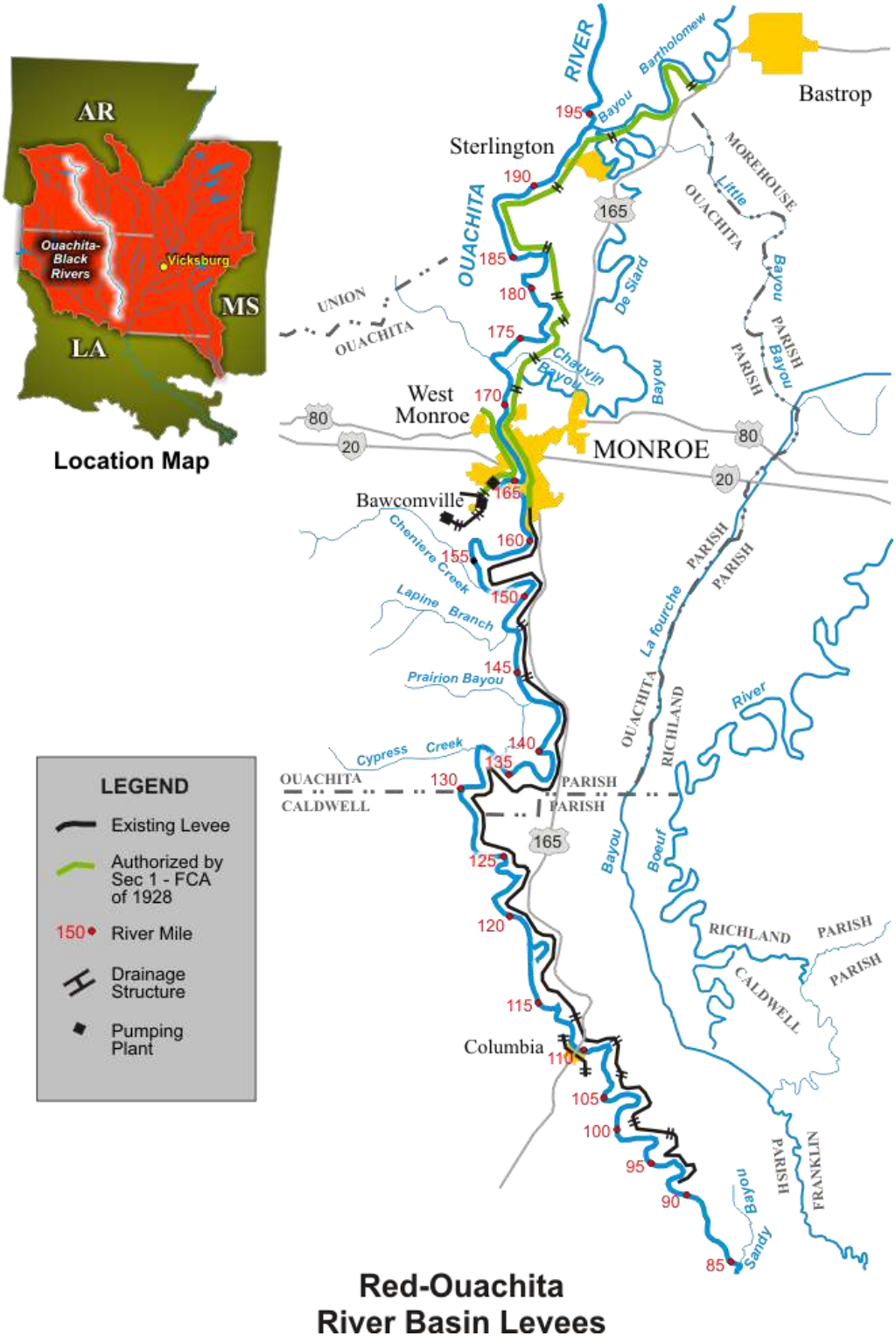
Acquisition Strategy: No contracts are scheduled to be awarded in FY 15.

Amount That Could Be Used in FY 16: There are no funds in the FY 16 President's Budget for this project. Funds in the amount of $17,665,000 could be used to fund Sedimentation surveys ($1,500,000), improvements on J. H. Overton Lock and Dam Lower Approach ($8,960,000), continue land acquisition and development for project mitigation ($1,700,000), construct Alexandria Front Dike field reinforcement ($2,250,000), River front development at Grand Ecore Ph II ($2,500,000), construct ADA fishing pier ($500,000) and complete economic update.

Project Sponsor/Customer: Red River Waterway Commission

Congressional Interest: Senate: Cassidy and Vitter (LA); House: Fleming (LA-4), Abraham (LA-5).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 14	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability



Red-Ouachita River Basin Levees

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Ouachita River Levees, LA
Flood Control Acts of 1928, 1936; and 1950

Construction (FRM)

Location: The Ouachita River levee system is located in northeast Louisiana.

Description: The levee system is comprised of three separate levee segments totaling 11.5 miles on the west bank at West Monroe, Bawcomville, and Columbia and 105.8 miles of levee on the east bank from Bastrop to Sandy Bayou. The recommended plan consists of rehabilitation of existing levees and raising a portion of the levee to the 1956 project design grade.

Issues: The Ouachita River Levees are critical to the lives and property of the citizens in the Monroe-West Monroe urban area. Gravel surfacing is an integral component of a levee. Gravel is needed to ensure access daily and during high water events.

Importance: Gravel surfacing is important to maintain access for inspection and basic maintenance daily and during high water events.

Risk: Risk of levee failure includes loss of life, isolation of cities, and months of flooding. Commercial impacts include disruption of railroad use and use of waterways.

Consequence: Millions of acres would be subject to flooding, resulting in devastation of primary economic engine of region. Environmental losses of terrestrial habitat and wildlife would be significant.

Activities for FY 15: None.

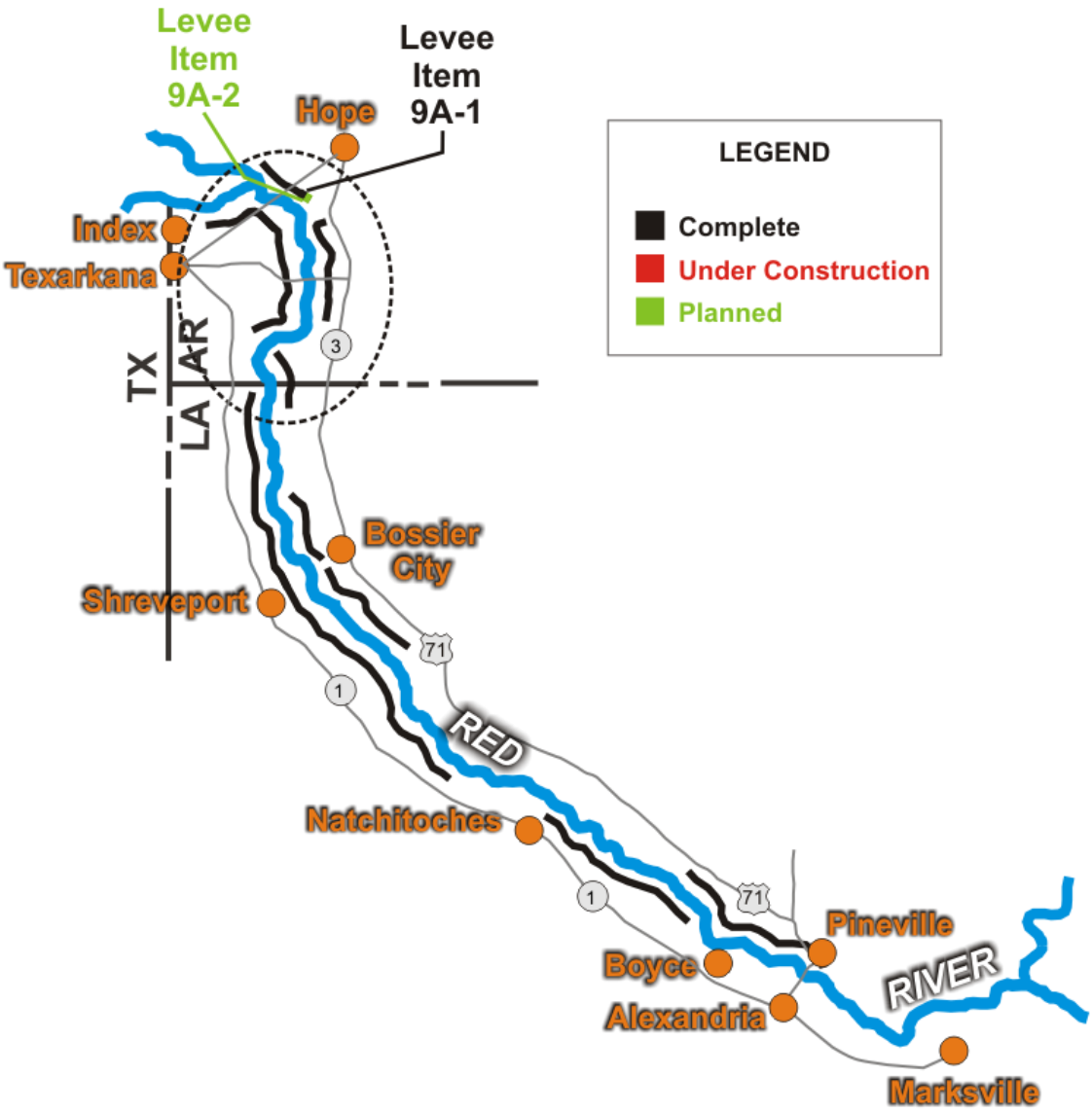
Acquisition Strategy: No contracts are scheduled to be awarded in FY 15.

Amount That Could Be Used in FY 16: There are no funds in the FY16 President's Budget. Funds in the amount of $5,900,000 could be used to complete the project which includes gravel surfacing of levees below Monroe, LA.

Project Sponsor/Customer: Ouachita River Valley Association, Tensas Basin Levee District

Congressional Interest: Senate: Vitter and Cassidy (LA); House: Abraham (LA-5).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 14	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
Construction	$36,500,000	$30,629,000	$0	$0	$5,900,000



Red River
Below Denison Dam,
Arkansas and Louisiana

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Red River Below Denison Dam, AR, LA, and TX

Section 10, FCA 46; E&WDAA 92, 93, 94, 95, 96, 98, 02, 03, 04, 05, 06, 07, 08, 09, 10

Construction, FRM

Location: Project facilities are located along the Red River from the vicinity of Index, AR, to Boyce, LA, along the right bank, and to Pineville, LA, along the left bank.

Description: The overall project provides flood protection to about 1.7 million acres, half of which are located behind levees. The project protects the flood plain from crop damage; loss of livestock; damage to levees, railroads, highways, industries, and other river and urban development. The authorized project provides for enlargement and/or rehabilitation of existing levees and construction of new levees or bank protection or channel realignment where levee setbacks are impossible or uneconomical.

Issues: These project features are essential to maintenance of the existing levee system. Currently these levee systems protect over 103,000 people in AR and LA. Prior levee rehabilitation work did not include new standards that have been developed post Hurricane Katrina. Levees continue not to meet current inspection standards making them ineligible for PL 84-99 funds; therefore, creating higher potential for poor performance during flood events resulting in continued flood damage to homes, farms, and other improvements. Levee rehab is required to achieve positive levee evaluations. There is risk of increased flood insurance premiums with levee decertification.

Importance: These project features are essential to maintenance of the existing levee system. Currently this levee system protects over 103,000 people and 1.7 million acres of fertile farmland in AR and LA.

Risk: Without funding, additional levee rehabilitation cannot be completed. This levee system protects over 103,000 people and 1.7 million acres of fertile farmland in AR and LA. Levee rehab is required to achieve positive levee evaluations. There is risk of increased flood insurance premiums with levee decertification.

Consequence: Flood protection for the area could be compromised and local levee districts may face levee decertification.

Levee Item 9A-I

Activities for FY 15: None

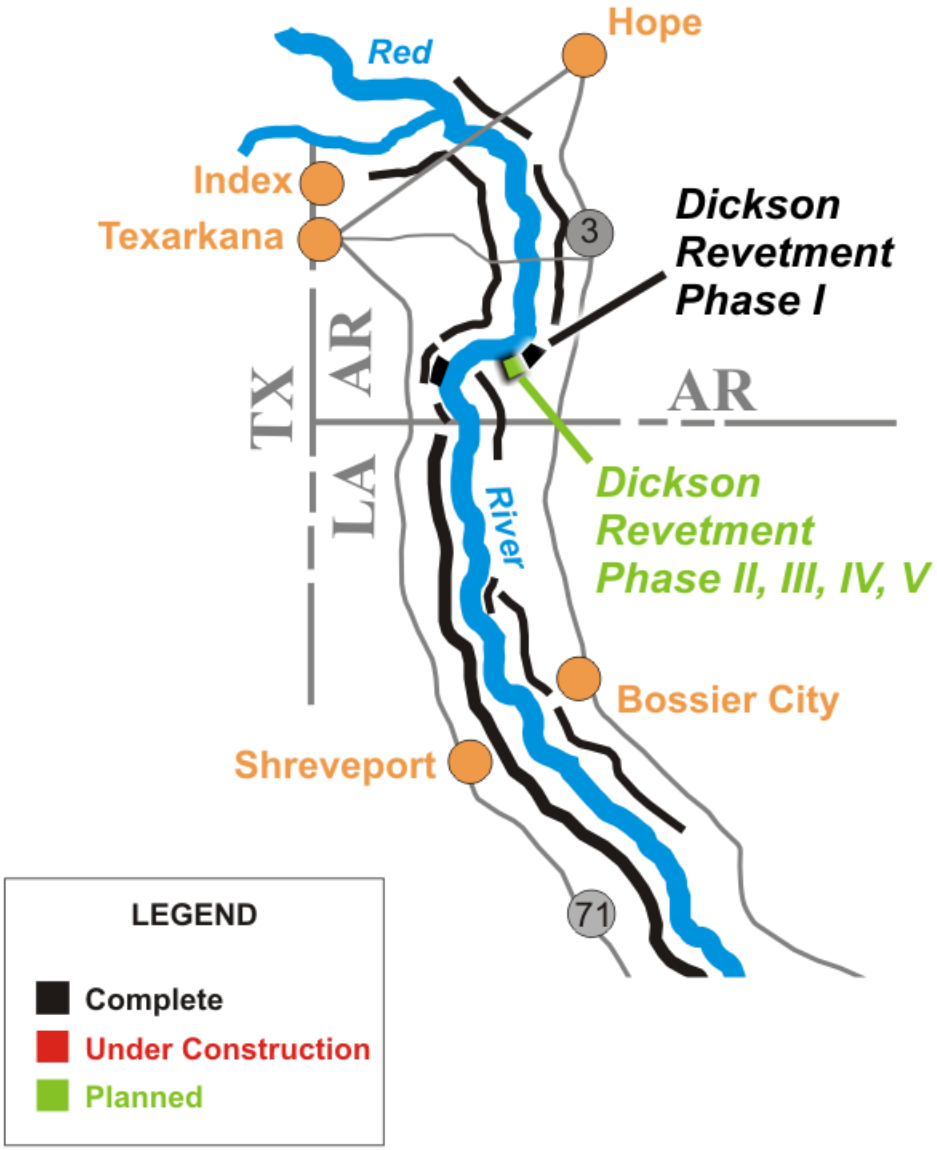
Acquisition Strategy: No contracts are scheduled to be awarded in FY 15.

Amount That Could Be Used in FY 16: There are no funds in the FY16 President's budget. Funds in the amount of $1,700,000 could be used to fully fund Levee Item 9A Phase 2, rehabilitation of levee to meet new Post-Katrina levee standards.

Project Sponsor/Customer: Multiple local levee districts

Congressional Interest: Senate: Boozman and Cotton (AR), Vitter (LA); House: Westerman (AR-4), Fleming (LA-4), Abraham (LA-5).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 14	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
Construction	$96,941,000	$96,941,000	$0	$0	$1,700,000



Red River
Emergency Bank Protection
Arkansas, Louisiana, Oklahoma and Texas

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet

Red River Emergency Bank Protection, AR, LA, OK, TX

Rivers and Harbors Act of 1968; Water Resources Development Act of 1976

Construction (NAV)

Location: The project is located in northwest Louisiana, southwest Arkansas, southeast Oklahoma, and northeast Texas, along the Red and Old Rivers between the mouth of Old River at its juncture with the Mississippi River and Denison Dam, Texas.

Description: The project provides for protection of critical infrastructure and land along the river. The project plan provides for revetment, dikes, or cutoffs that can be accomplished in advance of developing the design for the entire project.

Issues: During the 2015 flood Stone Bank Paving sites have been identified near Garland City, AR, River mile 267 and River Mile 327 on the Red River. This includes approximately 130,000 tons of rock, mobilization and demobilization. Dickson Phase I of V is complete, but with only limited success as the remaining phases are needed to prevent continued erosion towards a levee in the Long Prairie Levee District in Arkansas.

Importance: These project features are essential to maintaining the existing river channel.

Risk: Without funding, additional bank protection work cannot continue.

Consequence: Delay in bank stabilization will endanger levees, public roads and bridges, and other improvements to the river due to erosion.

Dickson Revetment Phase I

Activities for FY 15: None.

Acquisition Strategy: No contracts are scheduled to be awarded in FY 15.

Amount That Could Be Used in FY 16: There are no funds in the FY16 President's budget. Funds in the amount of $7,000,000 could be used to fully fund Stone Bank Paving.

Project Sponsor/Customer: Multiple local levee districts

Congressional Interest: Senate: Cotton and Boozman (AR), Vitter (LA); House: Westerman (AR-4) and Fleming (LA-4).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 14	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
Construction	$161,700,000	$144,868,000	$0	$0	$7,000,000

The 8 Authorities of the CONTINUING AUTHORITIES PROGRAM or "CAP"

Section 14

Emergency Streambank & Shoreline Protection - Flood Control Act of 1946 as amended by WRDA 1996

This authority is to prevent erosion damages to highways, bridge approaches, public works, and other nonprofit public facilities by the emergency construction or repair of streambank and shoreline erosion protection. These are two-phase projects: Study cost for the first $100,000 is 100% Federal with any amount over $100,000 cost-shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 65% Federal and 35% non-Federal with a Federal funding limit of $5 million per project and a national program limit of $20 million.

Section 107

Small Navigation Projects - River and Harbor Act of 1960

This authority provides improvement to navigation including dredging of channels, widening of turning basins, and construction of navigation aids. These are two-phase projects: Study cost for the first $100,000 is 100% Federal with any amount over $100,000 cost-shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 80% Federal and 20% non-Federal with a Federal funding limit of $10 million per project and a national program limit of $50 million.

Section 205

Small Flood Control Projects - Flood Control Act of 1948 as amended by WRDA 1999

This authority for local protection from flooding by the construction or improvement of flood control works such as levees, channels, and dams. Nonstructural alternatives are also considered. These are two-phase projects: Study cost for the first $100,000 is 100% Federal with any amount over $100,000 cost-shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 65% Federal and 35% non-Federal with a Federal funding limit of $10 million per project and a national program limit of $55 million.

Section 206

Aquatic Ecosystem Restoration - Water Resources Development Act of 1996, as amended by WRDA 1996

This authority provides for restoration of degraded aquatic ecosystems. A restoration project is adopted for construction only after investigation shows that the restoration will improve the environment , and/or elements and features of an estuary is in the public interest, and is cost effective. These are two-phase projects: Study cost for the first $100,000 is 100% Federal with any amount over $100,000 cost-shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 65% Federal and 35% non-Federal with a Federal funding limit of $10 million per project.

Section 1135

Project Modification for Improvements to the Environment - Water Resources Development Act of 1986 as amended by WRDA 1996 and WRDA 1999

This authority provides for ecosystem restoration through modification to Corps structures or operation of Corps structures or implementation of restoration features when the construction of Corps projects has contributed to degradation of the quality of the environment. These are two-phase projects: Study cost for the first $100,000 is 100% Federal with any amount over $100,000 cost shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 75% Federal and 25% non-Federal with a Federal funding limit of $10 million per project and a national program limit of $40 million.

Section 208

Snagging and Clearing for Flood Control- Flood Control Act of 1954

This authority provides improvements for flood control by removing accumulated snags and other debris, and clearing and straightening of the channels in streams in the interest of flood control. Study cost for the first $100,000 is 100% Federal with any amount over $100,000 cost-shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 65% Federal and 35% non-Federal with a $500,000 Federal limit. This Federal cost limitation includes all project-related costs for feasibility studies, planning, engineering, construction, supervision, and administration.

Section 204

Ecosystem Restoration Projects in Connection with Dredging

Water Resources Development Act of 1992, as amended

This authority provides for protection, restoration, and creation of aquatic and wetland habitats in connection with construction and maintenance dredging of an authorized project. Study cost for the first $100,000 are 100% Federal with any amount over $100,000 cost shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 75% Federal and 25% non-Federal with a Federal funding limit of $10 million per project and a national program limit of $50 million.

Section 111

Mitigation of Shore Damages- Water Resources Development Act of 1968, as amended

This authority provides for the prevention or mitigation of erosion damages to public or privately owned shores along the coastline of the United States when these damages are a result of a Federal navigation project. This authority cannot be used for shore damages caused by river bank erosion or vessel-generated wave wash.

It is not intended to restore shorelines to historic dimensions, but only to reduce erosion to the level that would have existed without the construction of a Federal navigation project. Cost sharing may not be required for this program. If the Federal cost limitation is exceeded, specific Congressional authorization is required.

Study cost for first $100,000 is 100% Federal with any amount over $100,000 cost shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 65% Federal and 35% non-Federal with a Federal funding limit of $10 million per project.

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Cane River, State Highway 484, LA
Flood Control Acts of 1946, Section 14

Continuing Authorities Program (CAP)

Location: The project is located on the Cane River, near Natchez, Louisiana, approximately 13.25 miles southeast of Natchitoches, Louisiana.

Description: The community of Natchez is located at the intersection of Highways 119 and 1 in Natchitoches Parish, Louisiana. Saint Augustine Church is located near the banks of the Cane River along Hwy 484.

Issues: Moderate to severe bank erosion is taking place along the Cane River, threatening Louisiana Hwy 484, as well as the St. Augustine Catholic Church, which is potentially eligible for the National Historic Register.

Importance: Improving stability of LA HWY 484 will reduce risk of failure and transportation impacts and preservation of the historically significant church will preserve its integrity and benefit the community.

Risk: Risk of bank erosion includes public traffic safety issues near the Cane River and Saint Augustine Catholic Church.

Consequence: Erosion could cause bank failure which would impact state Hwy 484 and St. Augustine Catholic Church which is potentially eligible for the National Historic Register.

Activities for FY 15: Site reconnaissance and NFS kickoff meeting; Draft Federal Interest determination, and approval package submitted to for approval.

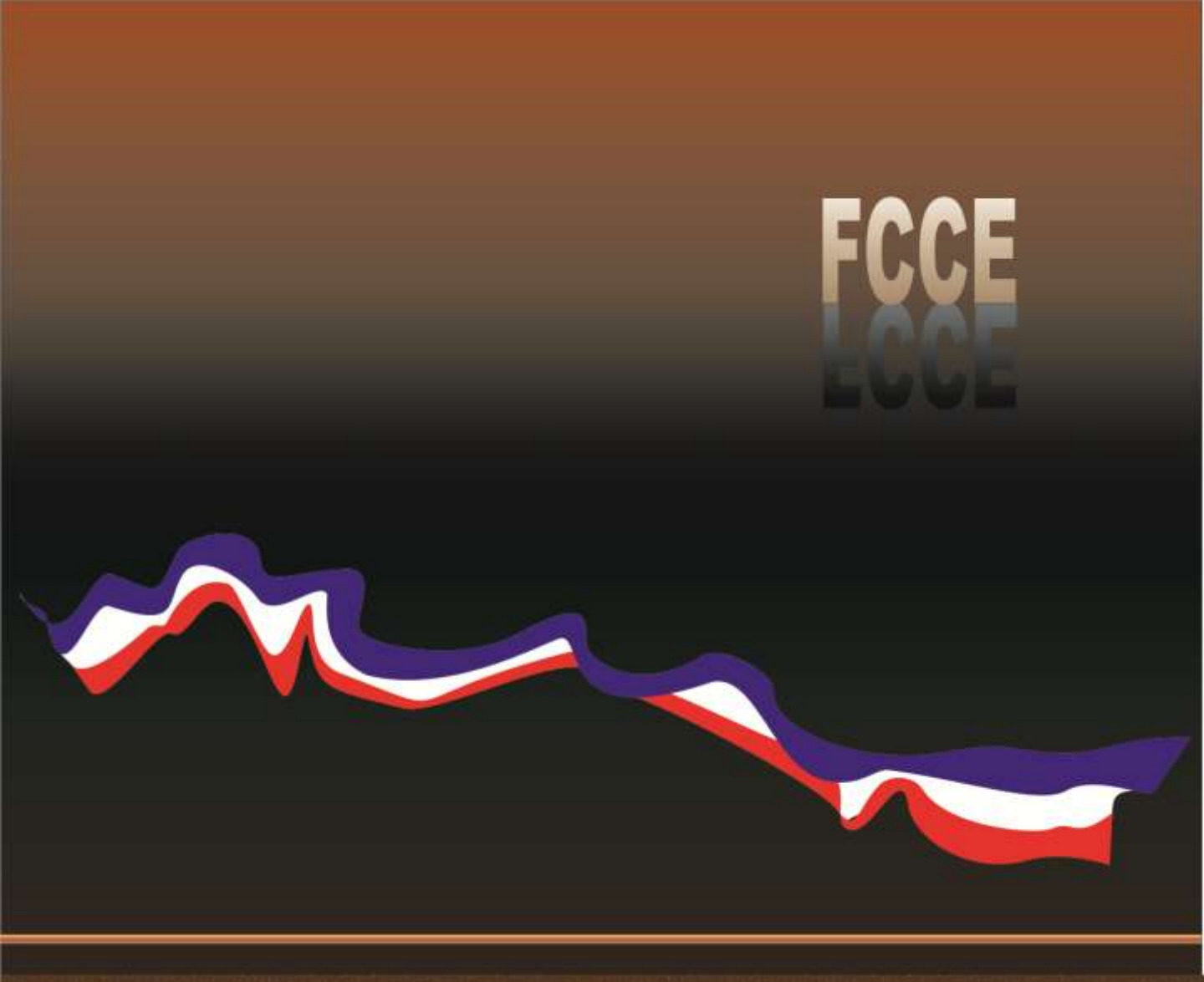
Acquisition Strategy: No contracts are scheduled to be awarded in FY 15.

Amount That Could Be Used in FY 16: Upon the approval of the Federal Interest Determination Document, a feasibility cost sharing agreement would be executed.

Project Sponsor/Customer: Natchitoches Parish, LA

Congressional Interest: Senate: Vitter and Cassidy (LA); House: Abraham (LA-5).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 15	FY 16 Allocation	FY 17 Budget	FY 16 Total Capability
FID	$50,000	$50,000	TBD	TBD	135,000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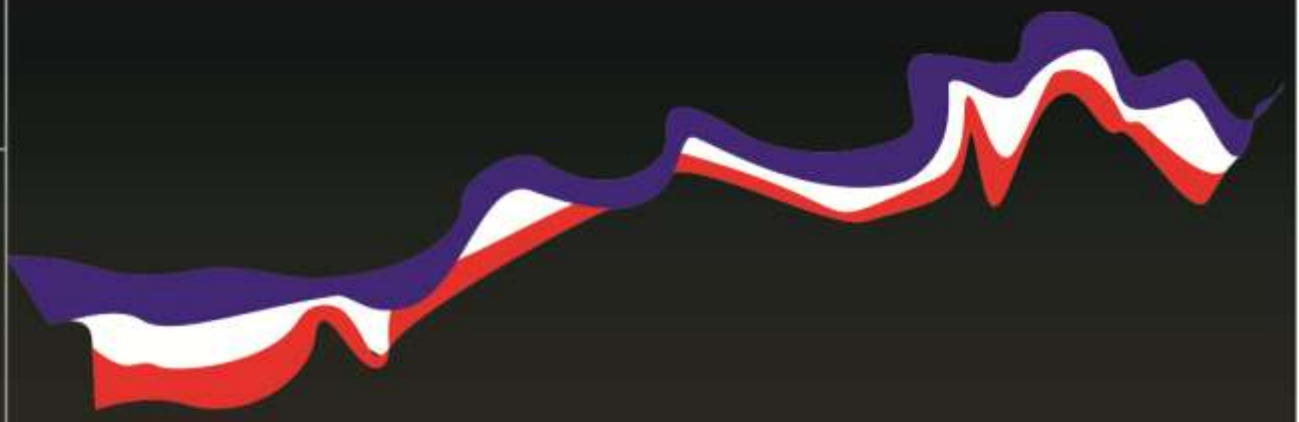


FCCE

FLOOD CONTROL AND COASTAL EMERGENCIES

USACE has authority under PL 84-99, Flood Control and Coastal Emergencies (FCCE) (33 U.S.C. 701n) (69 Stat. 186) for emergency management activities. Under PL 84-99, the Chief of Engineers, acting for the Secretary of the Army, is authorized to undertake activities including disaster preparedness, Advance Measures, emergency operations (Flood Response and Post Flood Response), rehabilitation of flood control works threatened or destroyed by flood, protection or repair of Federally authorized shore protective works threatened or damaged by coastal storm, and provisions of emergency water due to drought or contaminated source.


Caernarvon, RM 81.5
Braithwaite
Oakville, RM 70
Whites Ditch
LaReussite
Phoenix
Lake Hermitage Rd
St. Jude, RM 46.5
Bohemia, RM 44
Venice, RM 10
Authorized? Funded?
NFL eastbank backlevees Caernarvon to Whites Ditch No No
MRL eastbank Caernavon to Whites Ditch* No No
NFL westbank backlevees Oakville to Lake Hermitage Rd** Yes Yes
NFL westbank backlevees Lake Hermitage Rd to St. Jude Yes No
MRL westbank MRL Oakville to St. Jude No No
NOV eastbank backlevees Phoenix to Bohemia Yes No
NOV eastbank Phoenix to Bohemia* No No
* Deficiency is to the MR&T grade only (MR&T design grade higher than 2% HSDRRS)
** Funding from post-Katrina supplemental for NOV ($786M) and NFL incorporation into NOV ($671M)
Plaquemines Parish, Louisiana
New Orleans to Venice (NOV)
Non-Federal Levee (NFL) Incorporation into NOV
NFL Eastbank Backlevees (not authorized)

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet

New Orleans to Venice (NOV) and Non-Federal Levees (NFL) Project

Flood Control Act of 1962 (PL 87-874);3rd, 4th, 6th, and 7th FC&CE Supplemental

Flood Control and Coastal Emergency

Location: The NOV project area straddles the Mississippi River in Plaquemines Parish, LA. On the east bank, the project extends 16 miles on the back levee from Phoenix (located 28 miles southeast of New Orleans) down to Bohemia, LA. On the west bank it extends 34 miles from St. Jude (located 39 miles southeast of New Orleans) to Venice, LA, on the back levee and on the mainline Mississippi River levee. The NFL project area consists of 34 miles of back levees from Oakville to St. Jude, LA.

Description: Congressional Intent for NOV/NFL includes raising and restoring the original NOV project to provide an authorized 50 yr level of risk reduction (LORR), accelerating completion of unconstructed portions, and armoring critical system elements. The project also includes replacing or modifying certain non-federal levees in Plaquemines Parish, incorporating them into the federal levee system. Along with this effort, the main evacuation route, Highway 23, would remain open.

Issues: MVK supports the overall Hurricane and Storm Damage Risk Reduction System (HSDRRS) for the greater New Orleans area by leading in the design and award of construction contracts for the NOV/NFL project. This involves continual coordination with MVN, regional district support, national review teams, Risk Management Center, and project sponsors. Numerous difficult and complex issues such as redesign criteria, EPOCH datum changes, pipeline relocations, acquiring real estate, and levee alignments must be handled on a daily basis. Additionally, frequent communication with MVD and HQUSACE is imperative to ensure the path forward is synched. The current schedule is aggressive and has risk in both time and funding and must be consistently maintained to meet project milestones.

Importance: NOV/NFL project funds ($1.44B) are divided into two separate categories. The Federal funds ($769M) are used for the NOV projects, are a part of the HSDRRS system, and are subject to higher priority items. The non-federal funds ($671M) are used for the NFL projects and are marked only for those projects.

Risk: Redesigns and cost increases along with contingency needs for higher priority HSDRRS work have decreased the funding available to fully meet Congressional Intent. The Risk Analysis, completed in December 2013, gave direction for prioritizing reaches within the NOV and NFL projects.

Consequence: Due to limited funding, the LORR for NOV/NFL was lowered from 50 yr to a 40-50 yr LORR for all structures and from 50 yr to 20-25 yr for all levees.

Activities for FY 15: Continue to design and construct individual levee reaches and search for cost cutting measure that will not impact product quality. Award 5 contracts through the MVK contracting office.

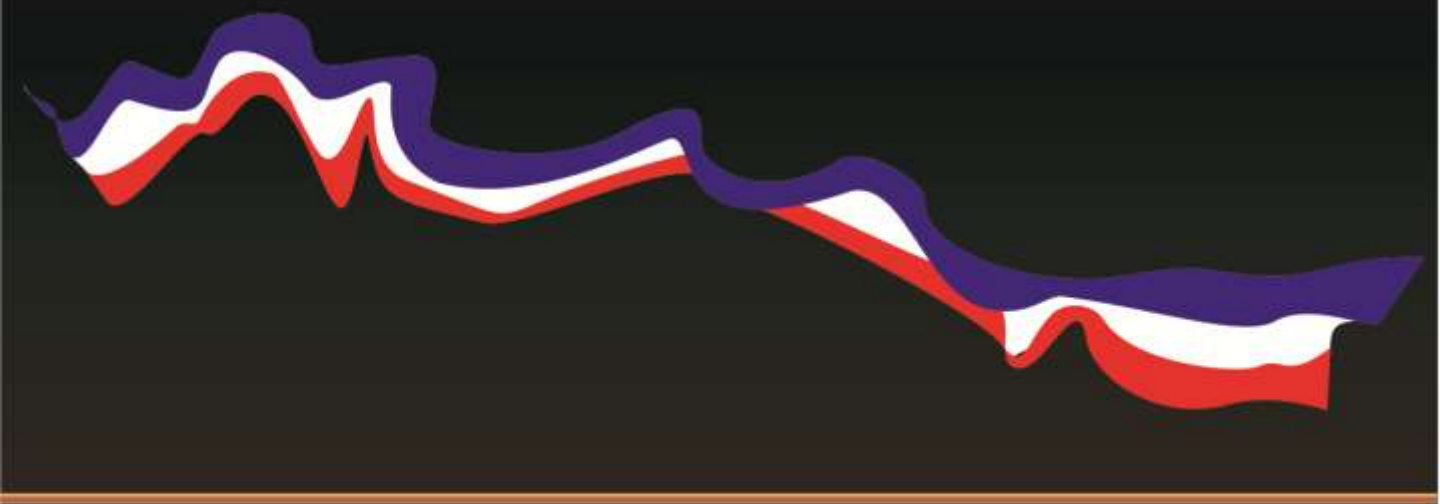
Acquisition Strategy: Award 5 Contracts.

Project Sponsor/Customer: Louisiana Costal Protection and Restoration Authority (LaCPRA)

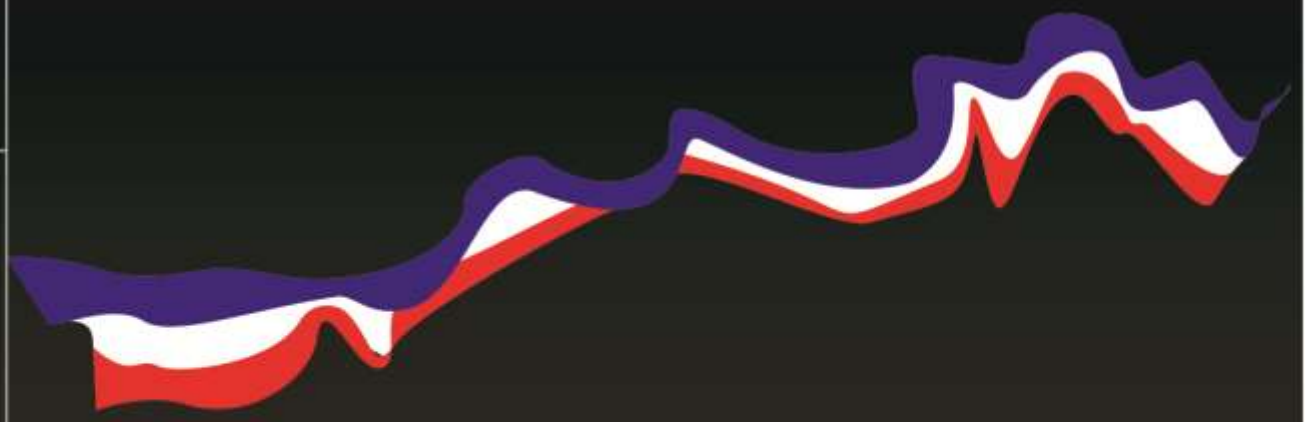
Congressional Interest: Senate: Vitter and Cassidy (LA); House: Scalise (LA-1).

Project	Appropriated Funds	Obligated Thru FY 14	Remaining Amounts	Remaining projects
NOV	$769,000,000	$505,000,000	$264,000,000	4
NFL	$671,000,000	$142,000,000	$529,000,000	11

O&M



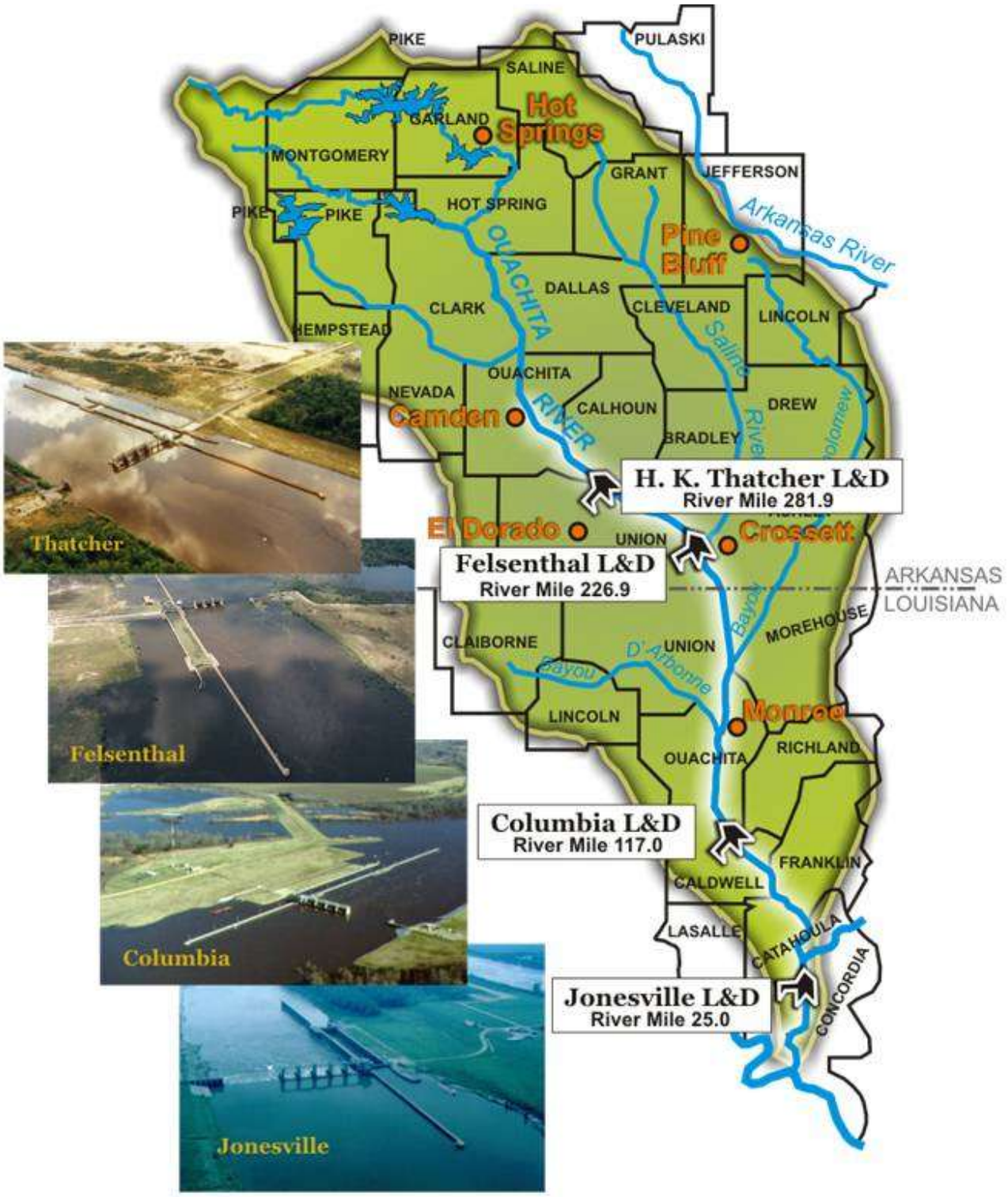
O&M



OPERATION & MAINTENANCE

OR O&M

The Operation and Maintenance program focuses on the need to preserve the existing Civil Works Infrastructure such as locks, dams, navigation channels, recreation facilities and provide adequate levels of service.



Ouachita-Black Navigation Project

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Ouachita-Black Navigation Project, AR & LA

River and Harbor Act of 1950 as modified by River and Harbor Act of 1960

Operation and Maintenance (NAV, FRM, REC, ENS)

Location: The project for navigation on the Ouachita/Black Rivers extends 366 miles from the mouth of the Black River to Camden, Arkansas.

Description: The project provides for a 9- by 100-foot navigation channel and also includes a diversion channel through Catahoula Lake near Jonesville, Louisiana, for ecological reasons.

Issues: Uncertainty of sufficient annual dredging funding has adverse economic impacts to the navigation system and the users of the waterway. Failure to maintain the authorized depth for much of the year required shippers to light load or cease commercial navigation operations.

Importance: Recent river trends have shown a higher need for dredging at the approaches to the locks. Without dredging the lock approaches, the locks may become inaccessible affecting 32 companies and 18 shippers. Industries use the project to transport commodities such as calcium chloride, calcium bromide, and farm products, and gasoline; commercial fishermen and the public recognize the project as an important economic resource. FY13 commercial tonnage was 1,104,858.

Risk: Without dredging, the project will have less than authorized project depth for much of the year requiring shippers to light load or cease commercial navigation operations. Navigation could be closed, causing private sector workforce layoffs, along with traffic congestion and product price increases.

Consequence: Loss of navigation would have significant adverse economic impacts to the region. Significant private sector workforce layoffs would occur. Approximately 28,000 private sector jobs with an annual payroll of $325,000,000 are connected to the Ouachita-Black. Navigation above river mile 281 would be closed in the event lock chamber repairs are required at H. K. Thatcher.

Activities for FY 15: Funds are being used to perform dredging, operate and maintain the locks and dams, repairs to gates, operate the system at reduced hours in accordance with Inland Marine Transportation System (IMTS), design, purchase and installation of a system for remote operation of tainter gates on two locks and dams (Felsenthal and Thatcher) and recreation activities.

Ouachita/Black River

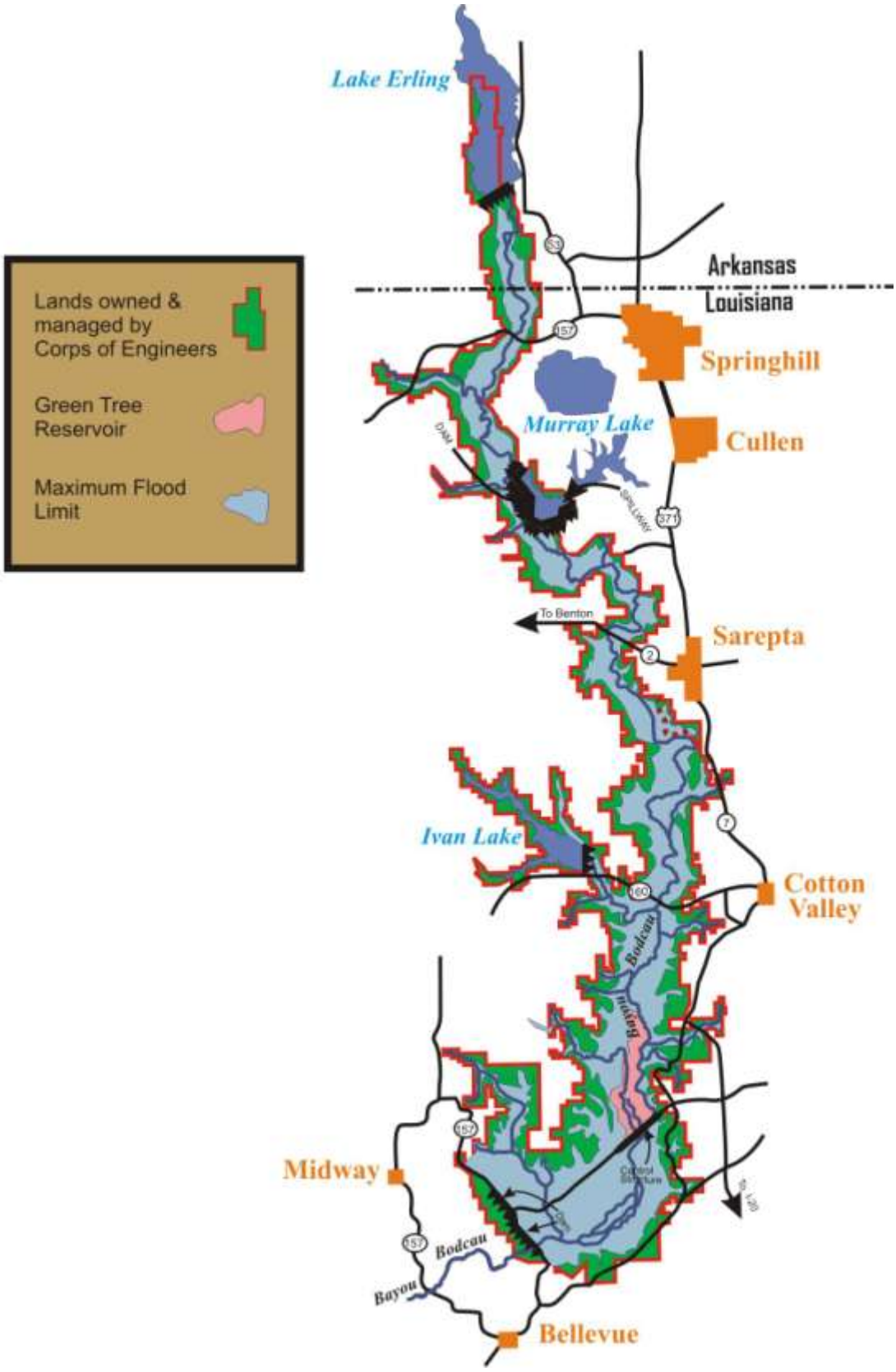
Acquisition Strategy: A contract for dredging was awarded

Amount That Could Be Used in FY 16: Budgeted funds of $8,076,000 will be used to perform minimal dredging, operate and maintain the locks and dams, natural resource management, real estate management, and update master plan. Additional funds in the amount of $6,178,000 could be used fully fund dredging ($2,000,000); maintenance on tainter gates ($1,600,000); raise customer service to desirable levels for the visiting public and local residents and repair/update recreation areas ($2,000,000); replace ladders, handrails, and miter gates ($421,000); backlog maintenance items ($157,000).

Project Sponsor/Customer: Ouachita River Valley Association

Congressional Interest: Senate: Boozman and Cotton (AR), Vitter and Cassidy (LA); House: Westerman (AR-4) and Abraham (LA-5).

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
O&M	$11,638,200	$8,076,000	$14,254,000



Bayou Bodcau Dam and Reservoir, Louisiana

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Bodcau Bayou Dam and Reservoir, LA

Flood Control Act of 28 June 1938, 22 June 1936, modified by Act of 28 June 1939

Operation and Maintenance (FRM)

Location: Bodcau Bayou Dam and Reservoir is located in Northwest Louisiana and Southwest Arkansas. It extends from the Lake Erling Dam in Arkansas to the Bodcau Dam in Bellevue, Louisiana. It is part of a comprehensive plan to help control flooding along the Red River below Denison, Texas.

Description: Bodcau Dam and Reservoir is managed as a multiple-use project (Flood Control, Natural Resource Management, Environmental Stewardship and Recreation). The structure consists of an earthen dam, inlet and outlet works, two uncontrolled conduits, an emergency spillway and an earthen dike. Water levels are controlled by the elevation and size of the conduits. The primary purpose of the project is flood control to protect the flood plain between the dam site and the limits of Red River backwater area. Much of this area is now being used for city-wide expansion projects and residential development. Included within this area is an 8,400-acre tract as part of Barksdale Air Force Base.

Issues: As the 63-year old earthen dam ages, it is anticipated significant repairs will be necessary in the next 3-5 years.

Importance: Recreation and natural resource stewardship are important secondary uses of project lands at Bodcau. There are 36,941 acres open to the public for recreational purposes. A Cooperative Partnership License Agreement with the Louisiana Department of Wildlife and Fisheries authorizes them to use and occupy 32,471.85 acres of land and water for fish and wildlife management purposes.

Risk: Bodcau Dam is considered a high risk dam due to the potential high loss of life if the dam were to fail. The dam currently has a Dam Safety Action Class (DSAC) Rating of III.

Consequence: Public health and safety will be jeopardized and potential dam failure. Barksdale Air Force Base would also experience heavy flooding if the dam were to fail.

Bayou Bodcau Dam and Reservoir

Activities for FY 15: Funds are being used to perform routine operation and maintenance of the project and slide repairs.

Acquisition Strategy: None.

Amount That Could Be Used in FY 16: Budgeted funds of $1,221,000 will be used for routine operation and maintenance. Additional funds in the amount of $643,000 could be used for slide repair ($250,000), removal of trees/repair erosion for drainage canal from Spillway ($250,000), environmental stewardship work ($24,000), dam safety requirements ($69,000), increase customer service to desireable levels for the visiting public and local residents ($50,000).

Project Sponsor/Customer: N/A

Congressional Interest: Senate: Cassidy and Vitter (LA); House: Fleming (LA-4).

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
O&M	$1,273,600	$1,221,000	$1,864,000

Bayou Pierre, Louisiana

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Bayou Pierre, LA

Flood Control Act of 24 July 1946

Operation and Maintenance (FRM)

Location: Bayou Pierre is located in the vicinity of Shreveport, LA.

Description: The project provides for flood control by channel improvement and enlargement of Ockley Drive Ditch and segments of Bayou Pierre in the vicinity of Shreveport, Louisiana. The project includes 133 miles of levees, 196 miles of channels, 2 drainage structures, 1 pumping plant and 10 weirs.

Issues: None

Importance: The project provides for flood control by channel improvement and enlargement.

Risk: There is a risk of potential flooding if project is not properly maintained.

Consequence: Public health and safety could be jeopardized. Increased housing and industrial development in the Bayou Pierre watershed has greatly increased the importance of this project. Increased flooding in a heavily populated area would result if the project was not maintained.

Bayou Pierre

Activities for FY 15: Funds are being used to perform routine operation and maintence of the project.

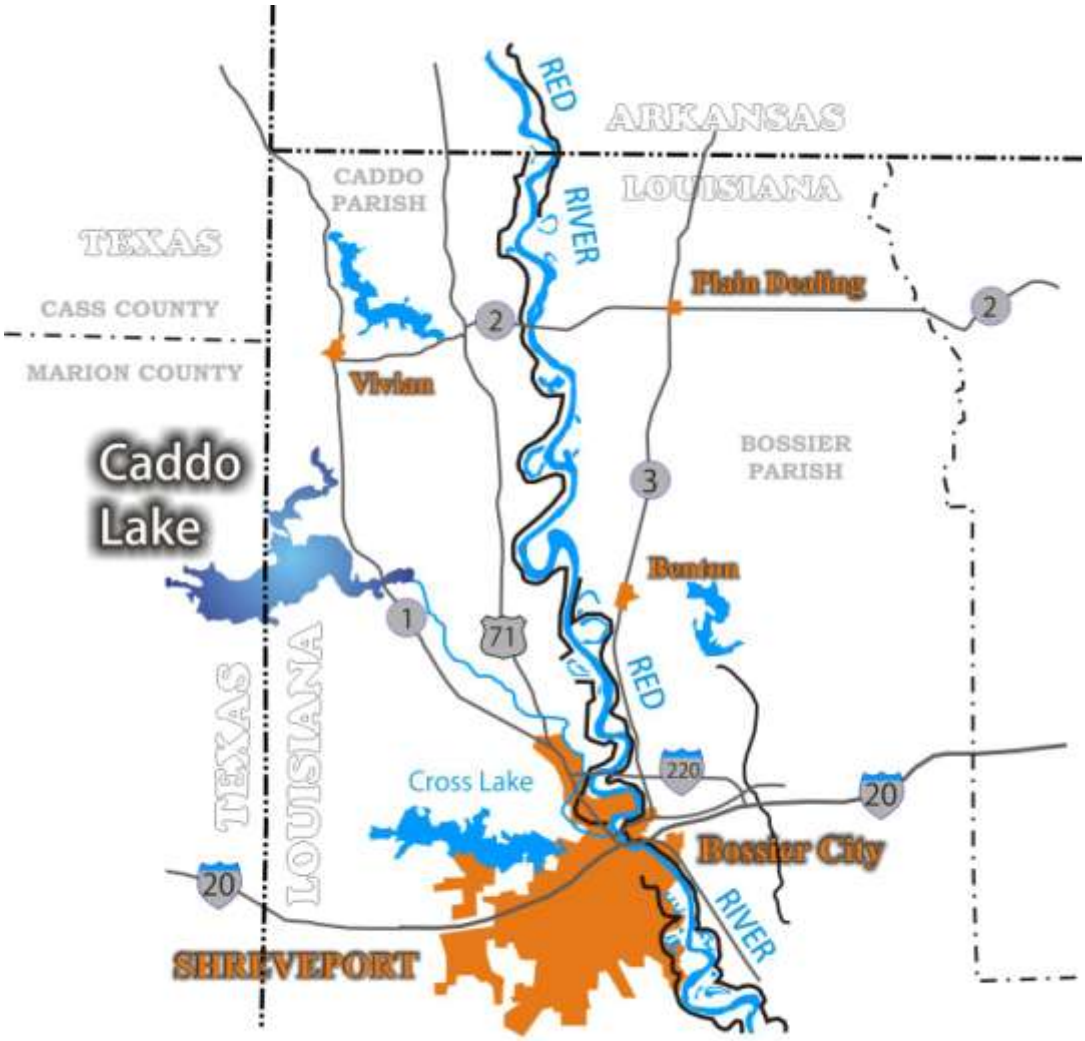
Acquisition Strategy: No contracts are scheduled to be awarded in FY 15.

Amount That Could Be Used in FY 16: Budgeted funds of $23,000 will be used for routine operation and maintenance.

Project Sponsor/Customer: N/A

Congressional Interest: Senate: Cassidy and Vitter (LA); House: Fleming (LA-4).

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
O&M	$23,000	$23,000	$23,000



Caddo Lake, Louisiana

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Caddo Lake, LA

Flood Control Act of 27 October 1965, S.D. 39, WRDA 1976

Operation and Maintenance (FRM)

Location: Caddo Lake Dam is located in Caddo Parish, Louisiana, about 19 miles northwest of Shreveport, Louisiana, just upstream of the confluence of Black and Twelve Mile Bayous. Caddo Lake is a 25,400-acre lake and wetland located on the border between Texas and Louisiana, extending into east Texas. It is part of a comprehensive plan to help control flooding along the Red River below Denison, Texas.

Description: The dam consists of an earth embankment and an uncontrolled, fixed concrete crest weir. The outlet structures consist of an earth-filled dike and an ogee weir.

Issues: The Caddo Levee District was responsible for operation and maintenance of the dam after completion of the dam in 1971. Section 174 of the Water Resources Development Act of 1976, PL 94-587, transferred operation and maintenance responsibility to the Corps. Currently, only minimal critical operation and maintenance of the project is being performed.

Importance: In addition to flood control, the reservoir is essential to local communities and factories as a water source. The lake helps to provide upstream storage for Shreveport/Bossier City, LA the third largest city in Louisiana (population over 200,000). It is an internationally protected wetland under the RAMSAR treaty and is the largest natural fresh water lake in the South. It has the largest cypress forest in the world. Ecotourism is economically important to the area.

Risk: Caddo Lake Dam is considered a high hazard dam and currently has a Dam Safety Action Class (DSAC) rating of 4.

Consequence: Without proper maintenance, the project could jeopardize public health and safety in the event of a dam failure. Loss of a water supply would be detrimental to local communities. Environmental impacts to the wetland would be severe.

Caddo Lake Dam

Activities for FY 15: Funds are being used to perform routine operation and maintenance of the project.

Acquisition Strategy: None.

Amount That Could Be Used in FY 16: Budgeted funds of $209,000 will be used for minimal routine operation and maintenance. Additional funds in the amount of $188,000 could be used for dewatering-repair concrete in stilling basin, repair seal between monolith 1& 2 ($150,000) and restore service to desirable levels for the visiting public and local residents ($38,000).

Project Sponsor/Customer: N/A

Congressional Interest: Senate: Cassidy and Vitter (LA); House: Fleming (LA-4).

Phase	FY 15 Allocation	FY 16 Budget	FY 15 Total Capability
O&M	$203,200	$209,000	$397,000

J. Bennett Johnston Waterway, LA

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
J. Bennett Johnston Waterway, LA

RHA 68; WRDA 76; Supplemental Appropriations Act of 1984; WRDAs 86, 88, 90, 92, 96; and E&WDA 94

Operation and Maintenance (NAV, REC, ENS)

Location: The project is located in central and northwest Louisiana.

Description: The project provides for 9 by 200 feet navigation extending about 236 miles from the Mississippi River through Old River and Red River to the vicinity of Shreveport, Louisiana. Five locks and adjacent dams provide a lift of approximately 141 feet.

Issues: The record rainfall that occurred over the Red River Basin in late-May through early June 2015 resulted in significant drainage to the watershed, overtopping river banks and filling or exceeding the capacity of reservoir pools. During the flood the Red River structures had significant damages. Funding allows for minimal dredging and operation and maintenance. With implementation of Inland Marine Transportation System (IMTS) in February 2014, Lock operations remained unchanged with all 5 locks and dams operating 24 hrs/day, 7 days/week.

Importance: The project provides for realigning the banks of the Red River from the Mississippi River to Shreveport by means of dredging, cutoffs, and training works and stabilizing its banks by means of revetments, dikes, and other methods. Repairs to revetments, erosion control and dike markers need to be made in order to maintain navigation on the river.

The Waterway project created a great fishery that is enhanced by ensuring the oxbows are kept open to the river. Over 2,000,000 visitors enjoy using the 22 recreation facilities located in the eight parishes along the J. Bennett Johnston Waterway.

Risk: If dredging is not performed, navigation would be closed, causing private sector workforce layoffs, along with traffic congestion and product price increases. Recent hydraulic trends have shown a greater need for dredging at the approaches to the locks. Without dredging the lock approaches, the locks may become inaccessible.

Consequence: Twenty-seven companies and 81 users would be affected by navigation closure. The largest company affected would be CLECO Power Plant, which requires 3 million tons of fuel, all brought in by barge. There are 1,371 jobs directly related to the Waterway. Total direct payroll associated with the Waterway is $47,985,000, excluding the recreational industry.

Lock and Dam #3

Activities for FY 15: Funds are being used for routine operation and maintenance of locks and dams, maintenance dredging, repairs made to structures damaged during the flood event, and operation and maintenance of recreation/visitation areas.

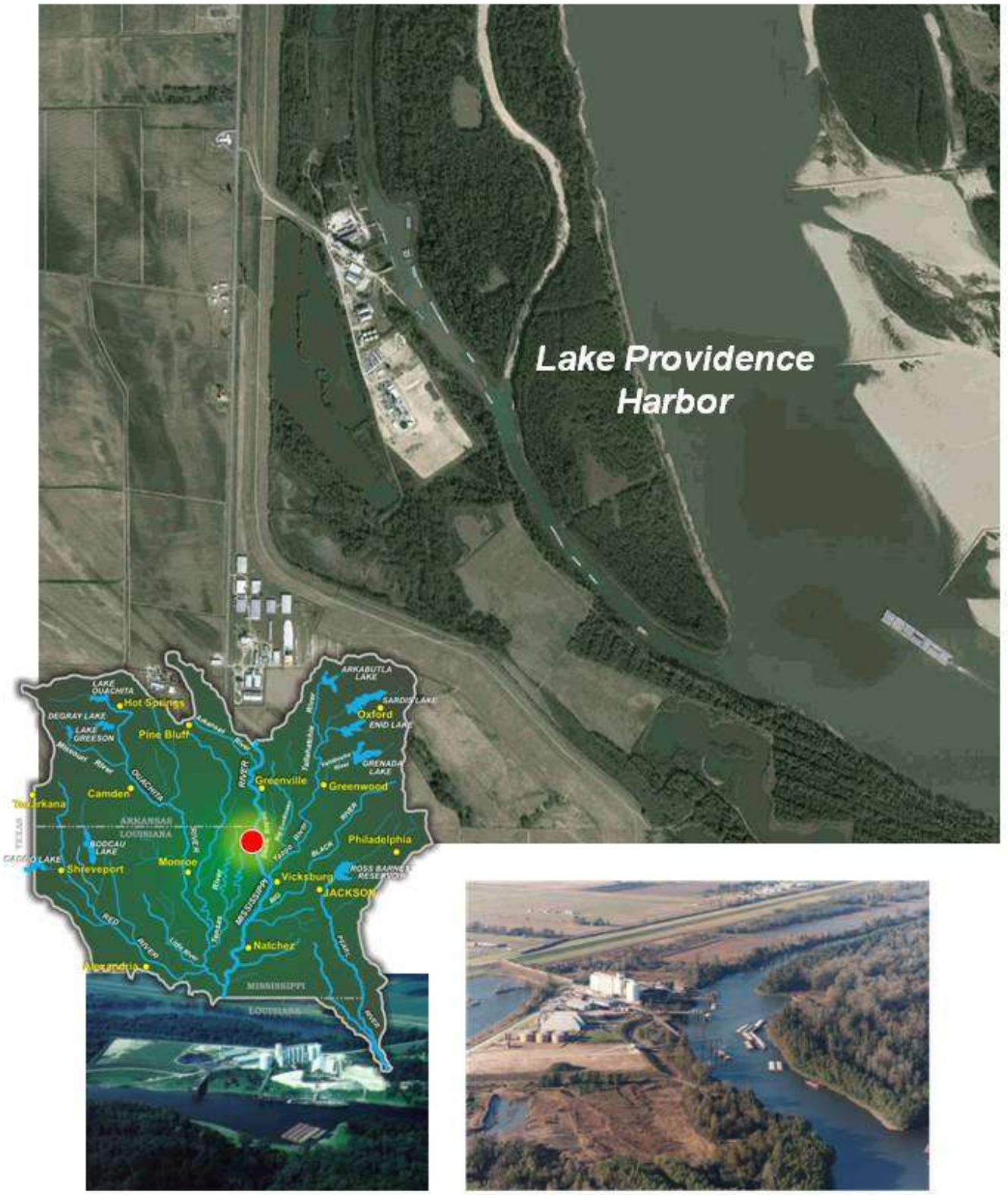
Acquisition Strategy: Awarded two contracts - lock operations and dredging.

Amount That Could Be Used in FY 16: Budgeted funds of $8,782,000 will be used for minimal operation and maintenance of locks and dams, minimal maintenance dredging, and reduced operation and maintenance of recreation/visitation areas. Additional funds in the amount of $20,395,000 could be used to fully fund maintenance dredging ($2,400,000); additional dredging due to sedimentation from flood ($3,000,000); scour repair due to flood ($2,100,000); stone repair for Pools 1-5 due to flood ($9,000,000); replace and repair dike markers due to flood ($1,300,000); erosion control at Grand Ecore visitor center ($800,000); backlog maintenance items ($1,495,000); fund visitation areas & visitor centers that are not funded with initial and sustaining packages ($300,000).

Project Sponsor/Customer: Red River Waterway Commission

Congressional Interest: Senate: Vitter and Cassidy (LA); House: Abraham (LA-5), Fleming (LA-4).

Phase	FY15 Allocation	FY 16 Budget	FY 16 Total Capability
O&M	$15,185,400	$8,782,000	$29,177,000



Lake Providence Harbor, Louisiana

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Lake Providence Harbor, LA

River and Harbor Act of 1960, Section 107

Operation and Maintenance (NAV)

Location: Lake Providence Harbor, located in East Carroll Parish, LA, is an inland harbor located along the Mississippi River.

Description: The main channel is approximately 3,700 feet long by 150 feet wide with a maintained minimum depth of 9 feet. The turning basin is 400 feet wide by 800 feet long with a maintained minimum depth of 9 feet.

Issues: Depending on river stages, the harbor experiences low-water conditions starting in July and lasting through November of each year. Maintenance dredging allows this harbor to continue shipping during these stages

Importance: The harbor provides a transportation need for water-oriented industries in East Carroll Parish, LA. It sustains approximately 291 jobs with an annual payroll of $6 million and $500,000 in local and state taxes. FY13 commercial tonnage was 1,595,342.

Risk: If dredging is not performed, this harbor will first begin to "light load" barges, in which barges will not be loaded to full capacity resulting in less efficient transportation. As the river continues to fall, there will not be enough water for the towboats to carry these barges to the river and the harbor will be required to close. Without maintenance dredging funds, this harbor will lose project dimensions during the busiest time of the year when crops are harvested and shipped.

Consequence: The loss of a dependable, reliable and safe harbor will have significant adverse impacts on the region due to the increased shipping costs by rail and trucks. Many small communities and farmers will be forced to seek other more costly means to move their products. Harbor employees along with the business located in the harbor would be laid off.

Lake Providence Harbor

Activities for FY 15: Funds are being used for surveys and maintenance dredging of the harbor.

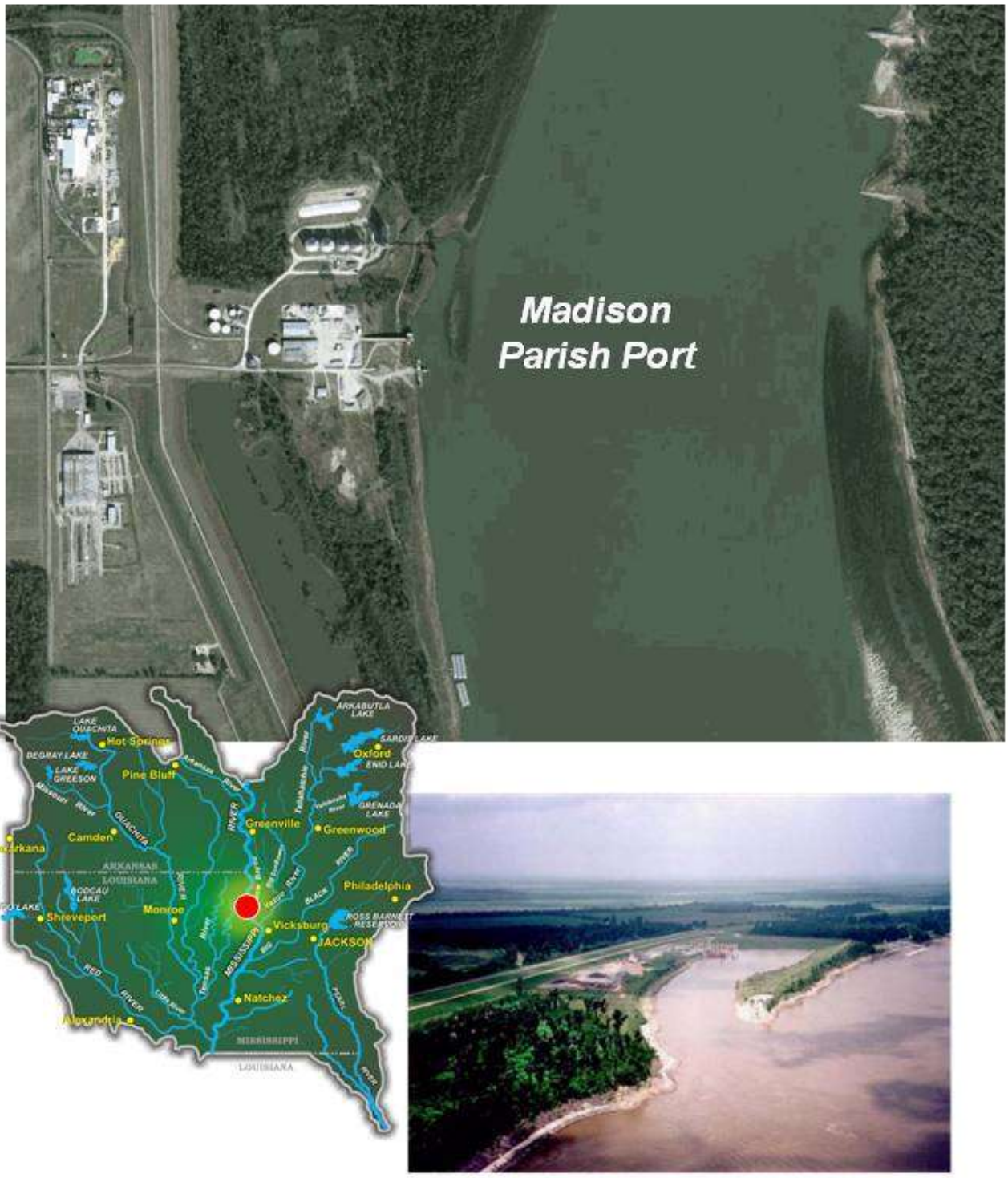
Acquisition Strategy: A contract was awarded for harbor and port dredging.

Amount That Could Be Used in FY 16: Budgeted funds of $14,000 will be used for surveys. Additional funds in the amount of $1,185,000 could be used to fund maintenance dredging.

Project Sponsor/Customer: Lake Providence Harbor Port Commission

Congressional Interest: Senate: Cassidy and Vitter; House: Abraham (LA-5).

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
O&M	$931,100	$14,000	$1,199,000



Madison Parish Port, Louisiana

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Madison Parish Port, LA

River and Harbor Act of 1960, Section 107

Operation and Maintenance (NAV)

Location: Madison Parish Port, located in Madison Parish, LA, is a fast-water, shallow draft port located along the Mississippi River.

Description: The main channel is 900 feet long by 150 feet wide, then transitions to 600 feet long by 200 feet wide channel with a 1,100 feet long by 600 feet wide turning basin. All of these channels are maintained to a minimum depth of 9 feet.

Issues: Depending on river stages, the port experiences low-water conditions starting in July and lasting through November of each year. Maintenance dredging allows this port to continue shipping during these stages

Importance: The port provides a transportation need for water-oriented industries in Madison Parish, LA. It helps sustain over 300 jobs in the area. FY13 commercial tonnage was 445,617

Risk: If dredging is not performed, this port will first begin to "light load" barges, in which barges will not be loaded to full capacity resulting in less efficient transportation. As the river continues to fall, there will not be enough water for the towboats to carry these barges to the river and the port will be required to close. Without maintenance dredging funds, this port will lose project dimensions during the busiest time of the year when crops are harvested and shipped.

Consequence: The loss of a dependable, reliable and safe port will have significant adverse impacts on the region due to the increased shipping costs by rail and trucks. Many small communities and farmers will be forced to seek other more costly means to move their products. Port employees along with the business located in the port would be laid off.

Madison Parish Port

Activities for FY 15: Funds are being used for surveys and maintenance dredging of the harbor.

Acquisition Strategy: A contract was awarded for harbor and port dredging.

Amount That Could Be Used in FY 16: Budgeted funds of $4,000 will be used for surveys and dredging. Additional funds in the amount of $146,000 could be used to fully fund maintenance dredging.

Project Sponsor/Customer: Madison Parish Port Commission

Congressional Interest: Senate: Cassidy and Vitter; House: Abraham (LA-5)

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
O&M	$419,700	$4,000	$150,000

Pearl River, LA and MS

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Pearl River, LA and MS

River and Harbor Act of 1935, as modified by River and Harbor Act of 1966

Operation and Maintenance (NAV)

Location: The Pearl River Navigation project is a navigation channel on the Pearl River that originally extended 58 miles from the mouth of the Pearl River to the mouth of Bogalusa Creek at Bogalusa, LA.

Description: The project consisted of three locks and three weirs that provided a channel with minimum depth of 7 feet and a minimum bottom width of 100 feet. The project was placed in a caretaker status in 1995 and has been maintained only for maintenance and safety needs.

Issues: The Pearl River Navigation project has exceeded its 50-year project life and has no commercial traffic. Efforts to reopen the waterway by the Vicksburg District in the mid-1980s to early 1990s by performing needed maintenance dredging were opposed by noncommercial groups. Maintenance dredging was last performed in 1988 and 1989. The last recorded barge movements occurred in 1991. In 1995, environmental litigation seeking declaratory and injunctive relief was filed, and the Corps was enjoined from dredging. In 1995, Congress officially placed the project in "caretaker" status by directing the limited project funds be used for maintenance of caretaker status. The project is in an unmanned caretaker status at this time. Remote gages were installed at all three Locks after Hurricane Issac to allow the Vicksburg District to monitor the water levels in each lock chamber at all times. An Initial Appraisal Report was prepared in 2003 recommending deauthorization of the project

Importance: Deauthorization and disposal of the project is needed as the locks are deteriorating.

Risk: Recent engineering assessments completed for the lock facilities indicated that the sheet pile lock walls are rapidly corroding.

Consequence: Locks are deteriorating and are potentially unsafe.

Lock 3

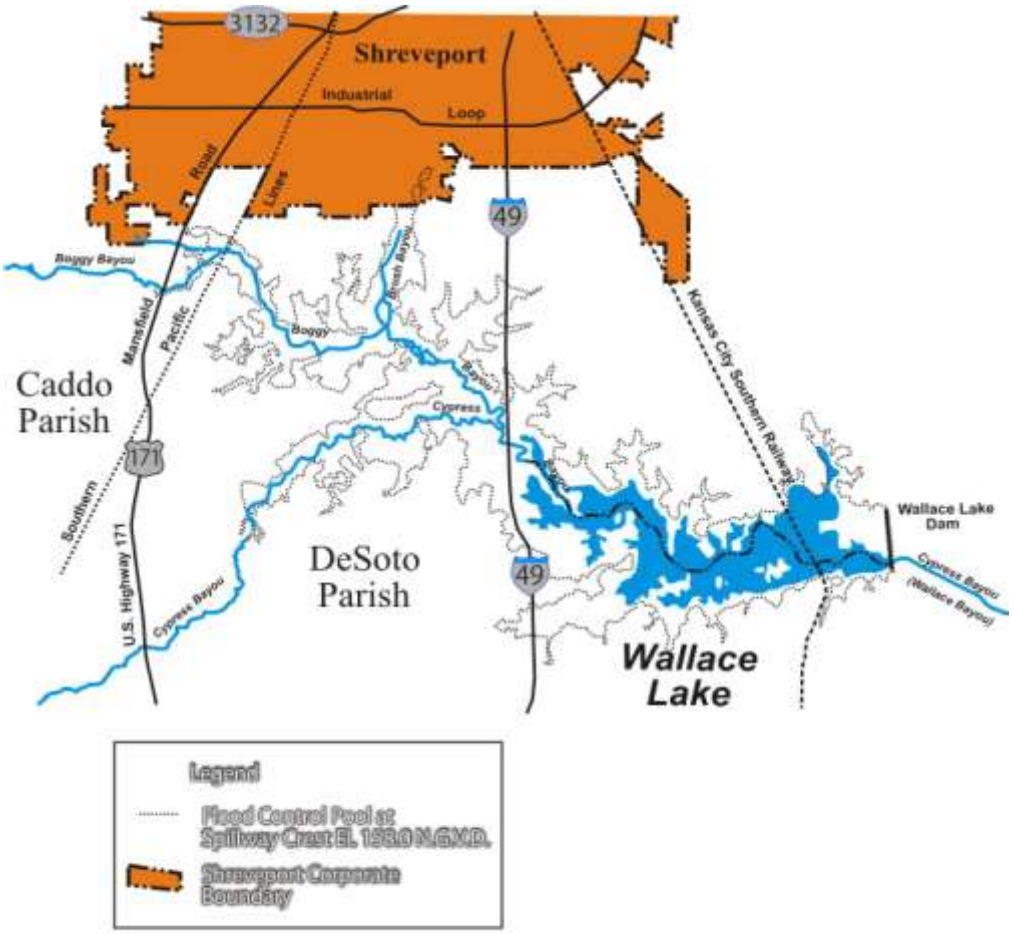
Activities for FY 15: Funds are being used to maintain the project in a caretaker status.

Acquisition Strategy: N/A

Amount That Could Be Used in FY 16: Budgeted funds of $150,000 will be used to maintain project in a caretaker status.

Congressional Interest: Senate: Cassidy and Vitter (LA); House: Palazzo (MS-4).

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
O&M	$150,000	$150,000	$150,000



Wallace Lake, Louisiana

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Wallace Lake, LA

Flood Control Act of 22 June 1936

Operation and Maintenance (FRM)

Location: Wallace Lake Dam is located 14 miles southeast of Shreveport, Louisiana in Caddo and DeSoto Parishes. It is located on Cypress Bayou, a tributary of Bayou Pierre.

Description: The original congressional authorization was limited to flood control only. Most recent authorization includes multi-purpose functions such as Natural Resource Management, Environmental Stewardship and Public Recreation as well as Flood Damage Reduction. The reservoir is comprised of 15,476 acres of flowage easement. The dam site consists of 283 acres of lands owned in fee by the Corps. The structure consists of an earthen dam, a concrete spillway and four uncontrolled conduits. Water levels are controlled by the elevation and size of these conduits.

Issues: Currently minimal operation and maintenance is being performed. Levee slides occur and needs repair timely to reduce safety issues.

Importance: Wallace Lake Dam is considered a high hazard dam. It currently has a Dam Safety Action Class (DSAC) rating of 4.

Risk: Leaving slides in disrepair may lead to dam safety issues and reduced levels of flood protection. Loss of life would occur if the dam were to fail.

Consequence: Projects public health and safety will be jeopardized and potential dam failure.

Wallace Lake Dam

Activities for FY 15: Funds are being used to perform routine operation and maintenance of the project.

Acquisition Strategy: None.

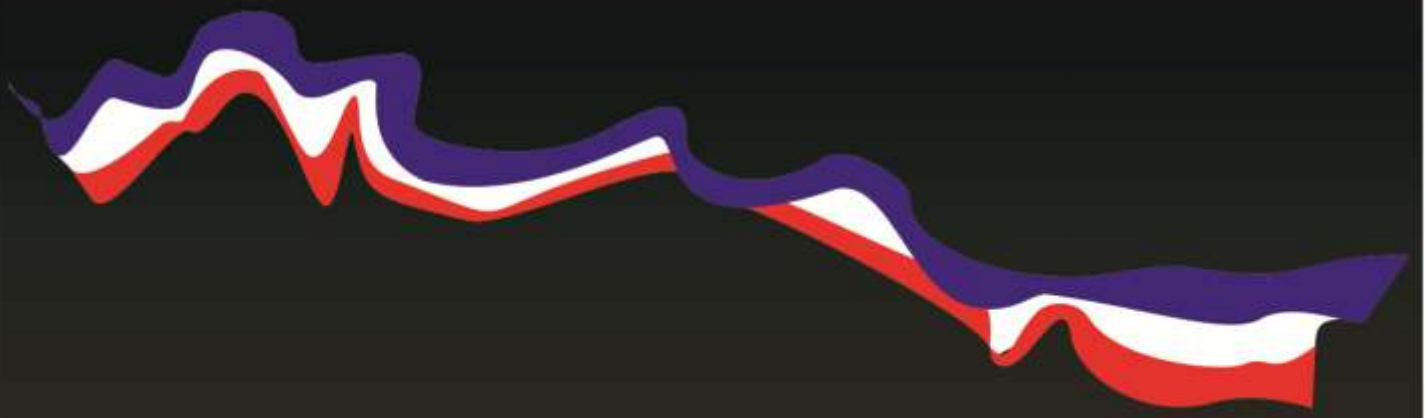
Amount That Could Be Used in FY 16: Budgeted funds of $226,000 will be used for routine operation and maintenance. Additional funds in the amount of $86,000 could be used for dam safety requirements ($76,000) and recreation facilities ($10,000).

Project Sponsor/Customer: N/A

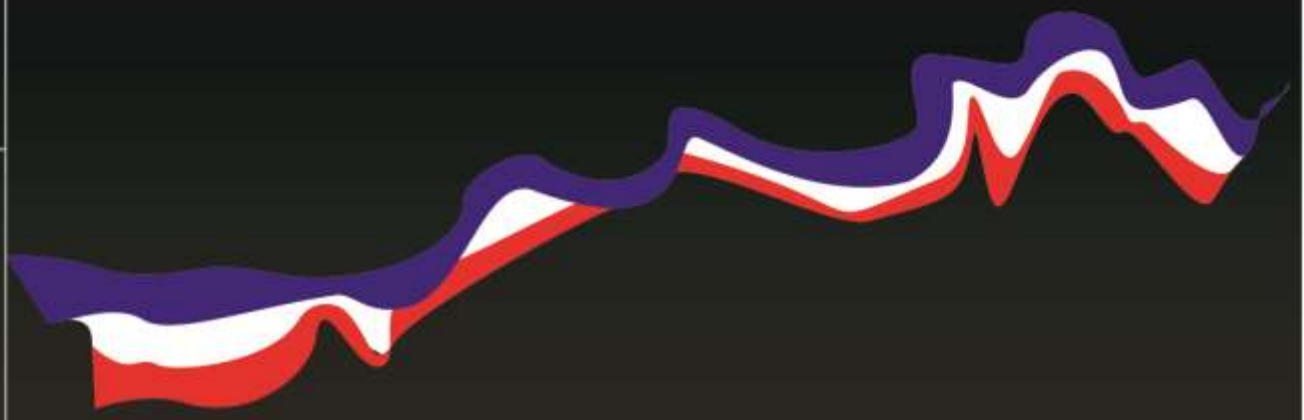
Congressional Interest: Senate: Cassidy and Vitter (LA); House: Fleming (LA-4).

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
O&M	$374,200	$226,000	$312,000

MR&T INVESTIGATIONS



MR&T INVESTIGATIONS



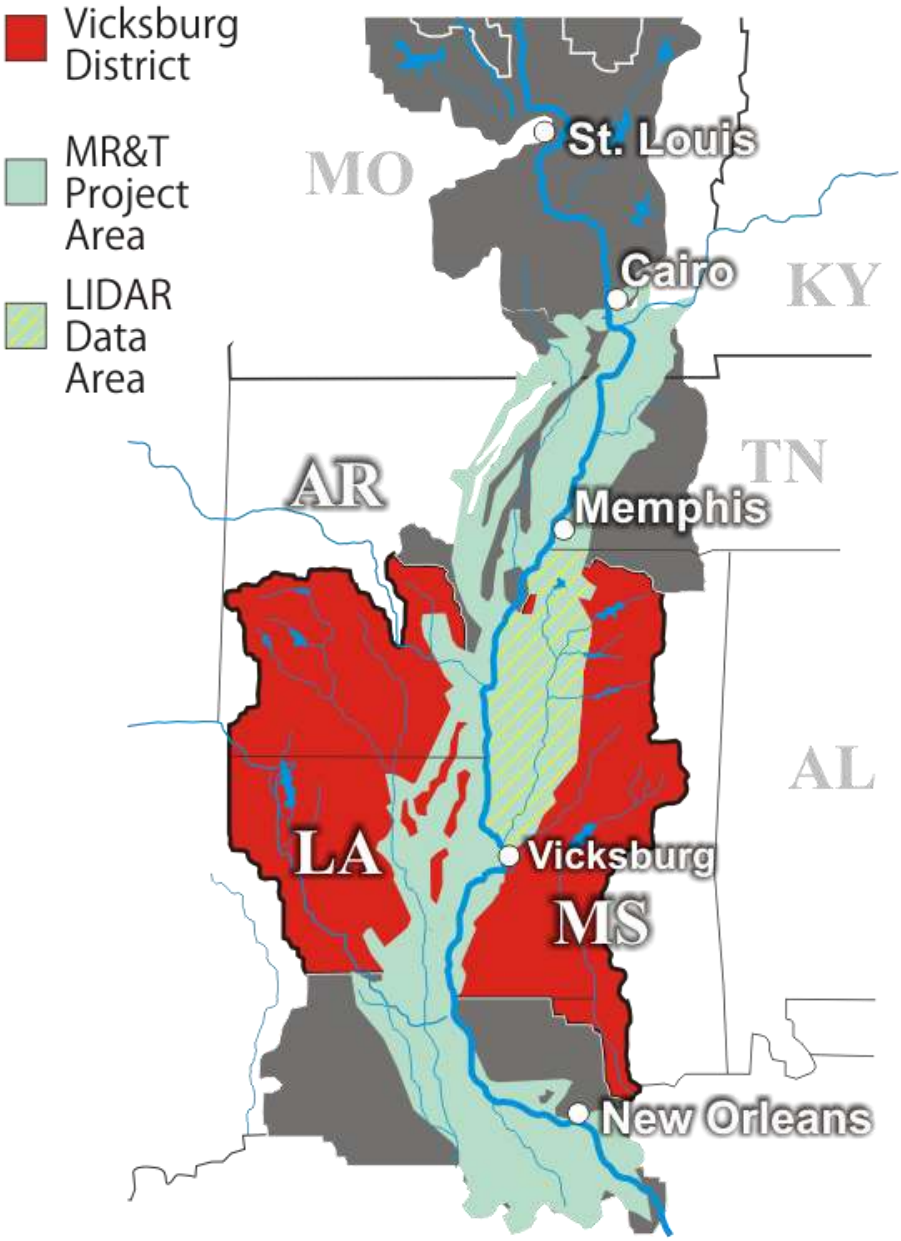
MR&T INVESTIGATIONS

The major objective of the MR&T Investigations program is to study projects that provide solutions to water resource problems for the area within the MR&T authorized project, generally from the area along the Mississippi River from Cairo, IL, to the Gulf of Mexico. The Corps undertakes studies in response to directives (authorizations) from Congress. Congressional authorizations are contained in public law and in resolutions of either the House Public Works and Transportation Committee or the Senate Environment and Public Works Committee.

In the past, studies were conducted in two phases - reconnaissance and feasibility. WRDA 2014 revised the implementation for studies to: feasibility phase; cost no more than $3 million (Federal and non-Federal) and have 3 levels of vertical coordination.

The report results in recommendations to Congress for or against Federal participation in solutions to the water resource problem and opportunities identified in the study. A recommendation for Federal participation identifies a recommended plan/project, generally for construction authorization and funding.

The Preconstruction, Engineering and Design Studies (PED) phase of project development encompasses all planning and engineering necessary for project construction, after release of the report and Division Engineer's public notice on a favorable study. Preparation of design memorandums and plans and specifications will be cost shared in accordance with the cost sharing required for project construction.



Collection and Study of Basic Data, Mississippi

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Collection and Study of Basic Data, AR, LA, MS, IL, TN, MO, KY

Flood Control Acts of 1928, Sections 1, 2, 3, and 10

Mississippi River and Tributaries, Investigations (FRM)

Location: The Collection and Study of Basic Data project is located throughout the Mississippi Valley Division.

Description: Data collected consist of information on stream flow, sediments and nutrients, rainfall, floods, water quality and quantity, aquatic resource monitoring and other items of related hydrologic nature. Regional investigations of flowline issues along with geomorphic and potamology (G&P) issues that arose from 2011 flood must be reviewed.

Issues: Data collected under this activity are for authorized flood control projects for which funds have been appropriated in the Memphis, Vicksburg, and New Orleans Districts. Data are used by numerous agencies and the public to determine when flooding will occur and to plan for any evacuations. In addition, the Environmental Protection Agency and state environmental quality agencies are now recognizing water quality and quantity as critical elements in environmental protection planning and construction. Aquatic resources are a good indication of the water quality and quantity of a particular stream. These data are vital to show projects are in conformance with state and Federal laws.

Importance: Data collection is essential in the planning, design, construction, and operation and maintenance of authorized flood control projects, especially significant after the Flood of 2011. The hydraulic and hydrologic data are being reviewed for how the MR&T system performed during the 2011 flood, evaluate any needed changes in the flowline/water management of the system, and identify areas/reaches in which the current 1976 Refined Project Flood Flowline may need revision. G&P issues are directly related to the flowline and future operation of the system.

Risk: Without adequate funding, the Mississippi River Commission would lose the ability to make accurate flood predictions and to determine whether the project flowline is correct to provide Project Design Flood protection to the Valley as directed by Congress. G&P studies must continue due to changes observed during the 2011 Flood and for utilization in long term management.

Consequence: If essential hydraulic and hydrologic and water quality data could not be collected and therefore data would not be available to accurately predict future flood and drought conditions on major rivers within the Lower Mississippi Valley.

Activities for FY 15: Funds are being used to collect essential basic data used in planning and design of authorized flood control projects. Funds are also being used for aquatic and water quality and quantity monitoring, conduct regional review of numerous Hydraulic and Hydrologic data, flowline, sedimentation and G&P related issues and/or concerns that were discovered during the 2011 flood.

Acquisition Strategy: No construction contracts are scheduled to be awarded in FY 15.

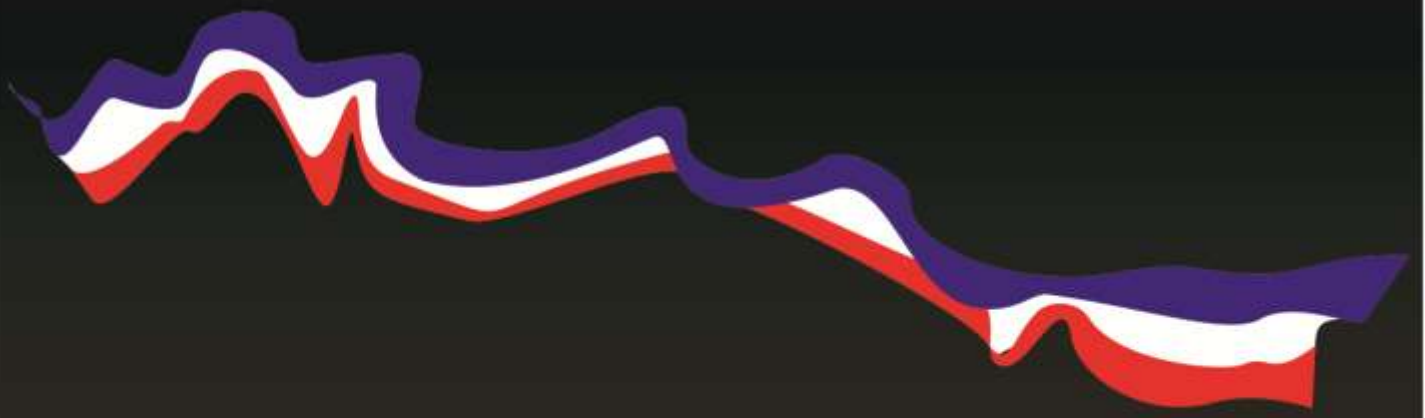
Amount That Could Be Used in FY 16: Budget funds of $9,334,000 will utilized to continue the Regional flowline ($5,000,000) and G&P studies ($4,034,000), and $300,000 will be used to collect basic steam flow data. Additional funds of $2,600,000 could be utilized for stream flow data, measurements and archive existing data ($2,000,000) water quality and quantity and aquatic monitoring ($600,000).

Project Sponsor/Customer: Levee boards along the Mississippi River from Cape Girardeau, Missouri to Head of Passes, Louisiana.

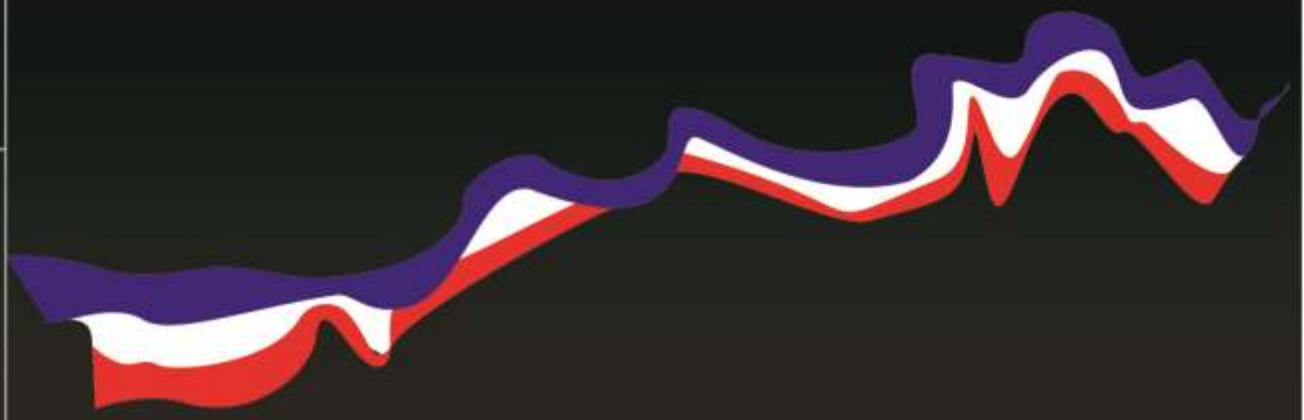
Congressional Interest: Senate: Boozman and Cotton (AR), Cassidy and Vitter (LA), Cochran and Wicker (MS), Alexander and Corker (TN), McConnell and Rand (KY), Blunt and McCaskill (MO), and Durbin and Kirk (IL); House: Crawford (AR-1), Westerman (AR-4), Scalise (LA-1), Fleming (LA-4), Abraham (LA-5), TBD (MS-1), Thompson (MS-2), Fincher (TN-8), Cohen (TN-9), Whitfield (KY-11), Smith (MO-8), and Bost (IL-12).

Phase	Estimated Federal Cost of Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
Feasibility	N/A	$9,280,000	$9,334,000	$11,934,000

MR&T CONSTRUCTION

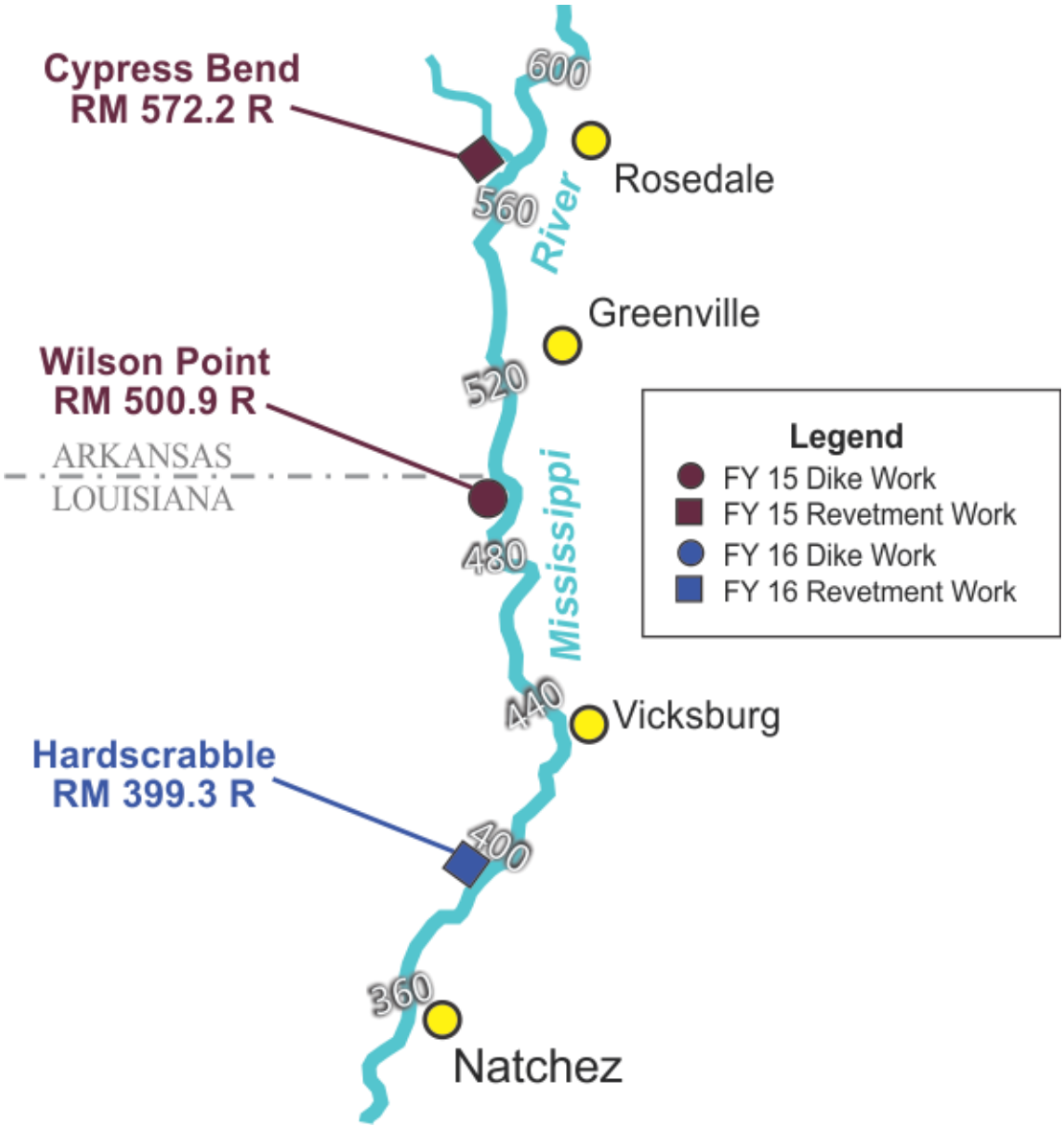


MR&T CONSTRUCTION



MR&T CONSTRUCTION

The objective of the MR&T construction program is to construct and complete authorized and appropriated MR&T projects as economically and quickly as practicable within program constraints and consistent with current national priorities.



Mississippi River Channel Improvement

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Mississippi River Channel Improvement, AR, LA, & MS

Flood Control Acts of 1928 (Section 1); 1936 (Section 1); 1938 (Section 4); 1941 (Section 3); 1944 (Section 10); 1962 (Section 203); 1965 (Section 201, 204); 1966 (Section 202, 203); and 1970 (Section 207)

Mississippi River and Tributaries, Construction (FRM, NAV)

Location: The project is located in the Mississippi River and along its banks from the vicinity of Cessions Towhead at River Mile 616 AHP, to Union Point at River Mile 326 AHP, a distance of approximately 290 miles.

Description: The plan of improvement consists of stabilization of the Mississippi River main channel in a desirable alignment for purposes of flood control and navigation by means of revetments, river training structures (dikes, chevrons, and bendway weirs), and improvement dredging.

Issues: The Mississippi River channel improvement construction project is not complete. The remaining planned revetments and dikes are required to provide a complete system capable of providing protection for the flood risk management levees and providing an efficient channel for commercial navigation. The plant used for sinking is at the end of its useful life and requires $5 million per year in maintenance alone.

Importance: River training structures improve navigation conditions, stabilize bends, and reduce required maintenance dredging requirements. Revetment construction maintains channel alignment and protects the banks from erosion.

Risk: Catastrophic damage to the navigation channel, river banks, and adjacent mainline levee is likely to occur if the system is not fully constructed as authorized.

Consequence: Failure to adequately fund will result in channel deterioration which would adversely impact the navigation industry in economically and efficiently transporting commodities on the Mississippi River. Continued erosion of banks and/or failure of revetments would adversely impact channel alignment and threaten the integrity of the mainline levee system.

Stone Dike Construction

Revetment Construction – Articulated Concrete Mat (ACM)

Activities for FY 15: Funds are being used for dike construction at Wilson Point, LA, and for revetment construction at Cypress Bend, AR. Funds are also being used to fund stone bank paving associated with revetment construction.

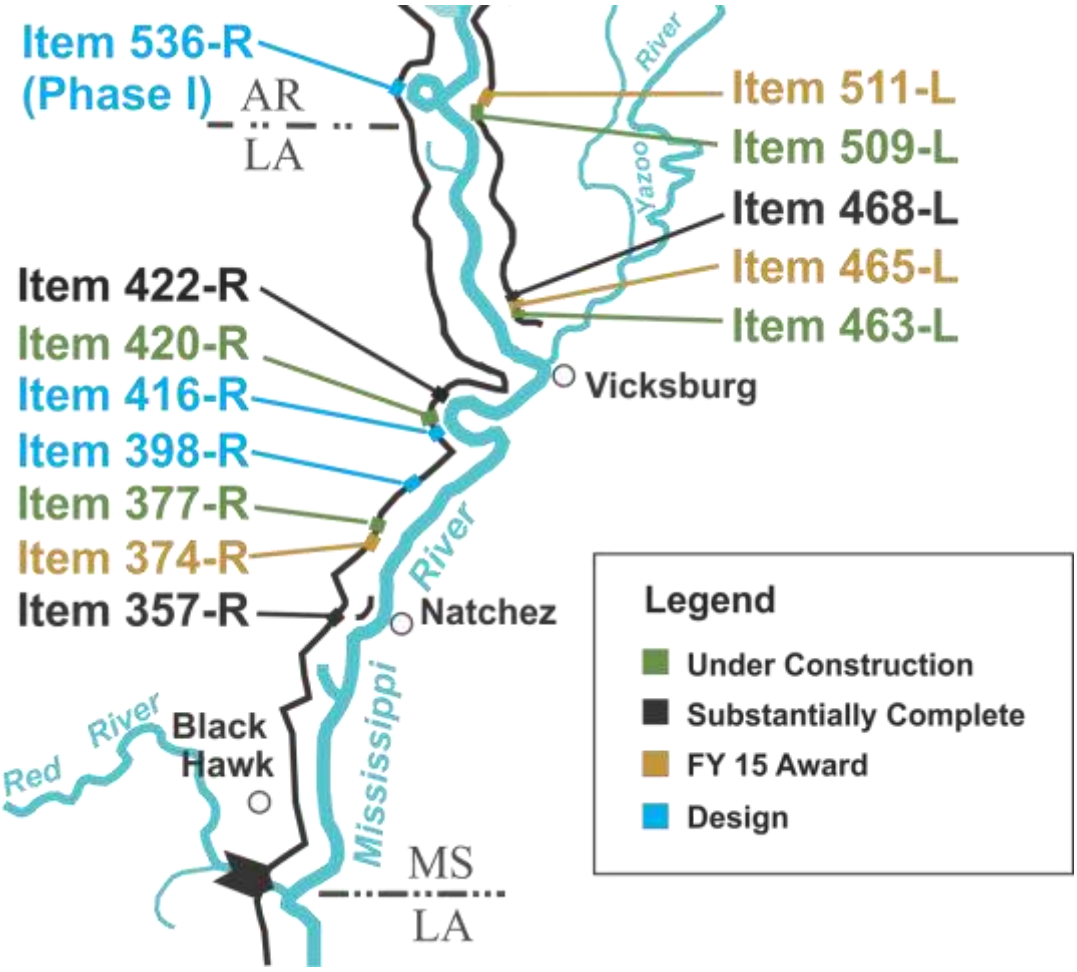
Acquisition Strategy Two contracts were awarded in FY 15.

Amount That Could Be Used in FY 16: Budgeted funds of $18,146,000 will be used continue design, construction and construction management of dikes, stone bank paving and revetments. Additional funds in the amount of $20,036,000 could be used to fully fund dike construction at Anconia Chute, AR, Refuge Dikes Turndowns, and Refuge MS and to continue revetment sinking reinforcement at Goldbottom 2, design a new articulated concrete Mat Sinking Unit and reinforcement sinking to maintain existing revetment .

Project Sponsor/Customer: Navigation industry, environmental community, and Mississippi Levee, 5th Louisiana Levee, and Southeast Arkansas Levee Boards.

Congressional Interest: Senate: Boozman and Cotton (AR), Cassidy and Vitter (LA), Cochran and Wicker (MS); House: Crawford (AR-1), Westerman (AR-4), Abraham (LA-5), Thompson (MS-2), and Harper (MS-3).

Estimated Federal Cost of Phase	Federal Funding Thru FY 14	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
$1,251,000,000	$1,023,458,000	$16,600,000	$18,146,000	38,182,000



Mississippi River Levees - Construction

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet

Mississippi River Levees, AR, LA & MS

Flood Control Acts of 1928, 1936, 1941, 1944, 1946, 1950, 1954, 1962, 1965, 1968, River Basin Monetary Authorization Act of 1971, WRDA 1992, Sec 103, WRDA 2000, Section 508

Mississippi River and Tributaries, Construction (FRM)

Location: The Mississippi River levee system on the west bank extends from Allenville, Missouri, on the Little River Diversion Channel generally southward to Venice, Louisiana, and on the east bank from Hickman, Kentucky, to opposite Venice, Louisiana, except where interrupted by hills and tributary streams. Included in the system are the levees, which protect Mounds, Mound City and Cairo, Illinois, and the New Madrid Levee and Floodway.

Description: Improvement provides for raising, strengthening, and in some cases, extending existing levees to provide protection against the project design flood.

Issues: There are currently 110 miles remaining of deficient levees within the Vicksburg District.

Importance: The Mississippi River Levees are designed to protect people, property, infrastructure, and the environment in the alluvial valley against the project design flood by confining flow to the channel between the levees and natural hill lines, except where it enters natural backwater areas or is diverted purposely into floodway areas.

Risk: Catastrophic damage is likely to occur if the system is below authorized level of protection.

Consequence: A breach in the levee could result in over 1 million acres inundated, towns and cities flooded, and lives lost. Commercial impacts include roads, agricultural and timber production. Farmland is at risk of flooding, resulting in devastation of primary economic engine of the region. Environmental losses of terrestrial habitat and wildlife would be significant.

Activities for FY 15:
Funds are being used to award Item 511L, Lake Jackson-Palmetto, MS; Item 465L, Magna Vista-Brunswick, MS and Item 374-R, Waterproof Upper Lake Concordia; for relocation of utilities; engineering and design of future items of construction; complete construction on 420R, Bayou Vidal to Elkridge, LA and 422R, Reid Bedford to King, LA; and continue construction on Item 509L, Lake Jackson-Palmetto, MS; Item 463L, Magna Vista-Brunswick, MS and Item 377R, Waterproof – Upper Lake Concordia, LA.

Acquisition Strategy: Three contracts were awarded in FY15.

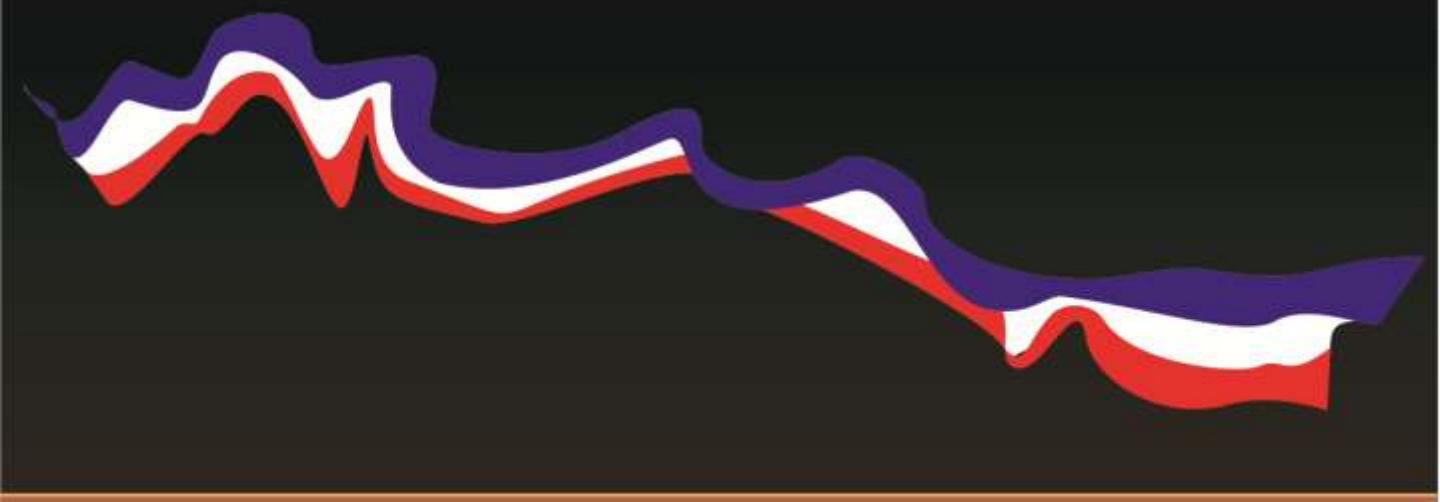
Amount That Could Be Used in FY 16:
Budgeted funds of $5,070,000 will be used to complete construction of ongoing contracts, economic evaluation and engineering design on a future item of construction. Additional funds in the amount of $18,125,000 could be used to construct Leland–Vaucluse, AR, Item 536-R Phase I ($9,000,000), Magna Vista–Brunswick, MS, EB Paving, Items 468-L/463-L ($4,750,000), Willow Point-Youngs Point, LA, Item 457-R Relief Wells ($1,875,000), Supplemental EIS ($500,000) and continued engineering design for future construction ($2,000,000).

Project Sponsor/Customer: Mississippi Levee Board, Fifth Louisiana Levee Board, and Southeast Arkansas Levee District.

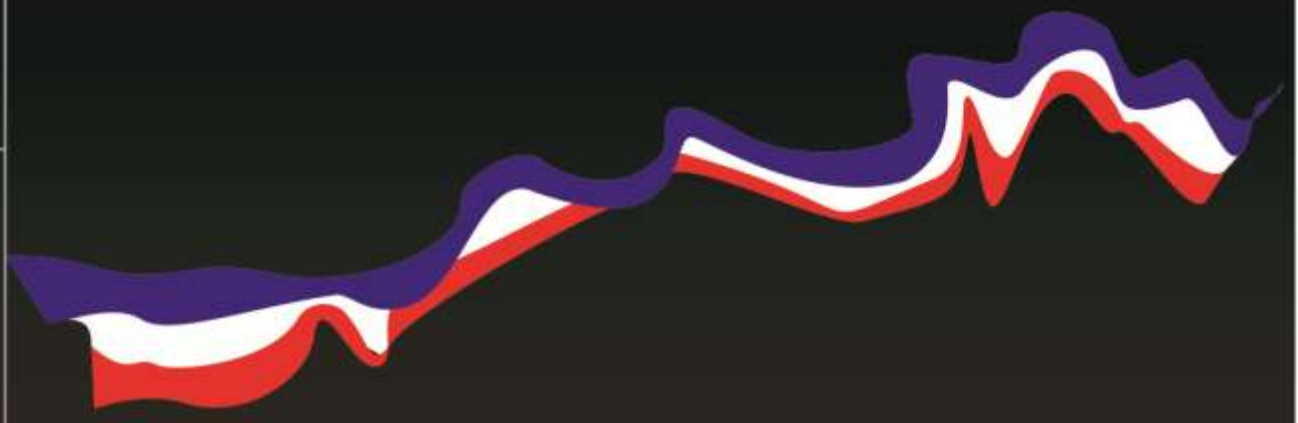
Congressional Interest: Senate: Boozman and Cotton (AR), Cassidy and Vitter (LA), Cochran and Wicker (MS); House: Crawford (AR-1), Westerman (AR-4), Scalise (LA-01), Abraham (LA-5), Thompson (MS-2).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY14	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
Construction	$1,161,000,000	$703,667,302	$25,588,000	$5,070,000	$23,195,000

MR&T Maintenance

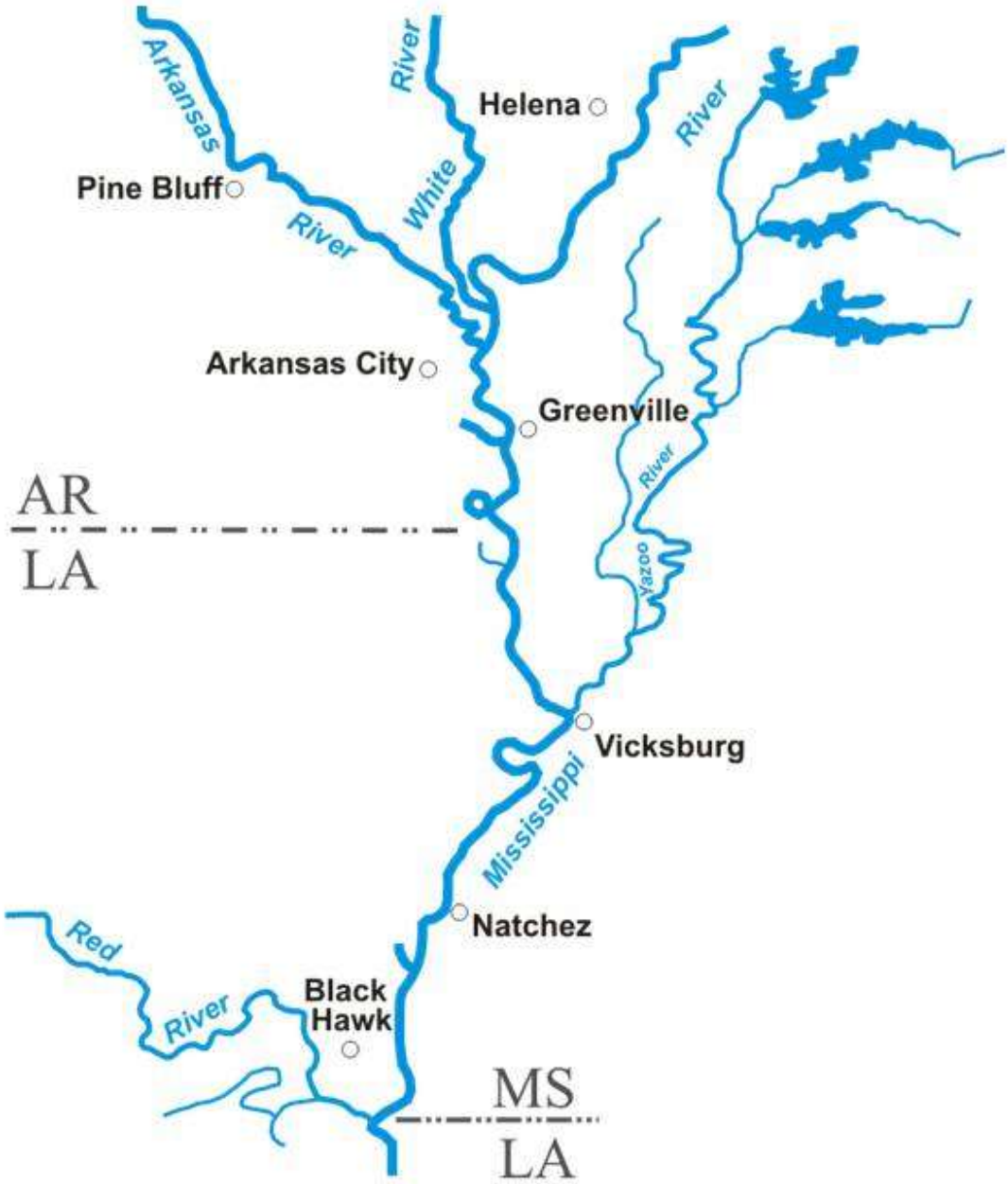


MR&T MAINTENANCE



MR&T MAINTENANCE

The MR&T Maintenance program focuses on the need to preserve the existing infrastructure and provide justified levels of service at the least cost.



Vicksburg District
Mississippi River Channel Improvement, Revetment

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Mississippi River Channel Improvement, AR, LA, & MS

FCA 1928, Sec 1; 1936, Sec 1; 1938, Sec 4; 1941, Sec 3; 1944, Sec 10; 1962, Sec 203; 1965, Sec 201, 204; 1966, Sec 202, 203; and 1970, Sec 207

Mississippi River and Tributaries, Maintenance (FRM)

Location: The project is located in the Mississippi River and along its banks from the vicinity of Cessions Towhead at River Mile 616 AHP to Union Point at River Mile 326 AHP, a distance of approximately 290 miles.

Description: The plan of improvement consists of stabilization of the Mississippi River main channel banks by way of maintaining existing revetments to prevent erosion that would threaten the integrity of the mainline levees.

Issues: The Lower Mississippi River experienced the flood of record at many locations during 2011. As a result of this flood, many channel improvement revetments and dikes were damaged. The revetment flood damage to revetments has been repaired. However, other revetments have been damaged and many revetments are nearing or have exceeded their expected design life.

Importance: Revetment maintenance insures that desirable channel alignment can continue to be provided and the mainline levee can be protected from channel migration due to bankline erosion as revetments fail.

Risk: Catastrophic damage to the existing revetments, river banks and adjacent mainline levee is likely to occur if the system is not maintained as constructed.

Consequence: Failure to adequately fund will result in channel deterioration and continued damage to and/or failure of existing revetments which would adversely impact channel alignment and threaten the integrity of the mainline levee system.

Revetment – Articulated Concrete Mat

Activities for FY 15: Funds are being used to complete damage repairs at priority sites Milliken Bend, LA – RM 453R and Lake Karnac, MS/LA – RM 419L. Funds are also being used for stone bank paving at Milliken Bend and for stone repairs to both revetments and dikes. Funds are being used to purchase articulated concrete mat in advance of scheduled sinking.

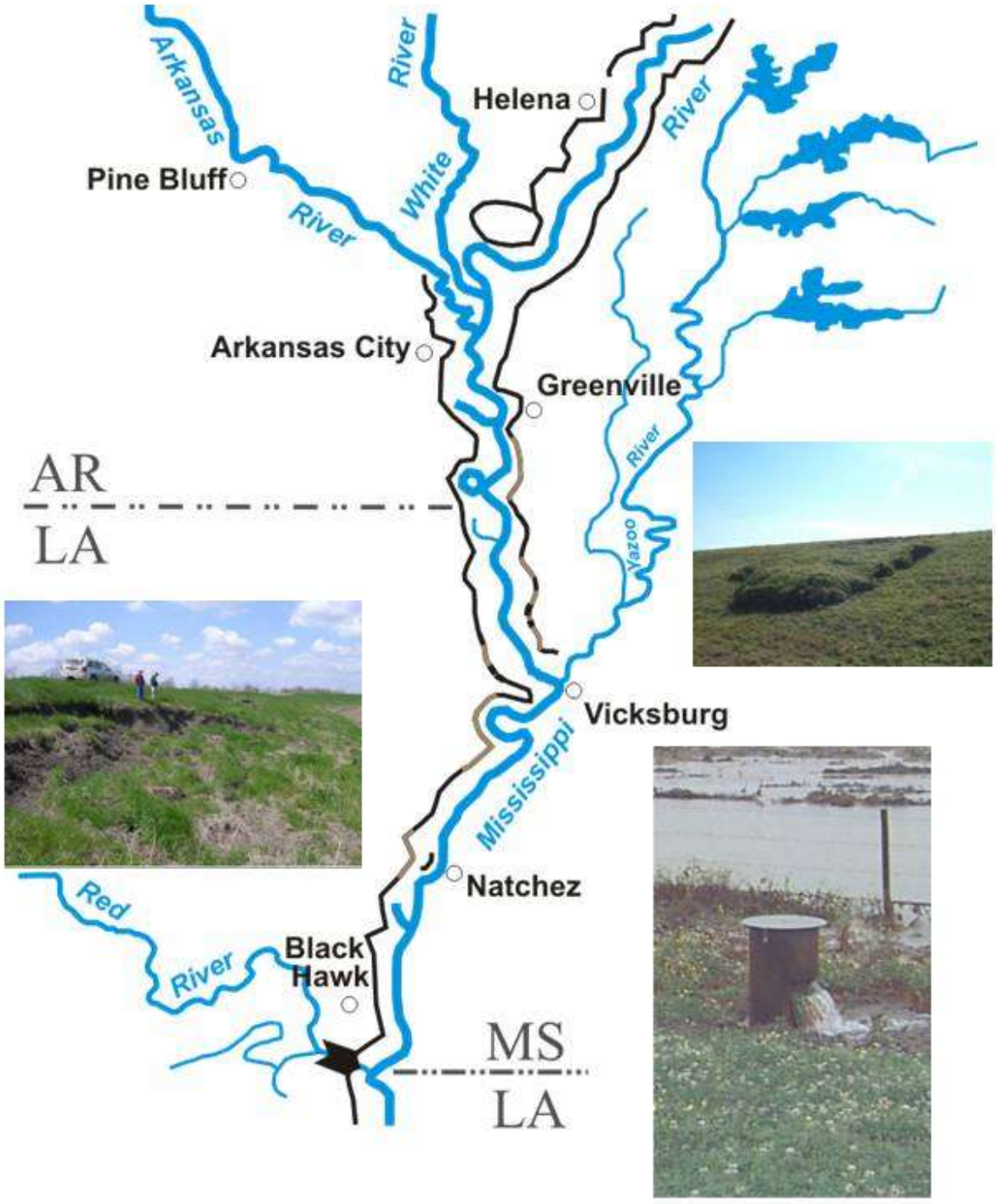
Acquisition Strategy: ACM Revetment repairs are conducted by hired labor. Two contracts were awarded during FY 15.

Amount That Could Be Used in FY 16: Budgeted funds of $15,016,000 will be used to perform routine maintenance on existing revetments. Specific sites will be determined by detailed site surveys. Additional funds of $11,900,000 could be used to fully fund stone repairs, stone bank paving, additional revetment repairs and dike repair

Project Sponsor/Customer: Mississippi Levee Board, 5th Louisiana Levee Board, and Southeast Arkansas Levee Board

Congressional Interest: Senate: Boozman and Cotton (AR), Vitter and Cassidy (LA), Cochran and Wicker (MS), House: Crawford (AR-1), Westerman (AR-4), Scalise (LA-01), Abraham (LA-5), Fleming (LA-04), Thompson (MS-2), and Harper (MS-3).

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
Maintenance	$15,052,000	$15,016,000	$26,916,000



Vicksburg District
Mississippi River Levees

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet

Mississippi River Levees, AR, LA & MS

FCA's 1928, 1936, 1938, 1941, 1944, 1946, 1950, 1954, 1962, 1965, 1968, River Basin Monetary Authorization Act of 1971, WRDA 92, WRDA 00

Mississippi River and Tributaries, Maintenance (FRM)

Location: The Mississippi River Levee system on the west bank extends from Allenville, MO, southward to Venice, LA, and on the east bank from Hickman, KY, to opposite Venice, LA, except where interrupted by hills and tributary streams.

Description: The Mississippi River Levee System provides flood risk reduction to over 23 thousand square miles in the alluvial valley subject to flooding by the project flood. The alluvial valley is over 650 miles long and varies in width from 20 to 90 miles. Numerous railroads, highways, and airfields connecting the major transportation centers lie within the protected area as do several major transcontinental communication routes. In addition to highly developed agricultural areas, the levees afford protection to urban areas and many industries.

Issues: Levee slides are beginning to appear along the Mississippi River levee system on the East and West bank as a result of normal river fluctuations. Subsequent dry weather results in cracking of the levee surface and when rains soak the levee, a superficial slide occurs that requires repair to prevent further deterioration of the levee.

Importance: Although levee slides are an expected occurrence in any levee system, the repair of levee slides is of prime importance in maintaining a robust levee system capable of performing its design function during all flood events up to and including the project design flood.

Risk: Leaving slides in disrepair may lead to levee safety issues, levee certification issues, reduced levels of flood protection, and increased risk of flood damage.

Consequence: Failure to operate and maintain the levees appropriately jeopardizes project integrity, and places the safety of the public at increased risk.

(Typical MRL Levee Slide)

Activities for FY 15: Funds are being used to perform routine operation and maintenance activities, repair levee slides, mitigation management and resurface levees.

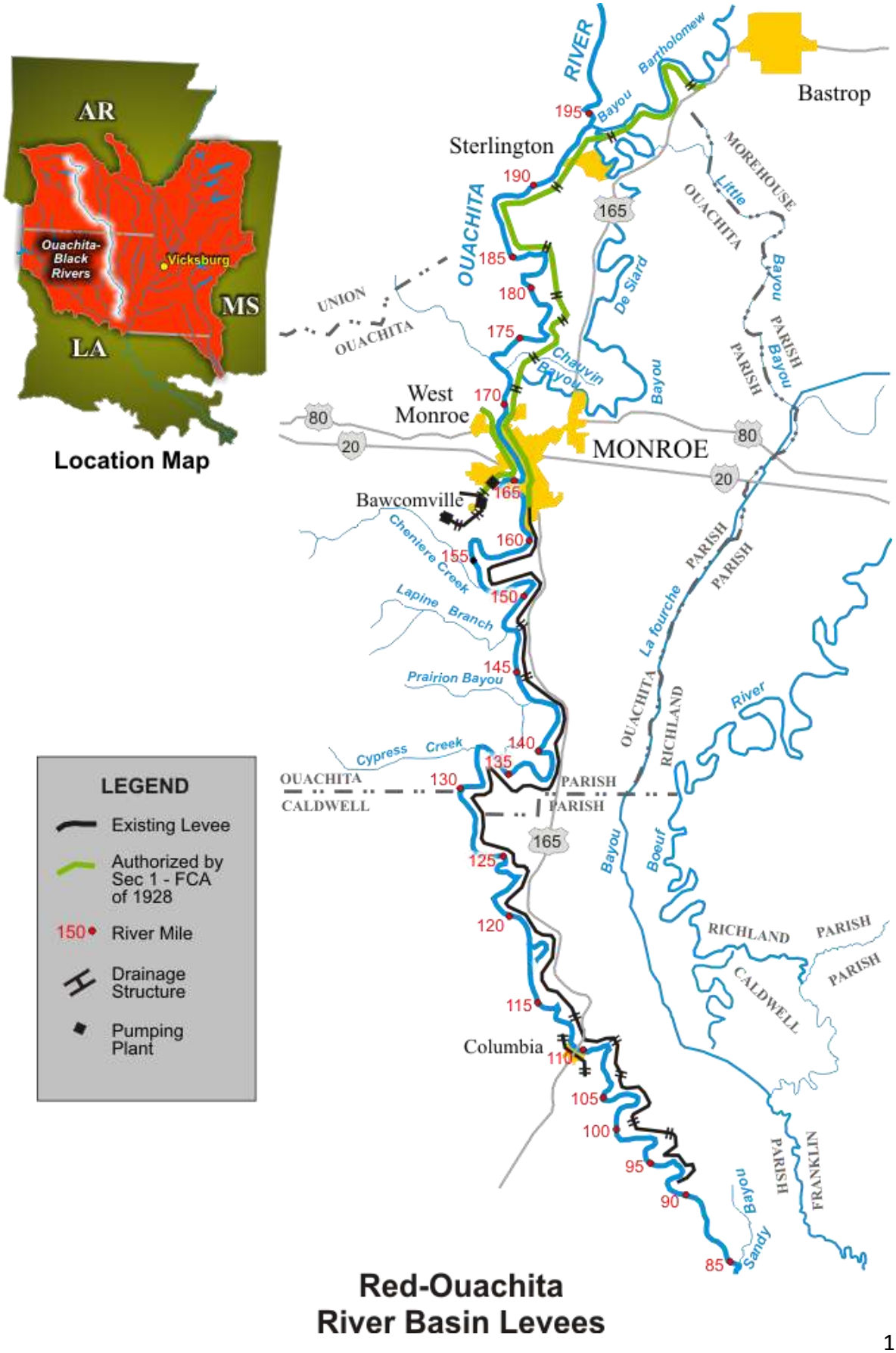
Acquisition Strategy: No contracts are scheduled to be awarded in FY15.

Amount That Could Be Used in FY 16: Budgeted funds of $2,331,000 will be used to perform routine operation and maintenance activities. Additional funds in the amount of $3,055,000 could be used for repair of levee slides ($1,200,000), gravel surfacing ($650,000), repair damages to mitigation areas such as reforestation and roads ($175,000), and operation and maintenance of the museum ($980,000).

Project Sponsor/Customer: 5th LA Levee District, Southeast Arkansas Levee District, & the Board of Mississippi Levee Commissioners

Congressional Interest: Senate: Boozman and Cotton (AR), Cassidy and Vitter (LA), Cochran and Wicker (MS); House: Crawford (AR-1), Westerman (AR-4), Scalise (LA-1), Fleming (LA-4), Abraham (LA-5), Thompson (MS-2).

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
Maintenance	$3,139,000	$2,331,000	$5,386,000



Red-Ouachita River Basin Levees

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Red-Ouachita Basin Levees, LA

WRDA 2007, Section 3013 for Section 1. Additional authorization is required for remaining sections.

Mississippi River and Tributaries, Maintenance (FRM)

Location: The Ouachita River Levee system runs up the east bank of the Ouachita River from Sandy Bayou to Bastrop, LA on Bayou Bartholomew including flood protection for Monroe, and ring levees on the west bank of the Ouachita River at Columbia, Bawcomville, and West Monroe and the Calion Protection Works.

Description: The Ouachita River levees consist of 5 separate levee systems (one on the left or east bank and 4 on the right or west bank:1). East bank ORL consists of 111.6 miles of levee along the east bank containing 15 pump stations, 42 gravity drainage structures and 10,300 ft of floodwall (1,750 ft of folding floodwall and 8,550 ft of stationary I-wall floodwall); 2). West Monroe levee consists of 7 miles of levee containing 3 pumping stations, 6 drainage structures and 8,500 ft of stationary I-wall floodwall; 3). Bawcomville Area levee consists of 3 miles of levee containing 2 pumping stations and 2 drainage structures; 4). Columbia Protection Works consists of 7,300 ft of levee containing a pumping station and 3 drainage structures; 5). Calion Protection Works consists of 3.2 miles of levee containing a pumping station and 2 drainage structures.

Issues: Approximately 40 miles of levee on the East Bank contain isolated bank caving sites encroaching on the levee toe that could affect levee accreditation for the National Flood Insurance Program. Critical erosion problems occur along the Ouachita and Black Rivers that threaten to cause catastrophic flooding and hindrance to navigation.

Importance: This erosion endangers levees, cities, historic sites, and other properties of value to residents of the area. This problem places considerable burden on the municipalities, counties, parishes, levee districts, and navigation interests who have to deal with the problems associated with the continued erosive nature of the river.

Risk: Further endangerment of levees, cities, historic sites and other properties.

Consequence: Encroaching on the levee toes could affect levee certification for the National Flood Insurance Program.

Activities for FY 15: None.

Acquisition Strategy: No contracts are scheduled to be awarded in FY 15.

Amount That Could Be Used in FY 16: There are no funds in the FY16 President's Budget. Funds in the amount of $500,000 could be used for repairs to deficiencies affecting levee stability and further investigation of other issues along the levee/floodwall.

Project Sponsor/Customer: Ouachita River Valley Association, Tensas Basin Levee District

Congressional Interest: Senate: Cassidy and Vitter (LA); House: Abraham (LA-5).

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
Maintenance	$0	$0	$500,000

Tensas Basin, Boeuf-Tensas River, Arkansas and Louisiana

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet

Tensas Basin, Boeuf-Tensas River, AR and LA

Flood Control Acts of 1944, 1946, 1950, 1958, 1962, 1965, 1968, and WRDA of 1986

Mississippi River and Tributaries, Maintenance (FRM)

Location: The flood control project is located in central and northeast Louisiana and southeast Arkansas and includes the Lake Chicot pumping plant.

Description: The project provides for channel improvement for flood control and to afford adequate outlet drainage for 5,300 square miles in southeast Arkansas and northeast Louisiana.

Issues: Critical work is needed to ensure the integrity of the project to protect people and property from flooding. This critical work consists of inspecting the under slab and backfill drains for siltation to ensure proper drainage of the substrate under the downstream slab of the pumping plant to prevent uplift. The tributaries in the Boeuf-Tensas Basin have aging weirs that have already failed or are in danger of failing and need replacing. Severe erosion and corrosion have been discovered on multiple pumping plant components that need repairs to prevent catastrophic pump failure.

Importance: The Lake Chicot Pumping Plant diverts local storm-water runoff into the Mississippi River upstream of Lake Chicot in Chicot County, AR. The proper operation of this pumping plant significantly reduces the amount of storm runoff that must be transferred by the Boeuf-Tensas River system from southeast Arkansas through Louisiana into the Ouachita-Black River system. The portion of the Boeuf-Tensas River system in southeast Arkansas is contained by a series of weirs in the various tributaries that are 50-60 years old and have reached their design and in some cases their useful life. These weirs effectively control the rate of runoff and the amount of in-channel vegetation present in the tributary channels reducing the annual maintenance costs for these channels to the local sponsors of the project.

Risk: Leaving the project in disrepair may lead to reduced levels of flood protection and flooding in southeast Arkansas.

Consequence: Failure to operate and maintain channels and weirs would jeopardize the project integrity and benefits.

Lake Chicot Pump Plant

Activities for FY 15: Funds are being used to continue operation and maintenance at a reduced level of service) and repair failed electrical bus to the Lake Chicot Pumping Plant.

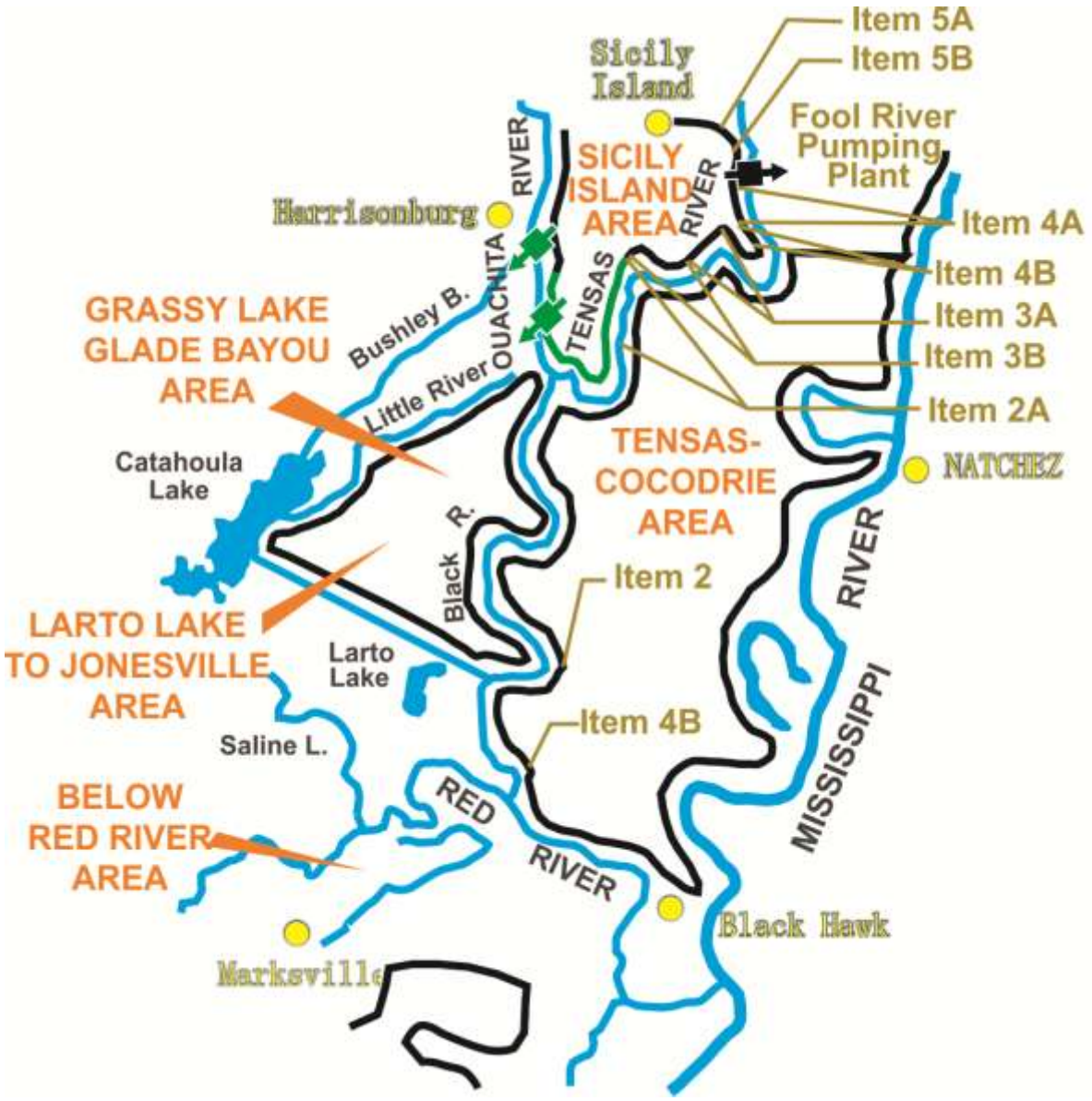
Acquisition Strategy: No contracts are scheduled to be awarded in FY15.

Amount That Could Be Used in FY 16: Budgeted funds of $2,579,000 will be used to continue operation and maintenance of project features, gather data, contract guards, perform water control analysis, inspect the bridge and hydraulic steel structure and perform work needed to ensure the integrity of the project. Additional funds in the amount of $3,970,000 could be used for repairs for two impeller bell housings/cones ($400,000),replace Big Bayou weir at mile 9.68 ($920,000), design replacement for Big Bayou weir at 13.92 ($400,000), inspect underslab and backfill drains at Lake Chicot Pumping plant ($350,000), upgrade cranes ($920,000) and backlog maintenance items ($1,205,000).

Project Sponsor/Customer: Tensas Basin Levee District

Congressional Interest: Senate: Boozman, Cotton (AR); Vitter, Cassidy (LA); House: Westerman (AR-4), Abraham (LA-5).

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
Maintenance	2,758,900	$2,579,000	$6,559,000



Red River Backwater Area

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet

Tensas Basin, Red River Backwater, LA

Flood Control Acts of 1941, 1944, 1946, 1950, 1958, 1962, 1965, 1968, and WRDA of 1986

Mississippi River and Tributaries, Maintenance (FRM)

Location: The flood control project is located in central and northeast Louisiana.

Description: The lower basin features include levees, drainage structures and pumping plants.

Issues: Critical work is needed to ensure the integrity of the project to protect people and property from flooding. This work consists of repairing deteriorating drainage structures, pumping plant roofs and placing additional granular surfacing on the Red River Backwater Levee to insure access during flood events.

Importance: The project provides flood protection to the from the Mainline Mississippi River Levee on the west bank of the in the vicinity of Shaw, Louisiana, westward and northward to the vicinity of Newlight, Louisiana, for the protection of that part of the Red River Backwater area known as the Tensas-Cocodrie Area, and for the protection of a larger area without jeopardizing the safety and integrity of the main Mississippi River Levee. Flood damage reduction measures include authorized extensions to the project providing loop levees and appurtenant drainage facilities in the Larto Lake to Jonesville Area, below Red River area; in the Sicily Island area; and a 4,000-cubic-foot-per-second pumping plant in the Tensas-Cocodrie area, as well as the Fools River and HaHa Bayou Pumping Plants.

Risk: Leaving the project in disrepair may lead to levee safety issues, levee certification issues and reduced levels of flood protection and higher risks.

Consequence: Failure to operate and maintain channels and weirs would jeopardize the project integrity and benefits.

Tensas-Cocodrie Pumping Plant

Activities Status for FY 15: Funds are being used to continue operation and maintenance at a reduced level of service.

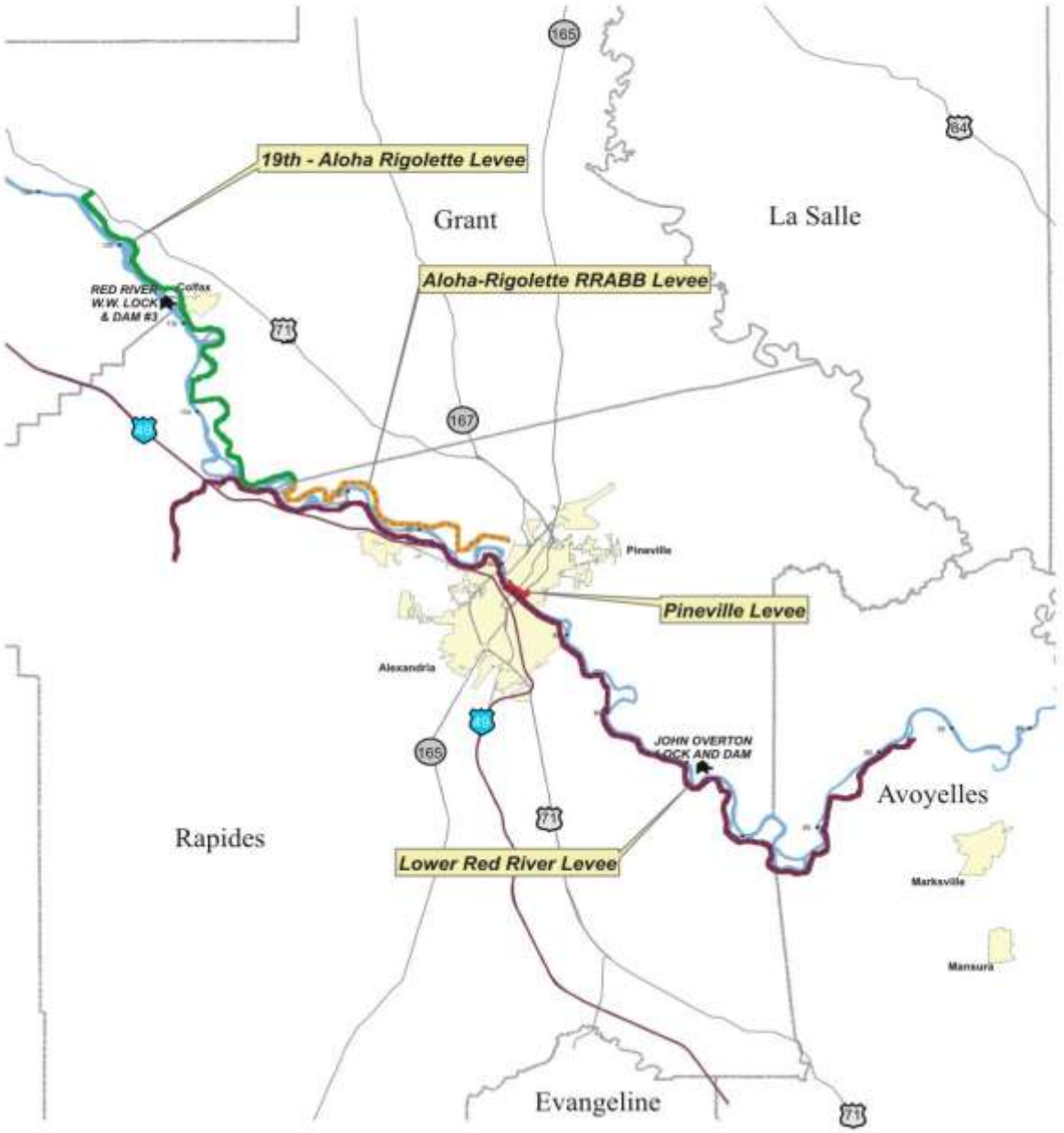
Acquisition Strategy: No contracts are schedule for FY 15.

Amount That Could Be Used in FY 16: Budgeted funds of $3,345,000 will be used to continue operation and maintenance of project features including manned and unmanned flood control structures (Tensas-Cocodrie Pumping Plant, HaHa Bayou Pumping Plant, and Fools River Pumping Plant). Additional funds in the amount of $1,250,000 could be used to repair levees and structures ($500,000) and construction of Larto lake-Jonesville levee setback and berm ($750,000)

Project Sponsor/Customer: 5th Louisiana Levee District, Tensas Basin Levee District

Congressional Interest: Senate: Cassidy and Vitter (LA); House: Abraham (LA-5).

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
Maintenance	$3,386,400	$3,345,000	$4,595,000



Lower Red River,
South Bank Levees

US Army Corps of Engineers
Vicksburg District

Project Fact Sheet
Lower Red River, South Bank Levees, LA
Flood Control Act of 1928

Mississippi River and Tributaries, Maintenance (FRM)

Location: The levee system extends from Red River mile 67 at Moncla, Louisiana, in Avoyelles Parish to mile 126 at Hot Wells, Louisiana, in Rapides Parish.

Description: The lower basin features include levees, drainage structures and pumping plants.

Issues: The Lower Red River, South Bank levees have underseepage issues at the toe of the levees that has resulted in a negative levee evaluation and de-certification of the South Bank Levees. HUD funds are being used to perform investigations and design to prepare contract documents for addition of berms and relief wells necessary to bring the levee back to certifiable condition. Rapides Parish will perform solicitation and award of contract.

Importance: The Lower Red River, South Bank levees and appurtenances provide flood protection from the Red and Mississippi Rivers for Alexandria, LA and areas southeast of that city.

Risk: Leaving the project in disrepair may lead to flooding issues and reduced levels of flood protection in the project area.

Consequence: Failure to operate and maintain channels and weirs would jeopardize the project integrity and benefits.


Bayou Rapides Structure

Activities for FY 15: Funds are being used to continue routine operation and maintenance.

Acquisition Strategy: No contracts are scheduled to be awarded in FY 15.

Amount That Could Be Used in FY 16: Budgeted funds of $498,000 will be used for routine operation and maintenance. Additional funds in the amount of $150,000 could be used for gravel surfacing.

Project Sponsor/Customer: N/A

Congressional Interest: Senate: Cassidy and Vitter (LA); House: Fleming (LA-4).

Phase	FY 15 Allocation	FY 16 Budget	FY 16 Total Capability
Maintenance	$396,800	$498,000	$648,000

Floodwall
Monroe, LA

Monroe Floodwall

U. S. ARMY CORPS OF ENGINEERS BUILDING STRONG

Project Description:
The East Bank Ouachita River Levee was constructed under the authority of the Flood Control Act of 1928. The levee extends Bastrop, Louisiana in the north along the south bank of Bayou Bartholomew and the east bank of the Ouachita River in Ouachita Parish to Caldwell Parish. The floodwall items located in Monroe are non-consecutive reaches and have a total length of approximately 10,300 feet. The floodwalls consist of both folding walls and stationary walls. The stationary floodwalls are part of the MR&T project.

Main Points:

- The stationary Monroe Floodwall was constructed in the 1930's.
- The floodwall was initially inspected by the Corps for joint spalling in April 2012 at the request of Mr. Stringer of the Tensas Basin Levee Board.
- A slope indicator pipe was installed in September 2013 to detect/monitor movement.
- Re-inspected May 2014 due to additional movement. Spalling/cracking had worsened and spread to additional monoliths. 3140 feet of wall is currently affected.
- In August 2014, excavations at two locations along the floodwall revealed steel H-pile and tieback cables that appeared to be in good condition.
- A Levee and Floodwall Screening has been approved at MSC level. The next step is presentation to the Levee Senior Oversight Group.
- Consequence Data from the levee screening:
    - Population at Risk: 109,024
    - Estimated Loss of Life Breach Prior to Overtopping: 61
    - Number of Structures Inundated: 45,414
    - Property Damage (in 1000s): $3,901,442
- Funding in the amount of $300K for soil borings, additional slope indicators, surveys, and stability analyses was received in February 2015, with execution beginning in mid to late March. Funds for monitoring instrumentation were included in the estimate in the amount of $24,000 spread across FY16.
- The surveying portion of the project is nearly complete, with the only surveying left being the soil boring locations that will be surveyed once drilling operations have been completed. The surveying portion of the requested funding ($80,000) will be expended in FY15.
- Due to high water on the Ouachita River, the drilling portion of the project was not started in May, as originally planned. Stop-logs were placed in floodwall gaps to prepare for high water and prevented equipment from accessing the boring locations. The river has since receded and the city of Monroe has agreed to remove the stop log closures to allow access. The drilling, sampling, and lab testing portions of the requested funding ($92,235) will be expended in FY15 barring further complications.
- $74,400 of the $86,800 funded for analyses and preparation of a soils report by Geotechnical Branch in FY15 will not be executed until FY16. This is due to the delay in collecting subsurface information necessary to perform these tasks. Funds for guidance and oversight provided by the DLSPC ($20,000) will not be executed until FY16 for similar reasons.
- Cause of the movement is unknown at this time.
- Ability of floodwall to withstand project flood is uncertain.

Value to the Nation