U.S. ARMY CORPS OF ENGINEERS
CIVIL WORKS PROGRAM

CONGRESSIONAL SUBMISSION
FISCAL YEAR 2002

MISSISSIPPI VALLEY DIVISION

Budgetary information will not be released outside the Department of the Army until 3 April 2001

Justification of Estimate for Civil Functions Activities
Department of the Army, Fiscal Year 2002

MISSISSIPPI VALLEY DIVISION
Corps of Engineers

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SUMMARY MISSISSIPPI VALLEY DIVISION

	FY 2001 Allocation		FY 2002 Request		Increase or Decrease
General Investigations					
Survey	$ 8,576,000		$12,055,000		$ 3,479,000
Preconstruction Engineering and Design	10,398,000		4,645,000		- 5,753,000
Subtotal, General Investigations	$ 18,974,000		$ 16,700,000		$ - 2,274,000
Construction, General					
Construction	$208,971,000	1/	$190,400,000	2/	$ -18,571,000
Operation and Maintenance, General					
Project Operation	126,194,000		136,551,000		10,357,000
Project Maintenance	234,316,000		198,012,000		-36,304,000
Subtotal, Operation and Maintenance, General	360,510,000		334,563,000		-25,947,000
GRAND TOTAL, MISSISSIPPI VALLEY DIVISION	$588,455,000		$541,663,000		$ -46,792,000

1/ Includes $20,505,000 allocated from the Inland Waterways Trust Fund.

2/ Includes $11,872,000 allocated from the Inland Waterways Trust Fund.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
1. SURVEYS - NEW - None.					
2. SURVEYS - CONTINUING					
a. Navigation Studies: The amount of $1,125,000 is requested to continue four feasibility studies in Fiscal Year 2002.					
ARKANSAS					
Red River Navigation, Southwest Arkansas, AR Vicksburg District	3,355,000	2,182,000	275,000	450,000	448,000

The study area is located in northwest Louisiana and southwest Arkansas and includes the 135 miles of the Red River between Shreveport, Louisiana, and Index, Arkansas. The Red River throughout this reach is wide and shallow with an average slope of 0.7 foot per mile. Without the construction of locks and dams, commercial navigation would not be possible. Upon completion of the Red River Navigation Project in 1994 and the establishment of dependable navigation on the Red River from the Mississippi River to Shreveport, Louisiana, local navigation interest is now refocused on extending navigation into southwest Arkansas. Organizations supporting this extension of navigation include the Arkansas Red River Commission, the Red River Valley Association, and the Red River Waterway Commission. The Feasibility Cost-Sharing Agreement was executed 24 March 1999 with the Arkansas Red River Commission.

Fiscal Year 2001 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2002 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $5,910,000 which is to be shared on a 50/50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,310,000
Reconnaissance Phase (Federal)	400,000
Feasibility Phase (Federal)	2,955,000
Feasibility Phase (Non-Federal)	2,955,000

The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
LOUISIANA					
Atchafalaya River, Bayous Chene, Boeuf and Black, LA New Orleans District	1,750,000	0	250,000	100,000	1,400,000

The Atchafalaya River and Bayous Chene, Boeuf, and Black are located in Assumption, Iberville, and St. Mary Parishes in south-central Louisiana in the vicinity of Morgan City, Louisiana. The existing Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana navigation project provides a 20- by 400- foot access channel between the Gulf of Mexico and oil and gas rig fabrication yards and offshore oil and gas service facilities located west of Morgan City and, incidentally, to facitilies located on the Atchafalaya River in the Morgan City-Berwick area. The existing channel has a problem with fluff, a flocculant clay material that flows into the Atchafalaya Bar Channel immediately after maintenance dredging. Local interests request that the existing channel be enlarged to a project depth of 35 feet, including allowances for the effects of fluff. The study would address the feasibility of providing deeper access channels to facilities along the Atchafalaya River and Bayous Chene, Boeuf, and Black. The study purpose is commercial navigation, which is an Administration priority. The local sponsor is the Morgan City Harbor and Terminal District. In a meeting on 14 February 2001, the Commission expressed its intent to cost-share in subsequent phases of the proposed project.

Fiscal Year 2001 funds are being used to fully fund the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2002 will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,250,000
Reconnaissance Phase (Federal)	250,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase is scheduled for completion in January 2002. The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Calcasieu Lock, LA New Orleans District	3,190,000	158,000	374,000	400,000	2,258,000

Calcasieu Lock is a feature of the Gulf Intracoastal Waterway between Apalachee Bay, Florida, and the Mexican Border (Gulf Intracoastal Waterway) Project. The lock is located east of the Calcasieu River, approximately 10 miles south of Lake Charles, Louisiana, in Calcasieu Parish. The lock prevents saltwater intrusion from the Gulf of Mexico via the Calcasieu River into the Mermentau River Basin, a major rice producing area. Calcasieu Lock, which was completed in 1950, has dimensions of 13 by 75 by 1,206 feet and is structurally sound. It is becoming congested due to increasing traffic. Studies of the Gulf Intracoastal Waterway system conducted in 1992 determined that there is an immediate need for capacity increases at Bayou Sorrel and Calcasieu Locks. Feasibility studies of Bayou Sorrel Lock are underway in the Intracoastal Waterway Locks, Louisiana study. Movements through Calcasieu Lock totaled 39.8 million tons in 1996; delays at the lock averaged 2.2 hours per tow and are projected to increase.

Fiscal Year 2001 funds will be used to continue the feasibility phase of the study.

The funds requested for Fiscal Year 2002 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $3,100,000. Calcasieu Lock is a feature of the Gulf Intracoastal Waterway, which is listed in Section 206 of Public Law 95-502 as an inland waterway; therefore, the feasibility study is at full Federal expense.

The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
ILLINOIS					
Hannibal Harbor, MO Rock Island District	400,000	0	75,000	175,000	150,000

The City of Hannibal, Missouri, is located on the right-descending bank of the Mississippi River in Marion County, 309 miles above the mouth of the Ohio River. The River and Harbors Act of 19 May 1950 authorized the construction of a small boat harbor in Pool 22, Mississippi River, at Hannibal, Missouri. The harbor construction was completed in December 1958 at a Federal cost of $129,000. The city states that the existing harbor is obsolete, inadequate in size, and incompatible with its waterfront development master plan. The city will request deauthorization and abandonment of the existing harbor prior to construction of a new harbor. The existing harbor will be filled in using dredged material from the proposed new harbor. The abandoned existing harbor will become an extension of the existing river front park upon completion of the filling process. The study will address the feasibility of relocation and modernization of the Hannibal Harbor.

Fiscal Year 2001 funds are being used to initiate the reconnaissance phase. Fiscal Year 2002 funds will be used to complete the reconnaissance phase at full Federal expense, if the reconnaissance report is certified to be in accord with policy, and continue into the feasibility phase. The estimated cost of the feasibility phase is $600,000, which is to be shared on a 50-50 basis by Federal and non-Federal interest. A summary of study cost-sharing is as follows.

Total Estimated Study Cost	$700,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	300,000
Feasibility Phase (Non-Federal)	300,000

The reconnaissance phase is scheduled for completion in February 2002. The feasibility phase completion date is being determined.

Total - Navigation Studies	8,695,000	2,340,000	974,000	1,125,000	4,256,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
b. Flood Damage Prevention Studies: The amount of $1,547,000 is requested to continue seven and complete one feasibility study in Fiscal Year 2002.					
IOWA					
Des Moines and Raccoon Rivers, IA Rock Island District	1,620,000	439,000	450,000	450,000	281,000

The City of Des Moines, located in Polk County, Iowa, has several rivers and waterways that traverse the urban and fringe areas including the Des Moines River, Raccoon River, and numerous small tributaries. These areas continually sustain flood damages. During the 1993 flood, Polk County suffered more than $152,000,000 in flood damages. In addition, the county was without water and sewer for approximately a week causing the closure of most of the businesses and industry in the county. More than 3,000 properties were inundated. The City of Des Moines has had a long-standing cooperative relationship with the Corps of Engineers culminating with the recent completion of the Valley Gardens levee system and near completion of the Walnut Creek/Raccoon River levee system. However, evaluation of the city's entire flood damage prevention system identified a number of areas deemed to be deficient. Continuing flooding and bank erosion on the Des Moines River and Raccoon River have produced strong local support for additions to, or modifications of, the flood damage prevention and water resources projects within the City of Des Moines. The feasibility study would develop and evaluate alternative plans and recommend a plan to address the identified problems and opportunities. The Feasibility Cost Sharing Agreement was executed with the City of Des Moines in September 1999.

Fiscal Year 2001 funds are being used to continue the feasibility phase. Funds requested in Fiscal Year 2002 will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $3,040,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,140,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,520,000
Feasibility Phase (Non-Federal)	1,520,000

The reconnaissance phase was completed in September 1999. The feasibility phase completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
LOUISIANA					
Ascension Parish, LA New Orleans District	2,275,000	0	200,000	100,000	1.975,000

The study area is located in southeastern Louisiana and includes the entire Ascension Parish area. Ascension Parish is located between New Orleans and Baton Rouge and includes the incorporated areas of Gonzales, Sorrento, and Donaldsonville, LA. Ascension Parish was included in the Amite River and Tributaries reconnaissance report completed in November 1984. Funds in the amount of $25,000 are being used to prepare the project study plan for Ascension Parish currently under negotiation. The study will investigate methods to provide flood control improvements for Ascension Parish, Louisiana. The alternatives include a flood gate on Henderson Bayou and associated levee, channel improvements, and nonstructural alternatives, such as flood proofing, structure raising, and acquisitions. Flood control improvements are needed to reduce flood damages to residential and commercial development, which is consistent with Administration policy. Ascension Parish government has expressed its intent to cost share the feasibility phase of the study and negotiation is currently underway. The Feasibility Cost Sharing Agreement is scheduled to be executed in May 2001.

Fiscal Year 2001 funds are being used to complete the reconnaissance phase and continue into the feasibility phase of the study. The funds requested for Fiscal Year 2002 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $4,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,525,000
Reconnaissance Phase (Federal)	25,000
Feasibility Phase (Federal)	2,250,000
Feasibility Phase (Non-Federal)	2,250,000

The reconnaissance phase is scheduled for completion in May 2001. The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Calcasieu River Basin, LA New Orleans District	2,100,000	100,000	300,000	200,000	1,500,000

The study area is located in southwestern Louisiana and includes Vernon, Rapides, Beauregard, Allen, Calcasieu, Jefferson Davis, and Cameron Parishes. Development in the study area is subject to repetitive flooding particularly in the Lake Charles area in the southern portion of the Calcasieu Basin. Headwater flooding and backwater flooding from the Calcasieu River is a major problem in the Lake Charles area and in the Bayou Choupique area west of Sulphur, Louisiana. Fish and wildlife habitat has been lost to development in the upper basin and to erosion, subsidence, saltwater intrusion, and development in the estuarine areas of the lower basin. The study will address the feasibility of measures to reduce flooding and restore fish and wildlife habitat in the study area. The Louisiana Department of Transportation and Development is the potential sponsor for the study. The anticipated outputs of flood damage prevention and environmental restoration are in accord with Administration policy.

Fiscal Year 2001 funds are being used to continue into the feasibility phase of the study. The funds requested for Fiscal Year 2002 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$4,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Non-Federal)	2,000,000

The reconnaissance phase is scheduled for completion in July 2001. The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Hurricane Protection, LA New Orleans District	4,500,000	0	100,000	100,000	4,300,000

The study encompasses a multi-parish area in southeastern Louisiana. Hurricanes pose a significant threat to highly populated and industrial areas in this part of the state. The study will review the currently authorized hurricane protection projects and determine if modifications are required to provide a higher level of protection. State and local governments have expressed concern that the current hurricane protection measures do not provide protection for category 4 or 5 storms. The current projects provide protection for the equivalent of a fast-moving category 3 storm or less. If a stronger storm impacts the coastal area, extreme damages and loss of life can be anticipated. The State of Louisiana supports the study and would be expected to cost share in the feasibility study. Areas to be studied will include raising the current levee systems, construction of barriers that may prevent storm surge from reaching the protected areas, restoring/maintaining barrier islands, maintaining shorelines and land bridges to prevent storm surges from moving inland, and wetlands construction and restoration that could lower storm surge elevations. The economic damage and loss of life caused by a category 4 or 5 storm would be extreme and justifies proceeding with the study in the budget year. The study and its outputs are in accord with Administrative policy. The reconnaissance phase is scheduled to be completed in July 2002, which is 18 months after initiating the study.

Fiscal Year 2001 funds are being used to fully fund the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2002 will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $8,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$8,500,000
Reconnaissance Phase (Federal)	500,000
Feasibility Phase (Federal)	4,000,000
Feasibility Phase (Non-Federal)	4,000,000

The reconnaissance phase is scheduled for completion in July 2002. The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Plaquemines Parish Urban Flood Control, LA New Orleans District	2,100,000	0	100,000	100,000	1,900,000

Plaquemines Parish is located along both banks of the Mississippi River from New Orleans, Louisiana, to the river's mouth, a distance of about 80 miles. The July 1999 population of the parish was about 25,700. All of the development in the parish is located along the alluvial ridges of the Mississippi River and is protected from river flooding by the Mississippi River Levees feature of the Mississippi River and Tributaries Project. The rapidly growing New Orleans suburb of Belle Chasse and the Alvin Callender Naval Air Station are located in the northern end of the parish contiguous to New Orleans. Other communities include Braithwaite and Pointe a la Hache on the east bank of the river and Buras, Port Sulphur and Venice on the west bank. The Westwego to Harvey Canal Hurricane Protection Project, which is under construction, will provide hurricane protection to the Belle Chasse area and the Alvin Callender Naval Air Station. The New Orleans to Venice Hurricane Protection Project, which is nearing completion, provides hurricane protection to the more developed areas in the southern reaches of the parish. Flooding in developed areas in the parish, particularly the rapidly developing Belle Chasse area, is increasing. Flood control improvements are needed to reduce flood damages to residential development, which is consistent with Administration policy. Plaquemines Parish Government has requested a Federal project to address rainfall flooding problems in the area and has expressed its intent to cost share the feasibility phases of the study.

Fiscal Year 2001 funds are being used to fully fund the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2002 will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost-sharing is as follows:

Total Estimated Study Cost	$4,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Non-Federal)	2,000,000

The reconnaissance phase is scheduled for completion in January 2002. The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
St. Bernard Parish Urban Flood Control, LA New Orleans District	1,710,000	100,000	375,000	300,000	935,000

St. Bernard Parish is located on the east bank of the Mississippi River south of, and contiguous to, the City of New Orleans, Louisiana. The July 1998 Census Bureau estimated population of the parish was approximately 66,100. The area is protected from Mississippi River and hurricane flooding by a levee loop called the Chalmette area loop that is formed by the west bank river levee and the Chalmette area feature of the Lake Pontchartrain, Louisiana, and vicinity hurricane protection project. Most of the parish's population lives within a smaller, internal levee loop adjacent to the Mississippi River formed by the river levee and local levee. Major floods caused by heavy rainfall have occurred in 1978, 1980, 1982, 1983, and 1995. Damages during the 1978 flood were approximately $22,000,000 and St. Bernard Parish was declared a disaster area. Estimated damages for the 1983 flood were $2,500,000 to 400 homes, and for the 1995 flood, $5,700,000 to about 700 homes. Flood control improvements are needed to reduce repetitive damages to residential development, which is consistent with Administration policy. The St. Bernard Parish Government and the Lake Borgne Levee District are the cost-sharing sponsors for the feasibility phase. The feasibility cost sharing agreement was signed on 23 February 2001.

Fiscal Year 2001 funds are being used to continue into the feasibility phase. The funds requested for Fiscal Year 2002 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $3,200,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost-sharing is as follows:

Total Estimated Study Cost	$3,310,000
Reconnaissance Phase (Federal)	110,000
Feasibility Phase (Federal)	1,600,000
Feasibility Phase (Non-Federal)	1,600,000

The reconnaissance phase was completed on 23 February 2001. The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
St. Charles Parish Urban Flood Control, LA New Orleans District	2,200,000	0	100,000	100,000	2,000,000

St. Charles Parish is located on the east and west banks of the Mississippi River west of, but not contiguous to the city of New Orleans, Louisiana. The July 1998 Census Bureau estimated population of the parish was approximately 48,300. The east bank area is protected from flooding from Mississippi River and hurricane flooding by a levee loop formed by the Mississippi River east bank levee and the under-construction St. Charles Parish feature of the Lake Pontchartrain, Louisiana, and Vicinity hurricane protection project. The west bank area is protected by the Mississippi River west bank levee and, to some extent, by local (non-Federal) hurricane protection levees. Major floods caused by heavy rainfall have occurred in 1978, 1980, 1982, 1983, and 1995. For the 1995 flood, damages totaled $66,800,000 to about 2,300 homes. Flood control improvements are needed to reduce repetitive damages to residential development, which is consistent with Administration policy. By letter of October 25, 1999, the St. Charles Parish Council stated its intent to act as the cost sharing sponsor for the feasibility phase.

Fiscal Year 2001 funds are being used to fully fund the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2002 will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $4,200,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,300,000
Reconnaissance Phase (Federal)	100,00
Feasibility Phase (Federal)	2,100,000
Feasibility Phase (Non-Federal)	2,100,000

The reconnaissance phase is scheduled for completion in February 2002. The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
West Shore- Lake Pontchartrain, LA New Orleans District	1,850,000	1,294,000	359,000	197,000	0

The West Shore-Lake Pontchartrain, Louisiana study will address hurricane flooding problems in St. Charles Parish west of the Bonnet Carre' Floodway, St. John the Baptist Parish and St. James Parish. The main population centers in the study are LaPlace and Reserve. Major flooding in the area occurred as a result of Hurricane Betsy (1965) and Juan (1985), and as a result of the 1973 flood on the Mississippi River. Damages totaled $1,000,000 for Hurricane Betsy, $950,000 for the 1973 flood, and $4,000,000 for Hurricane Juan. Population in the study area has been increasing with populations of 25,500 in 1960; 30,300 in 1970; 40,600 in 1980; and 47,700 in 1990. There are approximately 4,000 residential structures in the study area vulnerable to hurricane flooding. Population and potential damages are expected to continue to grow due to the lack of undeveloped land in the New Orleans area. Average annual damages are estimated to be $9,000,000. The plan identified in the June 1997 reconnaissance report would provide for construction of 105 miles of levees and floodwalls extending from the west guide levee of the Bonnet Carre' Spillway to US Hwy 61 in the vicinity of the Reserve-Relief Canal. The estimated construction cost for this plan is $60,000,000, with an average annual cost of $4,500,000 and a benefit-cost ratio of 2.1. The Pontchartrain Levee District entered into an agreement to provide the non-Federal share of the feasibility study cost in March 1998. Support for this project is evidenced by the numerous letters from state and local governments and from Congressmen. This study and its anticipated outputs are in accord with Administration policy.

Fiscal Year 2001 funds are being used to continue the feasibility phase. The funds requested for Fiscal Year 2002 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is $2,700,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,200,000
Reconnaissance Phase (Federal)	500,000
Feasibility Phase (Federal)	1,350,000
Feasibility Phase (Non-Federal)	1,350,000

The reconnaissance phase was completed in March 1998. The feasibility study is scheduled for completion in September 2002.

Total - Flood Damage Prevention Studies	18,355,000	1,933,000	1,984,000	1,547,000	12,891,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $

c. Shoreline Protection Studies: None.

d. Special Studies: The amount of $1,511,000 is requested to continue one and complete one feasibility study in Fiscal Year 2002.

ILLINOIS

Peoria Riverfront Development, IL Rock Island District	1,090,000	479,000	300,000	311,000	0

Peoria, Illinois, is located on the Illinois River in Peoria County. The study area includes the portion of the Illinois River and its tributaries that flows next to, or directly impacts, the downtown Peoria Riverfront Development project. This stretch of river, a riverine lake called Peoria Lake, has lost roughly 70percent of its volume with depths reduced from approximately 8 feet to 2.5 feet since 1903. This loss of depth has seriously impacted fish and wildlife. Contributing to the filling is sediment deposition from creeks draining into the Illinois River. The study is evaluating ecosystem restoration opportunities within the lake and on the tributaries as well as the potential use of suitable dredged material for beneficial uses.

Fiscal Year 2001 funds will be used to continue the feasibility phase. The funds requested for Fiscal Year 2002 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is $1,980,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$2,080,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	990,000
Feasibility Phase (Non-Federal)	990,000

The reconnaissance phase was completed in September 1999. The feasibility study is scheduled for completion in March 2002.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Upper Mississippi River System Flow Frequency Study, IL, IA, KS, MN, MO, NE and WI Rock Island District	8,191,000	5,683,000	736,000	1,200,000	572,000

The study area includes the Upper Mississippi River and its major tributaries. Water-surface profiles adopted in 1966 were employed until an interagency group - the Floodplain Management Task Force (composed of representatives from five states, Federal Emergency Management Agency, U.S. Geological Survey, Soil Conservation Service, and the Corps of Engineers) - adopted revised profiles in 1979. The 1979 profiles were based on updated data and a regional skew instead of the zero skew used in the 1966 profiles. This resulted in profiles about five feet lower in the southern reaches of the Upper Mississippi River when compared to the 1966 profiles. With 15-plus years of additional data and several high-water events over the last 30 years, an update of the profiles is needed. The Galloway Report recommended that the methodology of determining flood-flow frequency on the Upper Mississippi and the Lower Missouri Rivers should be studied. In addition, the original agreement stated that the flood-flow frequencies should be revisited as time and technology progress.

Fiscal Year 2001 funds are being used to continue the feasibility phase of the study. Fiscal Year 2002 funds will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $7,841,000, which is being conducted at full Federal expense.

The initial scope of study was completed in December 1997. The feasibility study completion date is being determined.

Total - Special Studies	9,281,000	6,162,000	1,036,000	1,511,000	572,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
e. Watershed/Ecosystem Studies: The amount of $3,567,000 is requested to continue eight feasibility studies in Fiscal Year 2002.					
ILLINOIS					
Alexander and Pulaski Counties, IL St. Louis District	1,712,000	1,384,000	150,000	130,000	48,000

The study area, approximately 740 square miles, is located in portions of the southernmost Illinois counties of Alexander, Pulaski, Union, Johnson, Massac, and Pope. For reasons of marginal flood control benefits, changing land use, the recognized environmental uniqueness of the area and changing Corps wetlands restoration policy, the investigation has shifted from its original focus on flood control to its present purpose of habitat restoration. Factors contributing to the area's uniqueness include: trees over 1,000 years old; the presence of both a state refuge (9,000 acre Cache River State Natural Area) and a national refuge (35,000 acre Cypress Creek National Wildlife Refuge); exceptionally large trees including two national records and twelve state champions; numerous endangered species; and two national natural landmarks (Lower Cache River Swamp and Heron Pond-Little Black Slough). The study area is one of six areas in the United States where four or more physiographic regions overlap. Of these, the Cache River is considered by many experts to be the most diverse. Serious habitat degradation has occurred along the Cache River at least partly caused by prior Corps projects, including the Cache River Levee and the Cache River Diversion projects. Sedimentation from tributary streams is choking Lower Cache River Swamp, and riverbed entrenchment threatens to drain Heron Pond-Little Black Slough. The U.S. Fish and Wildlife Service, Illinois Department of Natural Resources (IDNR), The Nature Conservancy, and Ducks Unlimited have turned to the Corps of Engineers for environmental engineering solutions to these problems. If environmental engineering solutions are not undertaken, this unique wetland area will be lost within decades. The local sponsor, IDNR, signed the feasibility cost sharing agreement on 2 November 1994. IDNR recently requested additional modifications to the recommended project plan. This added work will delay completion of the feasibility phase. The study is in accord with Administration policy.

Fiscal Year 2001 funds are being used to continue the feasibility phase, and of the funds requested for Fiscal Year 2002 funds will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $2,320,000, which is to be shared on a 50/50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,872,000
Reconnaissance Phase (Federal)	552,000
Feasibility Phase (Federal)	1,160,000
Feasibility Phase (Non-Federal)	1,160,000

The reconnaissance phase was completed in November 1994. The completion date for the feasibility phase is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Illinois River Ecosystem Restoration, IL Rock Island District	2,725,000	277,000	375,000	825,000	1,248,000

The Illinois River and Waterway is a major tributary of the Upper Mississippi River System (UMRS). The UMRS is designated a nationally significant ecosystem by the Fiscal Year 1985 Supplemental Appropriations Act and the Water Resources Development Act of 1986, which mandated that the rivers be managed to balance competing interests in this natural resource. The Illinois River Basin encompasses 30,000 square miles, covering 44 percent of the land area of the State of Illinois. The principal problems impeding the restoration of habitat in the Illinois River Basin are sedimentation of backwaters and side channels, degradation of tributary streams, fluctuations in hydrologic regimes and water levels, and other adverse impacts caused by human activity. Particular emphasis will be placed on identifying restoration activities that are delineated in the State of Illinois' "Integrated Management Plan for the Illinois River Watershed" report. Ongoing efforts include developing site specific projects and conducting a multi-agency restoration needs assessment to identify desired future conditions and restoration needs in the basin. Potential recommendations include activities within the river corridors such as island creation, side channel restoration, protection and creation of wetlands, improved water level management, and floodplain function. In addition, efforts will be focused on potential restoration of the smaller tributaries and watersheds through stream and wetlands restoration, water retention, and riparian buffers. The Feasibility Cost Sharing Agreement with the State of Illinois was signed on 4 August 2000.

Fiscal Year 2001 funds are being used to continue the feasibility phase. The funds requested for Fiscal Year 2002 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $5,250,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,350,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,625,000
Feasibility Phase (Non-Federal)	2,625,000

The reconnaissance phase was completed in August 2000. The completion date for the feasibility study is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Rock River, IL and WI Rock Island District	1,555,000	158,000	525,000	300,000	572,000

The Rock River originates in the lake region of southeastern Wisconsin and flows southward to join the Mississippi River just below Rock Island, Illinois. The watershed includes all or parts of 13 counties in Wisconsin and 15 in Illinois. Major tributaries of the Rock River are Green River, Rock Creek, Elkhorn Creek, Kishwaukee River, Pecatonica River, Sugar River, Turtle Creek, and Yahara River. Potential local sponsors include the states of Wisconsin and Illinois. The study will address flood control and environmental restoration opportunities throughout the drainage basin and will evaluate the overall degradation of the Rock River ecosystem. Environmental restoration activities could include limited stream restoration, wetland creation, wildlife habitat restoration, land surface restoration, recommendations for maintaining viable populations of native species, and other engineering solutions to environmental problems in the watershed. A holistic review of ecosystem management practices will be conducted in partnership with state and Federal agencies to restore fish and wildlife habitat and in the development of a system-wide management plan. Particular emphasis will be placed on restoration of wetlands, neotropical migrants, and Federal and state significant species.

Fiscal Year 2001 funds are being used to complete the reconnaissance phase at full Federal expense, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase. The funds requested for Fiscal Year 2002 will be used to continue the feasibility study phase. The preliminary estimated cost of the feasibility phase is $2,910,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost-sharing is as follows:

Total Estimated Study Cost	$3,010,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,455,000
Feasibility Phase (Non-Federal)	1,455,000

The reconnaissance phase is scheduled for completion in June 2001. The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
LOUISIANA					
Amite River and Tributaries Ecosystem Restoration, LA New Orleans District	2,100,000	100,000	200,000	300,000	1,500,000

The study area includes the 2,000-square-mile Amite River drainage basin in southeastern Louisiana and southwestern Mississippi. Approximately 30 miles of the Amite River corridor have directly experienced degradation of fish and wildlife habitat with potentially many more miles indirectly negatively impacted. Bottomland habitats continue to decrease in area and diversity as vegetation is removed. Approximately 10,690 acres have been directly disturbed in the study area and the potential exists for a total degradation to 24,000 acres. The degradation includes a reduction in wildlife habitat, stream and floodplain environment, and aggravation of existing flooding problems. Problems can be attributed to wider floodplain and shallower water depths, reduction in river length and the resulting steepened river gradient, reduction of the sinuosity through meander cut-offs, increased turbidity, increased temperature, and an increase in the unvegetated areas and man-made changes within the river corridor. River length from 1940 to 1981 has been reduced as much as 10 percent. Preliminary analyses indicated that a 20 percent reduction in river length would produce a stage increase of 6 to 9 inches inducing structural flooding. The steeper gradient of the river increases scour forces, and bridge collapses have been attributed to this force. Removal of riparian vegetation and mining of point bars reduce the resistance of riverbanks to erosion during floods. The elimination of streambank vegetation and mining operations produces a turbid stream negatively impacting many fish species. The Amite River has three to four times the number of exceedances of turbidity than comparable streams in the vicinity. As the habitat deteriorates, wildlife that uses the river and floodplain ecosystem decreases in quantity and diversity. The Amite River, which once flooded a densely vegetated valley bottom, now spreads across bare sand areas and tailings piles at mining sites allowing a multitude of geomorphic changes during flood events. The study will determine the feasibility of restoring the Amite River ecosystem to a condition similar to its natural state. This effort will consider the physical and limnological aspects of the site, and its broader landscape or watershed setting, to address all related issues and constraints. Alternatives will be developed to reduce turbidity, lower temperature, and reduce the extent of the physical changes within the river corridor in an effort to achieve fish and wildlife restoration, and restore outdoor recreation opportunities. This effort will significantly contribute to the watershed management objectives of the State of Louisiana. The heel splitter clam, an endangered species, exists in the basin and is threatened by the degraded stream conditions. The potential local sponsor for this study is the Louisiana Department of Environmental Quality.

Fiscal Year 2001 funds are being used to continue into the feasibility phase. The funds requested for Fiscal Year 2002 funds will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$4,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Non-Federal)	2,000,000

The reconnaissance phase is scheduled for completion in May 2001. The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Louisiana Coastal Area -- Ecosystem Restoration, LA New Orleans District	17,500,000	1,424,000	1,750,000	1,072,000	13,254,000

The study area encompasses a complex coastal wetlands and barrier island ecosystem located in south Louisiana, from the Sabine River to the Pearl River. This area includes an infrastructure that supports coastal communities, commercial and industrial developments, a robust seafood industry, international inland and sea ports, and oil and gas production and processing facilities. There are numerous Federal projects in the area, which include those for flood protection, navigation, river control, and control of salinity and water levels. Developments in the study area, along with other factors such as sea level rise, have contributed to the accelerated deterioration of coastal Louisiana's wetlands. The Louisiana coastal wetlands represent about 40 percent of the Nation's total and are experiencing about 80 percent of the entire Nation's wetlands losses. Prior to these developments and the construction and operation of Federal projects, the south Louisiana coastal ecosystem was largely self-sustainable. However, if no action is taken to protect and restore this ecosystem, the Louisiana coastal wetlands are in jeopardy of permanent and irreversible loss. In a coastwide grassroots effort termed the Coast 2050 initiative, Federal and state resource agencies, local governments, special interest groups, and the public developed the Coast 2050 Plan. This plan, completed in December 1998, documents the perceived coastal problems and describes potential strategies for sustainable coastwide ecosystem restoration. The State of Louisiana provided a letter of intent dated 22 March 1999 to cost-share as the non-Federal sponsor of the feasibility study. The Coast 2050 Plan supports the Louisiana Coastal Area—Ecosystem Restoration, Louisiana reconnaissance report approved May 1999. The primary purpose of the study is environmental restoration which is in accord with Administration policy. Nine basin feasibility studies are planned for execution under the Louisiana Coastal Area authority. The Feasibility Cost Sharing Agreement was executed in February 2000.

Fiscal Year 2001 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2002 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $35,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$35,000,000
Reconnaissance Phase (Federal)	N/A
Feasibility Phase (Federal)	17,500,000
Feasibility Phase (Non-Federal)	17,500,000

The reconnaissance phase was completed in February 2000. The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
MINNESOTA					
Upper Mississippi River, Watershed Management, Lake Itasca to Lock and Dam 2, MN St. Paul District	3,105,000	150,000	187,000	200,000	2,568,000

Conditions in the Upper Mississippi River basin have changed since the original headwaters reservoirs were constructed in the early 1900's. From its source at Lake Itasca in northern Minnesota, to Lock and Dam 2 at Hastings, Minnesota, the Upper Mississippi River is suffering from impacts of almost 100 years of continual changes. This area is faced with increased flood damage reduction needs, reservoir operational plans that are inconsistent with today's problems, land and water development pressures, more definitive Tribal rights, dwindling natural resources, decline of fish and wildlife populations, increased demands for water supplies, and water quality impacts. There is a growing recognition that addressing the needs in this part of the Mississippi River is important to the region, as is maintaining the viability of the lower Mississippi River. Resource managers at all levels of government recognize the need for a cooperative partnership and development of a coordinated and comprehensive land and watershed development and management strategy that addresses all of these needs. High reservoir levels in late fall 1999 have exacerbated the problems in the headwater reservoir area but have also created immediate opportunities to focus on the flood damage reduction needs and associated water and related land issues. Likewise, documented experiences from the drought of 1987-1988 defined the water supply and water quality needs and associated water and related land issues. The study will address solutions to the problems in a holistic manner. Potential study sponsors include the Minnesota Pollution Control Agency, the Mississippi Headwaters Board, the Metropolitan Council, and the Minnesota Department of Natural Resources.

Fiscal Year 2001 funds are being used to complete the reconnaissance phase at full Federal expense and continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $5,890,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,050,000
Reconnaissance Phase (Federal)	160,000
Feasibility Phase (Federal)	2,945,000
Feasibility Phase (Non-Federal)	2,945,000

The reconnaissance phase is scheduled for completion in May 2001. The feasibility study completion date is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Red River of the North Basin, MN, ND, SD and Manitoba, Canada St. Paul District	8,210,000	0	200,000	500,000	7,510,000

The Red River of the North, a northward flowing stream, originates at the convergence of the Ottertail River, Minnesota and Bois de Sioux River, Minnesota and North Dakota and ends at Lake Winnipeg in Manitoba, Canada. Within the United States, the Red River drains portions of South Dakota, Minnesota and North Dakota and forms the border between the latter two. The basin has lost much of the natural environment that existed in early settlement times, and flooding has repeatedly caused economic and human hardship. Major flood events totaling billions of dollars in damages have occurred in 1826, 1852, 1893, 1897, 1914, 1919, 1950, 1974, 1975, 1978, 1979, 1985, 1989, 1996, and 1997. Significant floods with substantial documented damages occurred on tributaries in other years as well. Severity of flooding is on the rise. Drainage, river modifications (many by the Corps), and land use changes for enhancement of agriculture adversely affected the natural ecosystems. Parts of the basin are in a state of accelerating deterioration. The study is urgently needed to identify projects, verify Federal interests, and establish feasibility in proceeding with flood damage reduction and ecosystem restoration projects using a variety of alternatives, including wetland and stream restorations, to address flooding, drought, erosion and sediment discharge, water quality, and creation of wildlife habitat and connectivity. The goal is to achieve a sustainable, healthy balance between development for communities and agriculture and preservation or enhancement of natural resources through a holistic watershed approach. Solutions will require modifications to most Corps channel projects, which are now contributing to ecosystem deterioration. The study will build on initiatives of the International Joint Commission Red River Basin Task Force study, the Red River Mediation Agreement, the International Flood Mitigation Initiative (IFMI) Report, and others in cooperation with the existing and broad-based network of participants. Federal agencies, State agencies in Minnesota, North Dakota, and South Dakota, local units of government, non-profit environmental organizations, Canadian interests, business and agricultural representatives, and citizens participating and supporting these initiatives see this study as critical to continued basin planning and implementation. The Red River Basin Board passed a resolution supporting this study; the IFMI also showed strong interest; Audubon, Minnesota Center for Environmental Advocacy, and other environmental organizations actively backed this study. Willing cost-share sponsors include the States of North Dakota and Minnesota, watershed entities such as the Red River Watershed Management Board, and local units of government such as the city of Fargo which is at risk during larger flood events. The reconnaissance study will be completed within one year. Feasibility studies will follow for projects that have Federal interest.

Fiscal Year 2001 funds are being used to complete the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2002 will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $16,020,000 which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$16,220,000
Reconnaissance Phase (Federal)	200,000
Feasibility Phase (Federal)	8,010,000
Feasibility Phase (Non-Federal)	8,010,000

The reconnaissance phase is scheduled for completion in December 2001. The feasibility study completion schedule is being determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
WISCONSIN					
Baraboo River, WI St. Paul District	2,650,000	0	100,000	240,000	2,310,000

The Baraboo River Basin is located in Monroe, Vernon, Juneau, Sauk, and Columbia Counties of Wisconsin. The Baraboo River is a tributary of the Wisconsin River, which flows into the Mississippi River near Prairie du Chien, Wisconsin. As early as the 1840's, dams were constructed to supply waterpower for operation of mills and later for electricity. In all, four dams were built on the Baraboo River. Three were in a 5-mile stretch called the Baraboo Rapids in Columbia County and the fourth was at La Valle in Sauk County. Two dams have been removed and the other two dams are in a deteriorated condition and no longer serve the economy of the region. Besides being a safety hazard, these dams have a negative impact on the environment and ecology of the river by blocking natural migration routes of fish and aquatic fauna, preventing them from reaching important spawning, rearing, and feeding habitats. Impoundments behind the dams in the Baraboo Rapids serve as sediment traps, which suffocate high quality aquatic habitat under layers of fine-grained sediments. Compounding the situation is an accelerating degradation of ecosystems within the watershed, due to land use changes and development, which has affected wetlands, water quality, and riparian areas. The proposed study will establish a Federal interest in proceeding with ecosystem restoration projects such as dam removals; channel restoration; restoration of aquatic and riparian habitats; erosion and sediment control; and wetland restorations for reducing flood damage and improving water quality, fisheries, populations of endangered and threatened species, and natural river equilibrium. It is expected that a combination of structural and nonstructural solutions will be necessary to achieve the objectives for the long term. Fully addressing the deteriorated state of the river system will require a holistic assessment of the watershed, implementation of numerous ecosystem restoration projects beyond dam removal, and preparation of a management plan for the long-term vitality of the river system. The study will take full advantage of historical data on the environment, water quality, aquatic habitat, and hydrologic data and models. The Wisconsin Department of Natural Resources has expressed a strong interest in being the local sponsor. Other supporters and potential partners are Sauk County, the Sand County Foundation, local watershed boards, and the City of Baraboo and other communities in the watershed. The Wisconsin Department of Natural Resources looks for this study to serve as a model for other watersheds in the Wisconsin River Basin.

Fiscal Year 2001 funds are being used to fully fund the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2002 will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $5,100,000 which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,200,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,550,000
Feasibility Phase (Non-Federal)	2,550,000

The reconnaissance phase is scheduled for completion in December 2001. The feasibility study completion date is being determined.

Total - Watershed/Ecosystem Studies	39,557,000	3,493,000	3,487,000	3,567,000	29,010,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
f. Comprehensive Studies: The amount of $581,000 is requested to continue one feasibility study in Fiscal Year 2002.					
ARKANSAS					
White River Basin Comprehensive, AR and MO Memphis District	2,000,000	0	375,000	581,000	1,044,000

The White River Basin comprises approximately 27,765 square miles of which 10,622 square miles are in the southern part of Missouri and the remaining 17,143 square miles are in the northern and eastern portion of Arkansas. The basin contains five large Corps multi-purpose lakes: Beaver, Table Rock, Bull Shoals, Norfork, and Greers Ferry. Clearwater Lake, primarily for flood control, is also in the upper basin. This comprehensive basin study will investigate water resource related problems such as navigation, restoration and protection of environmental resources, water quality, hydropower, flood damage reduction, and water supply. Local interests, local industries, and beneficiaries in adjacent areas desire navigation improvements. The area is deemed significant as a migratory waterfowl wintering area and includes several Federal and state wildlife refuges. Releases from Corps lakes sometime fail to meet state water quality standards for dissolved oxygen and adversely affect the ecosystem below the dam. Land use practices result in nutrient runoff (both point and non-point sources), sediment, and other water quality factors that affect water supply reserves, hydropower capability (by placing restrictions on releases), recreational opportunities, and fish and wildlife habitat in the entire basin. Federal, state, and private natural resource agencies and organizations are highly supportive of conducting a comprehensive study. The potential sponsor would likely be an agency of the State of Arkansas and the state of Missouri.

Fiscal Year 2001 funds are being used to develop a scope of studies and a project management plan, execute a study cost-sharing agreement, and initiate basin-wide studies. Fiscal Year 2002 funds would be used to continue basin-wide studies. The preliminary estimated cost of the study is $4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,000,000
Federal Cost	2,000,000
Non-Federal Cost	2,000,000

The study is authorized by Section 729 of the Water Resources Development Act of 1986, as amended by Section 202 of the Water Resources Development Act of 2000. The study completion date is being determined.

Total - Comprehensive Studies	2,000,000	0	375,000	581,000	1,044,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
g. Project Review Studies: The amount of $3,724,000 is requested to continue one feasibility study in Fiscal Year 2002.					
ILLINOIS					
Upper Mississippi and Illinois Navigation Study, IL, IA, MN, MO, & WI Rock Island District	62,767,000 [1/]	57,464,000	1,579,000	3,724,000	0 [1/]

The Upper Mississippi and Illinois Navigation Study is addressing the need for navigation improvements on the Upper Mississippi River and the Illinois Waterway. The area includes 854 miles of the Upper Mississippi River, with 29 locks and dams between Minneapolis-St. Paul, Minnesota, and the mouth of the Ohio River, and 348 miles of the Illinois Waterway, with eight locks and dams which connects the city of Chicago, Illinois, and the Great Lakes with the Mississippi River just upstream from the Melvin Price Locks and Dams. The system is experiencing delays to commercial traffic at locks upstream from Melvin Price Locks and Dams due to limited lockage capacity and increasing traffic. Reconnaissance studies indicated that navigation improvements at certain locks on the Mississippi River and Illinois Waterway might be economically justified. The feasibility report will include a recommendation regarding needs for navigation improvements on the Upper Mississippi and Illinois Waterway system for the 50-year planning horizon. In recognition of the national significance of the environmental value of both waterways, the environmental impact statement will encompass system-wide and limited cumulative impacts. The feasibility study report will recommend the implementation of system investments, including the identification of the costs of required mitigation of environmental impacts.

Fiscal Year 2001 funds are being used to continue the feasibility phase of the study. Fiscal Year 2002 funds will be used to continue the feasibility phase of the study.

The reconnaissance phase was completed in March 1993. The feasibility study completion date is being determined.

Total - Project Review Studies:	62,767,000	57,464,000	1,579,000	3,724,000	0
TOTAL SURVEYS	140,655,000	71,392,000	9,435,000	12,055,000	47,773,000

[1/] A revised project study plan is being prepared to address issues identified during recent independent reviews, including National Research Council's conclusions that the models, data, and assumptions need improvement.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $

3. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) – NEW: None.

4. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) – CONTINUING

a. Watershed/Ecosystem: The amount of $ 515,000 is requested to initiate one and continue one PED activity in Fiscal Year 2002.

ILLINOIS

Peoria Riverfront Development, IL Rock Island District	1,665,000	0	0	415,000	1,250,000

Peoria, Illinois, is located on the Illinois River in Peoria County. The study area includes the portion of the Illinois River and its tributaries that flows next to, or directly impacts, the downtown Peoria Riverfront Development project. This stretch of river, a riverine lake called Peoria Lake, has lost roughly 70% of its volume with depths reduced from approximately 8 feet to 2.5 feet since 1903. This loss of depth has seriously impacted fish and wildlife. Contributing to the filling is sediment deposition from creeks draining into the Illinois River. A system feasibility report addressing possible lake and tributary restoration alternatives is scheduled for completion in March 2002. PED will ultimately be cost shared 65/35 with the State of Illinois, Department of Natural Resources, and/or other willing sponsors, but will be financed through the PED period at 75/25. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Fiscal Year 2002 funds will be used initiate the PED. The completion date for the PED phase is being determined.

A summary of the study cost sharing is as follows:

Total Estimated Preconstruction Engineering and Design Costs	$2,220,000	Total Estimated Preconstruction Engineering and Design Costs	$2,220,000
Initial Federal Share	1,665,000	Ultimate Federal Share	1,443,000
Initial Non-Federal Share	555,000	Ultimate Non-Federal Share	777,000

The project is not authorized for construction. Fiscal Year 2001 funds are being used to continue work on the feasibility study.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
MINNESOTA					
Lower St. Anthony Falls Rapids Restoration, Minnesota St. Paul District	1,000,000	0	300,000 [1]	100,000	600,000

St. Anthony Falls restoration would include development of a formal whitewater rapids channel and trail/park on the east bank of the Mississippi River, adjacent to the U.S. Army Corps of Engineers Lower St. Anthony Falls Lock and Dam, within the City of Minneapolis, Hennepin County. The facility would utilize the vertical drop created by the dam and include a new river channel approximately 2,000 feet long and 40 feet wide, with a vertical drop of 25 feet. The channel would flow parallel to the Mississippi River main stem in a park setting. The facility would include a recreational whitewater course for kayaking, canoeing and rafting as well as improved public access to the river and formal shore fishing opportunities. The project is estimated to cost $15,400,000 with an estimated Federal cost of $10,000,000 and an estimated non-Federal cost of $5,400,000. The project is described in the report entitled "Feasibility Study for Mississippi Whitewater Park, Minneapolis, Minnesota," prepared for the State of Minnesota Department of Natural Resources, dated June 30, 1999. Initial preconstruction engineering and design activities will include validation of the State report with economic and environmental analyses.

Total Estimated Preconstruction Engineering and Design Costs	$1,333,000	Total Estimated Preconstruction Engineering and Design Costs	$1,333,000
Initial Federal Share	1,000,000	Ultimate Federal Share	866,000
Initial Non-Federal Share	333,000	Ultimate Non-Federal Share	467,000

The project is authorized for construction by Section 527 of the Water Resources Development Act of 2000. The authorizing legislation stipulated that the Non-Federal share of the cost of the project would be 35 percent. Fiscal Year 2001 funds are being used to execute a design agreement and initiate preparation of an Engineering Documentation Report. Fiscal Year 2002 funds will be used to continue the engineering Documentation Report. The completion schedule for preconstruction engineering and design is being determined.

Total Watershed/Ecosystem	2,665,000	0	300,000	515,000	1,850,000

[1] An additional $598,000 was appropriated in the Consolidated Appropriations Act, 2001, for a cost-shared feasibility study. Legislation will be required prior to using this $598,000 for PED.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
b. Navigation: The amount of $ $584,000 is requested to initiate one and continue one PED activity in Fiscal Year 2002.					
LOUISIANA					
Bayou Sorrel Lock, LA New Orleans District	1,500,000	0	0	300,000	1,200,000

Bayou Sorrel Lock is a feature of the Atchafalaya Basin project, which is a feature of the Flood Control, Mississippi River and Tributaries project. The project flood flow line for the Atchafalaya Basin was modified in 1986 to the current elevation of 28.7. The lock must be modified or replaced. The need to modify Bayou Sorrel Lock presents an opportunity to address increasing navigation concerns at this lock. Planning, engineering, and design of the modification or replacement for flood reduction benefits were delayed until the optimum navigation plan could be studied. The tentative plan is the replacement of the existing lock with a new 110 by 1,200 feet concrete chamber lock immediately adjacent to the existing lock. Preconstruction engineering and design cost would be all Federal.

Total Estimated Preconstruction Engineering and Design Costs	$1,500,000	Total Estimated Preconstruction Engineering and Design Costs	$1,500,000
Initial Federal Share	1,500,000	Ultimate Federal Share	1,500,000
Initial Non-Federal Share	0	Ultimate Non-Federal Share	0

The project is not authorized for construction. Fiscal Year 2001 funds are being used to complete the feasibility phase in September 2001. Fiscal Year 2002 funds will be used to initiate PED. The completion date for the PED phase is being determined.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
MISSOURI					
St. Louis Harbor, MO & IL St. Louis District	4,590,000	3,211,000	199,000	284,000	896,000

The Port of Metropolitan St. Louis has grown to be one of the Nation's leading inland ports; however, the port has a shortage of riverfront sites suitable for waterway dependent industrial use. In view of projected long-term growth in waterborne commerce moving through the St. Louis market, additional harbor facilities are needed. The authorized project has a St. Louis Municipal Dock sediment control structure and a 6,900-foot harbor along the Chain of Rocks Canal in Illinois. The Chief of Engineer's Report dated April 30, 1984 reflected a total cost of $31,000,000, with an estimated first Federal cost of $10,400,000 and an estimated first non-Federal cost of $20,600,000. The current project cost, without an allowance for inflation through the construction period, is $46,148,000 ($15,524,000 Federal and $30,624,000 non-Federal) at October 1999 price levels. A general reevaluation study is currently underway to determine if the project is incrementally feasible. The plan includes a limited reevaluation as directed by Section 415 of the Water Resources Development Act of 1996. The limited reevaluation will determine the feasibility of reducing interior flooding at the Illinois site. The current project formulation eliminates the sediment control structure at the St. Louis Municipal Dock and indicates a reduced harbor length along the Chain of Rocks Canal. The reevaluation will determine the economic feasibility of a harbor with dimensions between 2,000 feet and 3,500 feet long at an estimated cost of $20,000,000. Updated project cost and economic data will be included in the General Reevaluation Report. The Tri-City Regional Port District is the local sponsor for the project and has expressed support for the project. The sponsor understands the financing and cost-sharing requirements and is ready to sign a design agreement. PED will ultimately be cost shared at the rate for the project to be constructed but PED costs required after completion of the reevaluation will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,600,000 [1]		Total Estimated Preconstruction Engineering and Design Costs	$1,600,000 [1]
Initial Federal Share	1,200,000		Ultimate Federal Share	1,280,000
Initial Non-Federal Share	400,000		Ultimate Non-Federal Share	320,000

[1] Excludes PED expenditures prior to Fiscal Year 1996 and the cost of reevaluation report being completed with PED funds.

The project was authorized for construction by the Water Resources Development Act of 1986. The cost sharing for construction will be 80 percent Federal and 20 percent non-Federal in accordance with the Water Resources Development Act of 1986. Fiscal Year 2001 funds are being used to complete the General Reevaluation Report, including engineering, economic, and environmental analyses, and continue PED. Fiscal Year 2002 funds will be used to continue PED. The PED completion date is being determined.

Total - Navigation	6,090,000	3,211,000	199,000	584,000	2,096,000

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $

c. Beach Erosion Control: None.

d. Flood Control: The amount of $ 2,846,000 is requested to initiate two, continue six, and complete one PED activity in Fiscal Year 2002.

ILLINOIS

Wood River Levee, IL St. Louis District	1,200,000	173,000	232,000	341,000	454,000

The project area is located in the Mississippi River flood plain of Madison County, Illinois, just upstream of the City of St. Louis. The area is protected by an urban design levee, authorized in 1938 and constructed in the 1950's. Based on the Reconnaissance Report dated April 1999, preconstruction engineering and design is being resumed to initiate a cost-shared reconstruction evaluation to address the aging infrastructure and determine its applicability as a Federal interest. The recommended project, estimated to cost $25,000,000 with an estimated Federal cost of $18,750,000 and an estimated non-Federal cost of $6,250,000 includes rehabilitation of the levee system to bring it into original performance compliance. The reevaluation will investigate the reconstruction or replacement of 7 pump stations, 37 gravity drains, 147 relief wells, and over 21 miles of levee. In response to a system failure during the flood of 1993, only swift action by Wood River Drainage and Levee District prevented major damages. On 6 April 2000 a Preconstruction Engineering and Design Agreement (PED) was executed with the Wood River Drainage and Levee District. PED will ultimately be cost-shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,600,000	Total Estimated Preconstruction Engineering and Design Costs	$1,600,000
Initial Federal Share	1,200,000	Ultimate Federal Share	1,200,000
Initial Non-Federal Share	400,000	Ultimate Non-Federal Share	400,000

The project is authorized for construction by the Flood Control Act of 1938. Cost sharing will be 75 percent Federal and 25 percent non-Federal in accordance with Section 103 of the Water Resources Development Act of 1986. Fiscal Year 2001 funds are being utilized to continue the reconstruction evaluation. Fiscal Year 2002 funds will be used to continue the reconstruction evaluation. The completion date for PED is being determined.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
LOUISIANA					
Jefferson Parish, LA New Orleans District	1,500,000	0	68,000	50,000	1,382,000

Jefferson Parish is located along the Mississippi River in southeast Louisiana. The parish is part of the major urban center in the New Orleans Metropolitan Statistical Area. Jefferson Parish has a population of 448,300 (1990). The study area is relatively flat and divided into three hydraulically independent areas. Most of the developed areas are protected by levee systems from river and hurricane flooding and drained by pumps which discharge primarily into estuarine water bodies such as Lake Pontchartrain and Barataria Bay. The leveed areas are divided by natural and man-made barriers into many sub-basins which are webbed with drainage canals which terminate at pumping stations. Heavy rainfall has produced major floods in Jefferson Parish in six of the last 12 years. Between 1977 and 1986, 22,000 claims amounting to $122,000,000 were filed with the Federal Emergency Management Agency. In April 1980, May 1980, April 1983, November 1989, and May 1995, Jefferson Parish was declared a Federal disaster area due to extensive rainfall flooding. Local interests have made substantial improvements to the flood control systems but have not kept pace with the increasing severity of the problem. The feasibility study is addressing potential solutions to flood damages. Possible alternative solutions to the flooding problems include: canal improvements, removal of canal obstructions, and increased pumping capacities. The disastrous flood event in May 1995 prompted a Congressional Directive to expedite construction of the economically justified components identified in the reconnaissance report. Subsequent to the authorization of the Southeast Louisiana project, the Jefferson Parish study scope was reevaluated, resulting in a revised cost estimate and a revised completion date. The average annual benefits and the benefit-cost ratio are yet to be determined. The local sponsor, Jefferson Parish, is fully committed to cost sharing in the project. PED will ultimately be cost shared at the rate for the project to be constructed, but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$2,000,000	Total Estimated Preconstruction Engineering and Design Costs	$2,000,000
Initial Federal Share	1,500,000	Ultimate Federal Share	1,300,000
Initial Non-Federal Share	500,000	Ultimate Non-Federal Share	700,000

The project is not authorized for construction. Cost sharing will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. Fiscal Year 2001 funds are being used to initiate the PED phase. Fiscal Year 2002 funds will be used to continue PED. The completion date of the PED phase is being determined.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Lafayette Parish, LA New Orleans District	750,000	0	0	400,000	350,000

Lafayette Parish is located along the Vermilion River in southwest Louisiana. The study area encompasses the flood prone areas of Lafayette Parish in the Vermilion River Basin as well as areas of St. Martin Parish near the Bayou Tortue Swamp. The majority of structures susceptible to flood damages are located along the Vermilion River corridor within and adjacent to the city limits of Lafayette. The Vermilion River is the major drainage artery for the study area and has an estimated drainage area of 561 square miles. Significant floods have occurred in Lafayette Parish in 1922, 1927, 1940, 1946, 1953, 1955, 1959, 1961, 1964, 1966, 1969, 1971, 1980, 1985, 1991, 1993, and 1995. Since 1978 approximately 1,000 claims were reported for the communities in Lafayette Parish at a cost exceeding $5,000,000. Additionally, over 160 repetitive loss claims have been reported to the National Flood Insurance Program since 1978. A feasibility report is being conducted to reduce flood damages in Lafayette Parish. The anticipated solution is expected to consist of dredging the Vermilion River, retention facilities, and non-structural alternatives. The average annual benefits and the benefit-cost ratio are yet to be determined. The total project cost is expected to be approximately $80,000,000. The Lafayette Parish government has indicated a willingness to support such efforts and take on the responsibilities required of a non-Federal cost-sharing sponsor. PED will ultimately be cost-shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost-sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,000,000	Total Estimated Preconstruction Engineering and Design Costs	$1,000,000
Initial Federal Share	750,000	Ultimate Federal Share	650,000
Initial Non-Federal Share	250,000	Ultimate Non-Federal Share	350,000

The project is not authorized for construction. Cost sharing will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. Non-Federal funds are being used to complete Fiscal Year 2001 feasibility efforts. The funds requested in Fiscal Year 2002 will be used to initiate the PED phase. The completion date for PED is being determined.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Orleans Parish, LA New Orleans District	750,000	0	0	50,000	700,000

Orleans Parish is located along the Mississippi River in southeast Louisiana. The parish is part of the major urban center in the New Orleans Metropolitan Statistical Area. Orleans Parish has a population of 497,000 (1990). The Mississippi River bisects the area creating an east bank and west bank basin. Most of the developed areas are protected by levees from river and hurricane flooding and drained by pumps, which discharge primarily into estuarine water bodies such as Lakes Pontchartrain and Borgne. The leveed areas are divided into many sub-basins by natural and man-made barriers. In April 1980, May 1980, April 1983, November 1989, and May 1995, Orleans Parish was declared a Federal disaster area due to excessive rainfall flooding. The disastrous flood event in May 1995 prompted a Congressional Directive for the Corps to expedite construction of the economically justified projects identified in the reconnaissance report for the Southeast Louisiana area. The feasibility study scope of work was revised based on the Southeast Louisiana project to address areas that continue to experience damage due to flooding. The alternatives designed for both the east bank and west bank of Orleans Parish consist of a system of culverts, canals, and pump stations. The recommended project is estimated to cost $95,000,000 ($61,800,000 Federal and $33,200,000 non-Federal). The average annual benefits and the benefit-cost ratio are yet to be determined. The local sponsor, the New Orleans Sewerage and Water Board, is fully committed to cost-share the project. PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,000,000	Total Estimated Preconstruction Engineering and Design Costs	$1,000,000
Initial Federal Share	750,000	Ultimate Federal Share	650,000
Initial Non-Federal Share	250,000	Ultimate Non-Federal Share	350,000

The project is not authorized for construction. Cost sharing will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. Non-Federal funds are being used to complete Fiscal Year 2001 feasibility efforts. The funds requested in Fiscal Year 2002 will be used to initiate PED. The completion date of the PED phase is being determined.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
MISSOURI					
Chesterfield, MO St. Louis District	1,875,000	0	134,000	605,000	1,136,000

The Missouri River drains an area of about 525,000 square miles and empties into the Mississippi River approximately 15 miles upstream of St. Louis, Missouri. The Monarch-Chesterfield Levee is located along the right bank of the Missouri River between river miles 46.0 and 38.5. The length of the existing 100-year private levee system is 11.5 miles and protects approximately 4,240 acres. During the Great Flood of 1993, the existing levee failed causing flood damages and other costs such as flood fighting cost, moving expenses, lost wages, lease value differentials, and lost business profits in excess of $200,000,000. The project is estimated to cost $58,090,000 with an estimated Federal cost of $37,759,000 and an estimated non-Federal cost of $20,331,000 at October 2000 price levels. The project includes constructing 11.5 miles of approximately 1.5 to 7.0 feet of levee raise along the Missouri River and Bonhomme Creek with attendant seepage control structures, including 9 relief wells, a sheet pile cutoff, and seepage berms 150 to 300 feet wide and 4 to 15 feet thick. The plan also includes constructing a railroad closure and gate well structure, a road raise at Centaur Road, a Howell Island borrow site access road, an Eatherton Road Realignment, and Eatherton Road-Olive Road ramp crossing, an alternate alignment upstream and downstream of Daniel Boone Bridge, a Chesterfield Airport road closure structure with retaining walls, a Long Road roadway and railroad closure structures with retaining walls, ramping of various farm roads crossing the levee, four pumping stations with gravity drains, and various utility relocations. The plan also includes constructing 6.82 acres of forested wetlands, 3.73 acres of open water, and 2.39 acres of emergent wetlands for environmental mitigation. The local sponsor has submitted and received approval from Assistant Secretary of the Army (Civil Works), three credit applications for work: 1) construction of three pump stations within the protected area, 2) levee improvement from Centaur Road to Interstate 64/U.S. 40, and 3) realignment of levee near Boone's Crossing interchange and levee improvement along the left bank of Bonhomme Creek. The average annual benefits amount to $4.4 million, all for flood damage reduction. The benefit-cost ratio is 1.97 to 1 based upon the latest economic analysis dated October 2000. The Monarch-Chesterfield Levee District is the local sponsor for the project. A design agreement, including a detailed PED cost estimate and schedule, is in preparation with PED scheduled to start in May 2001. PED will ultimately be cost-shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$2,500,000	Total Estimated Preconstruction Engineering and Design Costs	$2,500,000
Initial Federal Share	1,875,000	Ultimate Federal Share	1,625,000
Initial Non-Federal Share	625,000	Ultimate Non-Federal Share	875,000

The Water Resources Development Act of 2000 authorized the project for construction. Cost sharing will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. Fiscal Year 2001 funds are being utilized to complete the feasibility phase of the study and initiate PED. The funds requested for Fiscal Year 2002 will be used to continue PED. The completion date for PED is being determined.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
River des Peres, MO St. Louis District	3,867,000	1,008,000	247,000	242,000	2,370,000

River des Peres drains a 111-square mile area in the city of St. Louis and St. Louis County, Missouri, and empties into the Mississippi River. The floodplain encompasses about 7,500 acres of mostly urban development. The authorized project consists of two subprojects--Deer Creek and University City. The maximum flood of record occurred in 1957; property damages would have totaled $12,300,000 in October 1989 dollars and development conditions. The estimated project cost at October 1992 price levels totaled $23,500,000 with an estimated Federal cost of $17,400,000 and an estimated non-Federal cost of $6,100,000. Current financial and economic data are unavailable for each of the subprojects. The Deer Creek portion of the project consists of 2.5 miles of channel widening and stabilization improvements through the cities of Rock Hill, Webster Groves, Brentwood, and Maplewood. The majority of structures affected by Deer Creek flooding are commercial, including manufacturing, two industrial parks, warehousing and distribution structures, and retail shops. Residential structures are also flooded. A 100-year flood would affect 162 units in the Deer Creek portion of the project area. The project was deferred in the preconstruction engineering and design (PED) phase when the original sponsor, the Metropolitan St. Louis Sewer District, was unable to continue as the sponsor. The Metropolitan St. Louis Sewer District and the mayors of Brentwood, Rock Hill, Webster Groves, and Maplewood signed a letter of intent in February 1999 to serve as the local sponsors for the Deer Creek portion of the project. The University City portion of the project consists of channel enlargement and stabilization along about 2.5 miles of the University City branch of upper River des Peres, a recreation trail of 2.53 miles within the improved channel right-of-way, and a small recreation park to be constructed by non-Federal interests on non-project lands. The Metropolitan St. Louis Sewer District and the city of University City signed a letter of intent in February 2001. PED will ultimately be cost shared at the rate for these projects to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustment that may be necessary to bring the non-Federal contributions in line with the project cost sharing will be accomplished in the first year of construction. The sponsors of both subprojects understand the financing and cost sharing policy for PED and are willing to cost share the PED phase.

Total Estimated Preconstruction Engineering and Design Costs	$5,156,000	Total Estimated Preconstruction Engineering and Design Costs	$5,156,000
Initial Federal Share	3,867,000	Ultimate Federal Share	3,867,000
Initial Non-Federal Share	1,289,000	Ultimate Non-Federal Share	1,289,000

The Water Resources Development Act of 1990 authorizes the project for construction. The cost sharing for construction of the project will be 75 percent Federal and 25 percent non-Federal in accordance with the Water Resources Development Act of 1986. Fiscal Year 2001 funds are being used to continue the reevaluation of the Deer Creek portion and initiate the University City portion of the project. The funds requested for Fiscal Year 2002 will be used to continue the reevaluation of both portions. The completion date for PED is being determined.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
St. Louis Flood Protection, MO St. Louis District	1,684,000	295,000	294,000	98,000	997,000

The St. Louis Flood Protection project area is located in St. Louis, Missouri, on the right bank of the Mississippi River between miles 176.3 and 187.2 above the mouth of the Ohio River. Approximately 3,160 acres of industrial and commercial development are protected from Mississippi River flooding by the completed St. Louis Flood Protection Project. During the Great Flood of 1993, which was less than the project's design, a short section of the project failed and only quick, extensive emergency actions by the City of St. Louis, Metropolitan St. Louis Sewer District, and Corps of Engineers prevented a large portion of the City of St. Louis from flooding. Significant potential problems identified with the project during 1993 include under seepage, foundation piping (which caused the failure in 1993), insufficient freeboard, pipe crossing, and toe drains and relief wells. Based on the Reconnaissance Report dated February 1999, preconstruction engineering and design is being resumed to initiate a cost-shared reconstruction evaluation to determine the Federal interest in correcting design or construction deficiencies. The recommended project, estimated to cost $8,000,000 with an estimated Federal cost of $6,000,000 and an estimated non-Federal cost of $2,000,000, includes correcting structural deficiencies, correcting geotechnical concerns, and enhancing recreation features within the project area. The City of St. Louis signed the Preconstruction Engineering and Design Agreement on 2 February 2000. PED will ultimately be cost-shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$2,245,000	Total Estimated Preconstruction Engineering and Design Costs	$2,245,000
Initial Federal Share	1,684,000	Ultimate Federal Share	1,684,000
Initial Non-Federal Share	561,000	Ultimate Non-Federal Share	561,000

The project is authorized for construction by Public Law 84-256, 9 August 1955. Cost sharing will be 75 percent Federal and 25 percent non-Federal in accordance with Section 103 of the Water Resources Development Act of 1986. Fiscal Year 2001 funds are being utilized to prepare a Reconstruction Evaluation Report. The funds requested in Fiscal Year 2002 will be used to continue the Reconstruction Evaluation Report. The completion date for PED is being determined.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
NORTH DAKOTA					
Devils Lake, ND St. Paul District	7,700,000	2,000,000	4,000,000	1,700,000	0

Devils Lake is located in northeastern North Dakota. Communities located on the lake include the City of Devils Lake (1990 population 7,782), the Spirit Lake Nation Indian Reservation, and the City of Minnewaukan. Camp Grafton, a National Guard training facility, is also located on the lakeshore. The lake has no natural outlet except at extremely high lake levels. The lake's levels have fluctuated widely throughout history and have risen approximately 25 feet since 1993, inundating much of the surrounding area; if the lake were to rise 13 feet it would flow into the Sheyenne River in the vicinity of Tolna, North Dakota. Problems caused by the recent high water include transportation, urban, and lakeshore flood damages and water quality. Over $500 million in potential flood damages are at risk between the present lake level and the natural overflow elevation. The objective of the proposed project is to reduce the flood damages related to the rising lake levels in the flood-prone areas around Devils Lake and to reduce the potential for a natural overflow event. The North Dakota State Water Commission is the local sponsor and has demonstrated very strong support for the project. Preconstruction Engineering and Design (PED) funds were first provided in the Supplemental Appropriations and Rescissions Act, 1997, under the Flood Control and Coastal Emergencies account. That Act directed the Corps to initiate and complete PED, and the conference report associated with the Act directed that the policy of requiring concurrent non-Federal financing of PED shall not apply. PED ultimately will be cost shared at 35 percent non-Federal. Adjustments necessary to bring the non-Federal contribution in line with 35 percent project cost sharing will be accomplished in the first year of construction.

Total Estimated PED Costs	$7,700,000	Total Estimated PED Costs	$7,700,000
Initial Federal Share	7,700,000	Ultimate Federal Share	5,005,000
Initial Non-Federal Share	0	Ultimate Non-Federal Share	2,695,000

Fiscal Year 2001 funds are being used to continue PED activities including data collection and alternatives evaluation. The funds requested for Fiscal Year 2002 will be used to continue PED. The PED is scheduled for completion in October 2002.

Project	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Grafton, Park River, ND St. Paul District	1,000,000	100,000	840,000	60,000	0

The city of Grafton is located in Walsh County in northeastern North Dakota along the Park River where State Highway 81 and the Park River intersect approximately 340 miles northwest of Minneapolis – St. Paul, Minnesota. The recommended plan will provide flood protection for the city of Grafton; it consists of a 3.75-mile-long bypass channel that would extend upstream and to the west of Grafton along the South Branch Park River. The tieback levee will direct the flood flows to the inlet of the bypass channel. A diversion structure will be constructed at the point where the levee crosses the Park River. River flows that exceed 2,000 cubic feet per second (cfs) will be diverted through the proposed bypass channel. The project is estimated to cost $30,000,000 with an estimated Federal cost of $19,500,000 and an estimated non-Federal cost of $10,500,000. The city of Grafton is the local sponsor. The mayor and City Council of Grafton have demonstrated a very strong support for the project. Preconstruction Engineering and Design (PED) will ultimately be cost shared at 35 percent, but will be financed through the PED period at 25 percent. Adjustments necessary to bring the non-Federal contribution in line with 35 percent project cost sharing will be accomplished in the first year of construction.

Total Estimated PED Costs	$1,333,000	Total Estimated PED Costs	$1,333,000
Initial Federal Share	1,000,000	Ultimate Federal Share	866,000
Initial Non-Federal Share	333,000	Ultimate Non-Federal Share	467,000

The Water Resources Development Act of 1986 authorized construction of the Grafton project; project was subsequently deauthorized on 18 November 1991. The Water Resources Development Act of 1999 reauthorized the project for construction subject to a favorable reanalysis of project costs and benefits. In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, local interests will be required to provide lands, easements, rights-of-way, and borrow and excavated or dredged material or disposal areas; modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project; pay five percent of the costs allocated to flood control; contribute an additional amount in cash as necessary to bring the non-Federal share of costs allocated to flood control to a minimum 35 percent; and bear all costs of operation, maintenance, and replacement of the flood control facilities.

Fiscal Year 2001 funds are being used to continue preparation of a General Reevaluation Report. The funds requested in Fiscal Year 2002 will be used to complete a General Reevaluation Report and the plans and specifications for the first stage of construction. The completion schedule for preconstruction engineering and design is December 2001.

Total - Flood Control	20,326,000	3,576,000	5,815,000	3,546,000	7,389,000
TOTAL - PED	29,081,000	6,787,000	6,314,000	4,645,000	11,335,000
GRAND TOTAL - SURVEYS AND PED	169,736,000	78,179,000	15,749,000	16,700,000	59,108,000

APPROPRIATION TITLE: Construction, General – Channels and Harbors (Navigation)

PROJECT: Chain of Rocks Canal, Illinois (Continuing Deficiency Correction)

LOCATION: The Chain of Rocks Canal is located on the Mississippi River adjacent to river miles 184 to 194.4 in Madison County, Illinois.

DESCRIPTION: The recommended plan for design deficiency correction involves the installation of relief wells and construction of berms and a pump station. All work is programmed.

AUTHORIZATION: The original project was authorized by the River and Harbor Act of 2 March 1945.

REMAINING BENEFIT-REMAINING COST RATIO: 2.0 to 1 at 7 3/8 percent.

TOTAL BENEFIT-COST RATIO: 1.6 to 1 at 7 3/8 percent.

INITIAL BENEFIT-COST RATIO: 1.6 to 1 at 7 3/8 percent (FY 1999).

BASIS OF BENEFIT-COST RATIO: Based on the Chain of Rocks Design Deficiency Report dated July 1997 at October 1996 price levels.

SUMMARIZED FINANCIAL DATA

	Original Project	
Actual Federal Cost		$59,260,000
Actual Non-Federal Cost		0
Cash Contributions	$ 0	
Other Costs	0	
Total Original Project Cost		$59,260,000

STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	10	Being determined

PHYSICAL DATA

The proposed plan provides for correcting underseepage deficiencies on the nine-mile long levee, installing 30 new relief wells, replacing 50 nonfunctional relief wells, utility relocations, landside of the levee, adding fill to berms and filling in low areas, constructing a 292 cfs pump station, and constructing wetland mitigation features.

Remedial Work				ACCUM PCT OF EST FED COST (Remedial Work Only)
Estimated Federal Cost		$24,756,000		
Estimated Non-Federal Cost		0		
Cash Contributions	$ 0			
Other Costs	0			
Total Estimated Remedial Cost		$24,756,000		
Total Estimated Project Cost		$84,016,000		
Allocations to 30 September 2000		2,060,000		
Conference Allowance for FY 2001		2,100,000		
Allocation for FY 2001		1,835,000	[1]	
Allocations through FY 2001		3,895,000		16
Allocation Requested for FY 2002		3,617,000		30
Programmed Balance to Complete after FY 2002		17,244,000		
Unprogrammed Balance to Complete after FY 2002		0		

JUSTIFICATION: The Chain of Rocks Canal Levee System consists of a dual line of levees running parallel to the canal constructed as part of the Chain of Rocks Canal, Illinois, navigation project. The operation and maintenance of these levees is a 100 percent Federal responsibility. The eastern line of this levee system serves as an integral part of the main line levee protection to the East St. Louis and vicinity area. The east levee has demonstrated inadequate underseepage performance during past floods. Quick conditions and sand boils develop on the landside of the levee during high river stages. The original design assumptions related to the coefficients of permeability for the aquifer and top stratum materials were incorrect. The relief well system was found to be deficient. The levee relies on the impoundment of water against the landside toe of the levee in order to maintain levee stability; however, development over the last 40 years has prevented effective use of this method. Correction of the deficiencies will assure the integrity of the levee system and provide urban level protection for the East St. Louis metropolitan area. The average annual benefits for the design deficiency correction, all flood control, are $2,647,000.

[1] Reflects $336,000 reduction assigned as savings and slippage; $75,000 reprogrammed to the project; and $4,000 rescinded from the project in accordance with the Consolidated Appropriations Act, 2001.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Initiate: Pump Station	$ 300,000
Relocations	120,000
Berms, North Contract	1,767,000
Lands and Damages	50,000
Continue: Wetland Mitigation	200,000
Relief Wells	700,000
Planning, Engineering, and Design	260,000
Supervision and Administration	220,000
Total	3,617,000

NON-FEDERAL COST: The project is 100 percent Federal.

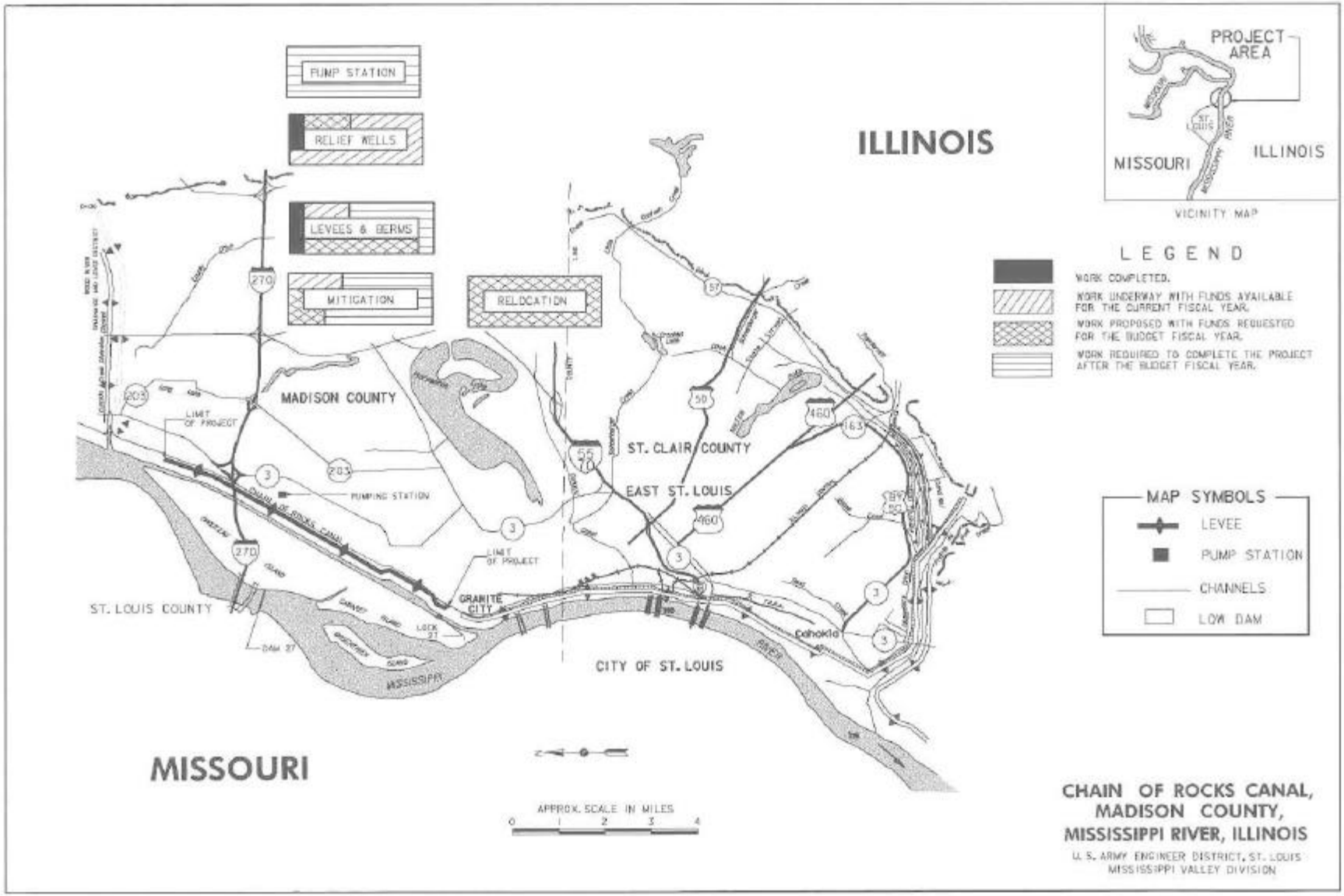
STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $24,756,000 is an increase of $1,028,000 from the latest estimate ($23,728,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ -470,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	1,498,000
Total	$1,028,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment resulted in a Finding of No Significant Impact (FONSI), which was signed 21 May 1996.

OTHER INFORMATION: Previous funding included the actual cost of $59,260,000 for the construction of the original project, which was completed in FY 1953. Funds to initiate construction for the remedial work were appropriated in FY 1999. The Corps is seeking a permanent easement of 72 acres within the Charles Melvin Price Support Center, a closing army base, for construction and operational purposes associated with the original project and the deficiency corrections. Fish and Wildlife costs are $1,175,000.


PUMP STATION
RELIEF WELLS
LEVEES & BERMS
MITIGATION
RELOCATION
ILLINOIS
MISSOURI
MADISON COUNTY
ST. CLAIR COUNTY
EAST ST. LOUIS
ST. LOUIS COUNTY
CITY OF ST. LOUIS
GRANITE CITY
Cahokia
PUMPING STATION
LIMIT OF PROJECT
CHAIN OF ROCKS CANAL
MISSISSIPPI
LOCK 27
DAM 27
PROJECT AREA
ST. LOUIS
MISSOURI
ILLINOIS
VICINITY MAP
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
MAP SYMBOLS
LEVEE
PUMP STATION
CHANNELS
LOW DAM
APPROX. SCALE IN MILES
0 1 2 3 4
CHAIN OF ROCKS CANAL,
MADISON COUNTY,
MISSISSIPPI RIVER, ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Mississippi River-Gulf Outlet, Louisiana (Continuing)

LOCATION: The project is located in the southeastern portion of Louisiana in Orleans, Plaquemines and St. Bernard Parishes, east of the Mississippi River. It is a deep draft seaway canal extending for approximately 76 miles from the junction of the IHNC and the GIWW in New Orleans, LA to the 38- foot contour in the Gulf of Mexico.

DESCRIPTION: The plan of improvement consists of four basic items: (1) a completed channel extending from the Inner Harbor Navigation Canal to the minus 38-foot contour in the Gulf of Mexico; (2) completed jetties and dikes along the channel in Breton Sound; (3) foreshore protection along the north and south side of the ship channel extending from the Inner Harbor Navigation Canal to the end of the hurricane protection levee. Foreshore protection is completed along the south bank, east of Bayou Bienvenue to the end of the Hurricane protection levee, and, west of Bayou Bienvenue to the intersection of the MRGO and GIWW. Completion of remaining foreshore protection along the MRGO is unprogrammed until need arises. A reevaluation study focusing on the deep draft navigation aspects of the project and the desirability/need for continued maintenance is programmed. This effort covers the navigation aspects of the potential modification of the project, as well as the environmental and flood control aspects.

AUTHORIZATION: River and Harbor Act of 1956, Water Resources Development Acts of 1976, 1986, and 1996.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable because project construction is substantially complete.

TOTAL BENEFIT - COST RATIO: 3.6 to 1 at 2-5/8 percent.

INITIAL BENEFIT - COST RATIO: 1.6 to 1 at 2-5/8 percent (Fiscal Year 1961).

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available draft evaluation report submitted in April 1982. A Reevaluation study to determine if the existing channel should be modified and the advisability of continuing its operation is scheduled for completion in September 2002.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost			$ 92,189,000		MRGO	88	Being determined [1]
Programmed Construction		82,265,000			Reevaluation Study	0	Being determined
Unprogrammed Construction		9,924,000			Entire Project	88	Being determined
Estimated Non-Federal Cost			8,811,000				
Programmed Construction		8,811,000					
Cash Contributions	0						
Other Cost	8,811,000						
Total Estimated Programmed Construction Cost			$ 91,076,000				
Total Estimated Unprogrammed Construction Cost			9,924,000				
Total Estimated Project Cost			$101,000,000				
Allocations to 30 September 2000			$ 80,765,000				
Conference Allowance for FY 2001			500,000				
Allocation for FY 2001			419,000 [2]				
Allocations through FY 2001			81,184,000	88			
Allocation Requested for FY 2002			500,000	89			
Programmed Balance to Complete After FY 2002			$ 581,000				
Unprogrammed Balance to Complete After FY 2002			$ 9,924,000				

[1] Schedule for completion of foreshore protection is indefinite until need arises.
[2] Reflects $80,000 reduction assigned as savings and slippage, and $1,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

PHYSICAL DATA

Channels:
Channel, 36 feet deep by 500 feet wide from Inner Harbor Navigation Canal to Chandeleur Islands; 66 miles.
Channel, 36 feet deep by 500 feet wide from Mississippi River to the Gulf Outlet.
Eased Entrance Channel widens gradually from 500 feet at Chandeleur Islands to 600 feet at the 38 foot contour in the Gulf of Mexico; 9.38 miles.
Turning basin, vicinity of Inner Harbor Navigation Canal.
Dikes in Breton Sound:
Northeast Retention Dike to Mile 20.2
Southwest Retention Dike to Mile 14.8

JUSTIFICATION: New Orleans is the gateway to the great system of inland waterways of the central valley of the nation. Adequate outlets to the Gulf of Mexico are essential to provide economical transportation to this area. The project provides an additional outlet to the Gulf that is shorter than the Mississippi River route and one which is not subject to as large stage fluctuations as is the river. The improvement provides a tidewater outlet and harbor sufficiently spacious for dispersion of docks and cargo-handling facilities, thus permitting flexible operations of the inland and seagoing commerce which is utilizing the river, the tidewater canal, and the Gulf Intracoastal Waterway. The project provides savings in sailing time and ship turnaround time, reduction in navigation hazards, and relief from congestion. A reevaluation study to determine if the existing channel should be modified and the advisability of continuing its operation is scheduled for completion in September 2002.

Fiscal Year 2002: The requested amount will be applied as follows:

Planning, Engineering and Design	$500,000
Total	$500,000

STATUS OF LOCAL COOPERATION: Assurances of local cooperation furnished by the Board of Commissioners of the Port of New Orleans were accepted on behalf of the United States on 29 August 1957. The Board of Commissioners executed amended assurances covering the provisions of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, which were accepted on behalf of the United States on 21 April 1975 .

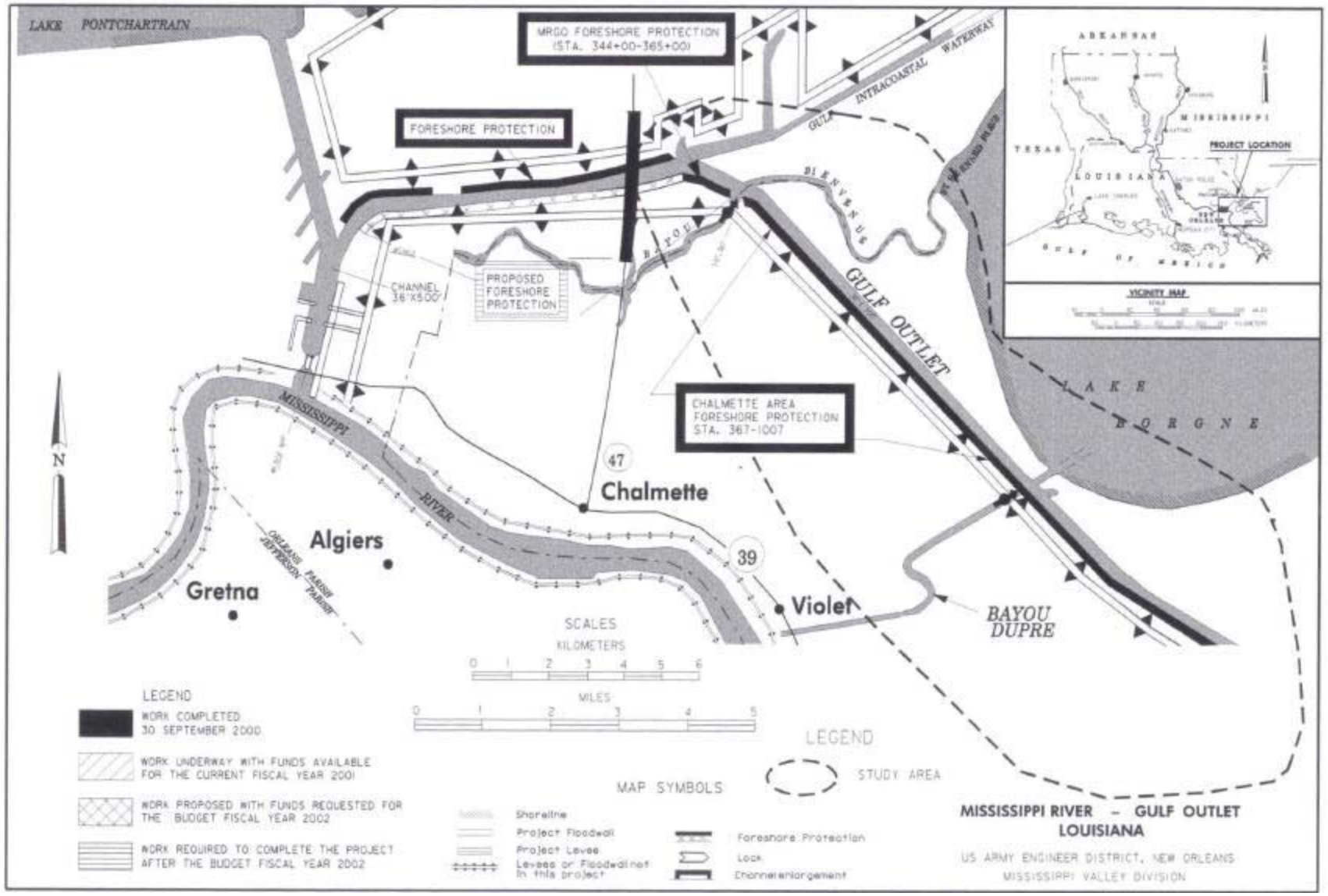
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate $92,189,000 is an increase of $2,189,000 from the estimate $90,000,000 presented to Congress (FY 1999). This change includes the following items:

ITEM	AMOUNT
Price Escalation on Construction Features	$ 189,000
Authorized Modifications	2,000,000
Total	$2,189,000

STATUS OF ENVIRONMENTAL IMPACT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 14 May 1976, and published in the Federal Register on 21 May 1976. An Environmental Impact Statement will be prepared as a result of the reevaluation study.

OTHER IMFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1957 and funds to initiate construction were appropriated in Fiscal year 1958.

Project authorization provided for the construction of a seaway canal 36 feet deep and 500 feet wide extending 70 miles as a land and water cut from a point south of the Intracoastal Waterway at Michoud south-easterly to Chandeleur Island, thence gradually increasing to a width of 600 feet and a depth of 38 feet in the Gulf of Mexico, with protective jetties at the entrance, a permanent retention dike through Chandeleur Sound and a wing dike along Breton Island as required. A turning basin was constructed at the landward end of the seaway canal, 36 feet deep, 1000 feet wide and 2000 feet long with a connecting channel 36 feet deep and 500 feet wide extending westerly along the Gulf Intracoastal Waterway from the turning basin to the Industrial Canal.


LAKE PONTCHARTRAIN
MRGO FORESHORE PROTECTION (STA. 344+00-365+00)
FORESHORE PROTECTION
GULF INTRACOASTAL WATERWAY
BLENVENUE
BAYOU
PROPOSED FORESHORE PROTECTION
CHANNEL 36'X500'
GULF OUTLET
CHALMETTE AREA FORESHORE PROTECTION STA. 367-1007
MISSISSIPPI
RIVER
47
Chalmette
39
Algiers
Gretna
ORLEANS PARISH
JEFFERSON PARISH
Violet
BAYOU DUPRE
LAKE BORGNE
N
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
PROJECT LOCATION
GULF OF MEXICO
VICINITY MAP
SCALES
KILOMETERS
0 1 2 3 4 5 6
MILES
0 1 2 3 4 5
LEGEND
WORK COMPLETED 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
MAP SYMBOLS
Shoreline
Project Floodwall
Project Levee
Levees or Floodwall not in this project
Foreshore Protection
Lock
Channel enlargement
LEGEND
STUDY AREA
MISSISSIPPI RIVER - GULF OUTLET
LOUISIANA
US ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Mississippi River Ship Channel, Gulf to Baton Rouge, Louisiana (Continuing)

LOCATION: The project is located in the southeast portion of Louisiana below Baton Rouge, in the parishes of Ascension, Assumption, St. James, St. Charles, Orleans, Lafourche, Jefferson, Plaquemines, St. Bernard, and St. John the Baptist, consisting of the Mississippi River and its major outlet to the Gulf of Mexico, Southwest Pass.

DESCRIPTION: The authorized project will provide more efficient deep-draft navigation access to the New Orleans and Baton Rouge reaches of the Mississippi River via Southwest Pass by enlarging the existing channel to a project depth of 55 feet; enlarging the adjacent channel along the left descending bank in New Orleans to a 40-foot depth, providing a turning basin at Baton Rouge, and providing training works in the passes and in four crossings between New Orleans and Baton Rouge to reduce maintenance. Construction of mitigation measures is required due to the saltwater intrusion caused by the deeper channel. The programmed work includes enlargement of the existing channel to an initial depth of 45 feet in the reach from the Gulf of Mexico to Mile 232.4 above New Orleans, the 40-foot enlargement in New Orleans Harbor, and construction of the mitigation works. The unprogrammed work includes enlargement of the 45-foot channel to 55 feet in the reach from the Gulf of Mexico to Mile 232.4, enlargement of the existing 40-foot channel to 55 feet from Mile 232.4 to Mile 233, construction of a turning basin at Baton Rouge, and training works in the passes.

AUTHORIZATION: Supplemental Appropriations Act of 1985, Water Resources Development Acts of 1986 and 1988, and the Energy and Water Development Appropriations Act of 1993.

REMAINING BENEFIT - REMAINING COST RATIO: 7.0 to 1 at 2-5/8 percent.

TOTAL BENEFIT - COST RATIO: 11.1 to 1 at 8-1/8 percent.

INITIAL BENEFIT - COST RATIO: 8.1 to 1 at 8-1/8 percent (FY 1985).

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation approved in July 1981 at 1980 price levels.

SUMMARIZED FINANCIAL DATA

			STATUS (1 Jan 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (CoE)		$ 179,800,000			
Programmed Construction	$ 35,234,000		Phase I	96	Indefinite[1]
Unprogrammed Construction	144,566,000		(Gulf-Mile 181, 45')		
			Phase II	100	Dec 1994
Estimated Appropriation Requirement (USCG)		1,200,000	(Mile 181-Baton Rouge, 45')		
Programmed Construction	0		Phase III	0	Indefinite[2]
Unprogrammed Construction	1,200,000		(Gulf-Baton Rouge, 55')		
Estimated Total Appropriation Requirement		$ 181,000,000	Entire Project	30	Indefinite[2]
Programmed Construction	35,234,000				
Unprogrammed Construction	145,766,000				
Future Non-Federal Reimbursement		1,161,000			
Programmed Construction	1,161,000				
Unprogrammed Construction	0				
Estimated Federal Cost (CoE) (Ultimate)		$ 178,639,000			
Programmed Construction	34,073,000				
Unprogrammed Construction	144,566,000				
Estimated Non-Federal Cost (Ultimate)		$ 446,000,000			
Programmed Construction	21,080,000				
Cash Contributions	$ 4,750,000				
Other Costs	15,169,000				
Reimbursements	1,161,000				
Navigation	$ 1,161,000				

[1] Completion of mitigation will depend on future growth in Plaquemines Parish.

[2] Phase III work on the GDM is programmed. The remaining Phase III work is unprogrammed pending the results of the GDM investigations.

SUMMARIZED FINANCIAL DATA (Continued)

Unprogrammed Construction		$ 424,920,000	
Cash Contributions	$ 144,601,000		
Other Costs	280,319,000		
Reimbursements	0		
Navigation	0		

Total Estimated Programmed Construction Cost	$ 56,314,000	
Total Estimated Unprogrammed Construction Cost	$ 570,686,000	
Total Estimated Project Cost	$ 627,000,000	
		ACCUM.
Allocations to 30 September 2000	25,766,000	PCT. OF EST.
Conference Allowance for FY 2001	719,000	FED. COST
Allocation for FY 2001	1,653,000 [1]	
Allocations through FY 2001	27,419,000	15
Allocation Requested for FY 2002	575,000	16
Programmed Balance to Complete After FY 2002	$ 7,240,000	
Unprogrammed Balance to Complete After FY 2002	$ 144,566,000	

PHYSICAL DATA

Channels and Canals:
Southwest Pass: 55 feet deep (Mean Low Gulf) by 750 feet wide, 17.5 miles.
Southwest Pass Bar Channel: 55 feet deep (Mean Low Gulf) by 600 feet wide from Mile 18.0 below Head of Passes to the -55 foot (Mean Low Gulf) contour in the Gulf of Mexico (Mile 22.1 below Head of Passes)

Mississippi River: 55 feet deep (Mean Low Gulf) by 750 feet wide, 233 miles long.
Baton Rouge Turning Basin: 55 feet deep (Mean Low Gulf) by 1,600 feet wide, 4,000 feet long.

Breakwaters and Seawalls:
Control and contraction structures in South Pass and Pass-a-Loutre. Size and number of structures to be determined in the future.

[1] Reflects $115,000 reduction assigned as savings and slippage; $1,050,000 reprogrammed to the project, and $1,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

Mitigation Measures:
Underwater dredged material sill at Mile 64 Above Head of Passes (top elevation -55.0 Mean Low Gulf), modifications to the Belle Chasse water treatment plant with water supply pipelines to the West Pointe-a-la-Hache and Boothville water treatment plants, and construction of a water supply reservoir at Davant, LA to supply the East Pointe-a-la-Hache water treatment plant. Until construction of a permanent mitigation plan is completed, an interim plan has been implemented to barge fresh raw water, with Operations and Maintenance, General funds, to three existing water treatment plants during periods of increased salinity caused by the deeper channel. (See Other Information).

JUSTIFICATION: According to the latest data, the ports of South Louisiana, Baton Rouge, New Orleans, and Plaquemines are ranked as the first, fourth, sixth, and seventh ports in the United States, respectively, based on the total tonnage of waterborne commerce. Collectively, these ports represent the greatest concentration of Waterborne Commerce in the United States. Much of this commerce is in liquid bulk and dry bulk oceangoing cargo which could be shipped much more economically using a deeper channel. The cargo was previously shipped in smaller ships or in lightly loaded larger ships over the 40-foot deep channel. The construction of the 45-foot channel has resulted in significant savings in the transportation cost of the oceangoing commerce moving over the channel. Deepening the channel to 55 feet will result in additional significant savings. The average annual benefits, all navigation, are $1,292,000,000, based on October 1980 prices.

Existing Commerce (000 tons):

Commodity	1991 (000)	1992 (000)	1993 (000)	1994 (000)	1995[1] (000)
Coal and Coal Products	55,257	51,694	42,295	42,175	43,411
Petroleum and Petroleum Products	67,046	69,173	72,331	70,081	69,582
Crude Petroleum	48,687	52,459	58,877	60,997	55,467
Chemicals and Chemical Products	35,256	36,608	38,511	44,979	46,443
Crude Materials, Inedible (except fuels)	36,478	35,381	36,919	40,903	41,300
Primary Manufactured Goods	11,792	10,544	13,476	27,078	28,255
Food & Farm Products	39,045	42,169	39,533	38,317	40,727
Corn	70,059	72,743	65,121	59,522	80,655
Wheat	16,705	21,455	16,223	12,820	13,971
Soybeans	30,171	33,111	31,718	29,911	33,630
Manufactured Equip, Machinery & Products	824	845	980	876	938
Miscellaneous	76	161	164	192	266
Total	411,396	426,343	416,148	427,851	454,645

[1] Latest available information.

The average deep draft tonnage trafficked thru the project from 1979 thru 1989 was 183,197,960 tons. The deep draft savings per ton for liquid bulk cargo is $4.60; for dry bulk cargo, $6.60, and for general cargo, $.90. The ships expected to traffic the project in the future would carry up to 150,000 DWT (dead weight tons). Dredged material will be deposited on lands adjacent to the channel from Venice, Louisiana to the Gulf of Mexico. A substantial amount of these lands are within existing rights-of-way. Disposal for construction work above Venice, Louisiana, will be accomplished in the main channel of the Mississippi River.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue:	
Permanent Saltwater Intrusion Mitigation Facilities	$ 200,000
Planning, Engineering and Design - Phase I	47,000
Planning, Engineering and Design - Phase III	328,000
Total Project	$ 575,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Acts of 1986 and 1988, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Phase I, 45', Gulf - Mile 181.0	$ 158,000	$
Provide lands, easements, rights-of-way and dredged material disposal areas.		
Modify or relocate pipelines and submarine cables where necessary for the construction of the project.	6,795,000	
Dredge New Orleans Harbor.	1,106,000	
Pay 25 percent of costs to construct the channel to 45 feet (cash contributions and/or equivalent work).	3,237,000	
Pay 25 percent of costs for mitigation reimbursement contributions and/or equivalent work.	6,356,000	
Pay maintenance dredging costs adjacent to New Orleans harbor wharves.		1,460,000
Pay an additional 10 percent of the cost allocated to deep draft navigation within a period of 30 years following completion of construction [which is partially offset by a credit allowed for the value of lands, easements, rights-of-way, relocations and dredged material disposal areas].	1,161,000	
Subtotal, Phase I	$ 18,813,000	$ 1,460,000

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Phase II, 45', Mile 181 to Baton Rouge	$ 736,000	$
Modify or relocate pipelines and submarine cables where necessary for the construction of the project.		
Pay 25 percent of costs to construct the channel to 45 feet (cash contributions).	1,531,000	
Subtotal, Phase II	$ 2,267,000	
Phase III, 55', Gulf to Baton Rouge		
Provide lands, easements, rights-of-way and dredged material disposal areas.	$ 435,000	
Modify or relocate pipelines and submarine cables where necessary for the construction of the project.	279,884,000	
Pay 25 percent of costs to construct the channel to 45 feet (cash contributions).	1,463,000	
Pay 50 percent of costs to construct the channel from 45 feet to 55 feet (cash contributions).	143,138,000	
Pay 50 percent of maintenance dredging costs between 45 feet and 55 feet.		51,034,000
Subtotal, Phase III	$ 424,920,000	$ 51,034,000
Project Total	$ 446,000,000	$ 52,494,000

The non-Federal sponsor has agreed to make all payments of first costs (excluding the reimbursement) concurrently with project construction and to pay an additional 10 percent reimbursement of the costs allocated to deep draft navigation less a credit for the value of lands, easements, rights-of-way, relocations, and dredged material disposal area, within a period of 30 years following completion of construction.

STATUS OF LOCAL COOPERATION: On 13 September 1985, the Governor of the State of Louisiana designated the Louisiana Department of Economic Development, formerly the Department of Commerce, as the local sponsor for the project. A Local Cooperation Agreement for a 45-foot channel from the Gulf of Mexico to Mile 181 Above Head of Passes (Phase I) was executed on 30 June 1986. The first supplement to the Local Cooperation Agreement reflecting the Water Resources Development Act of 1986 cost-sharing provisions was executed on 15 June 1987. A second supplement reflecting the changes required by the Water Resources Development Act of 1988 was executed on 25 June 1990. A third supplement was executed on 28 May 1993 that provides for the local sponsor to construct the permanent saltwater intrusion mitigation facilities. (See Other Information for more details). A Project Cooperation Agreement for the 45-foot channel from Mile 181 to Mile 232.4 (Phase II) was executed on 3 September 1993.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $179,800,000 is an increase of $3,800,000 from the latest estimate ($176,000,000) presented to Congress (FY 2001). This change includes the following item:

Item	Amount
Price Escalation on Construction Features	$ 3,800,000
Total	$ 3,800,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency on 2 July 1982. A Supplemental Information Report to this final Environmental Impact Statement addressing the prototype dredging of Fairview Crossing was filed with the Environmental Protection Agency on 28 July 1983. A similar report addressing construction of a prototype saltwater intrusion sill was filed with the Environmental Protection Agency on 14 September 1983. A Supplemental Information Report addressing the underwater dredged material sill at Mile 64 Above Head of Passes, to mitigate for increased saltwater intrusion, was filed with the Environmental Protection Agency on 24 September 1985. An Environmental Assessment/Finding of No Significant Impact for the Venice, Louisiana to Mile 181 Above Head of Passes reach, for dredging four crossings and the approach channels to berthing areas in New Orleans Harbor, was filed with the Environmental Protection Agency on 18 December 1987. Another Environmental Assessment/Finding of No Significant Impact addressing the interim saltwater mitigation plan and revised marsh creation quantities was filed with the Environmental Protection Agency on 22 April 1987. Another Environmental Assessment/Finding of No Significant Impact addressing the training works required at four crossings between mile 181 Above Head of Passes and mile 232.4 Above Head of Passes was signed on 13 July 1990. Another Environmental Assessment/Finding of No Significant Impact addressing the permanent saltwater intrusion mitigation plan (water pipeline construction) was signed on 15 January 1991. An Environmental Assessment/Finding of No Significant Impact evaluating dredging of Sardine Point was completed 1 April 1991.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1982, and funds to initiate construction were appropriated in Fiscal Year 1985.

Dredging of the 45-foot channel south of New Orleans to the Gulf of Mexico was completed on 1 December 1987. Dredging of the 45-foot channel from New Orleans to Mile 181 Above Head of Passes was completed on 17 December 1988. Dredging of the 45-foot channel from Mile 181 Above Head of Passes to Baton Rouge (Mile 232.4) was completed on 9 December 1994.

As a result of severe drought conditions in the midwest part of the country during the summer of 1988, interim saltwater intrusion mitigation measures for the 45-foot channel were implemented on 30 June 1988, with construction of an underwater dredged material sill in the Mississippi River at Mile 63.7 Above Head of Passes which was completed to an elevation of -45.0 feet NGVD on 1 August 1988.

Part of the interim mitigation plan was to barge fresh water to the three municipal water treatment plants at Boothville and at East and West Pointe-a-la-Hache, Louisiana, downstream of the sill. Approximately 101 million gallons of water was barged, commencing on 14 July 1988 and continuing through 2 December 1988. Operations and Maintenance, General, funds were used for both the barging operation and sill construction. The intrusion event was dealt with effectively, and both the sill and the barging of freshwater to Lower Plaquemines Parish were demonstrated to be practicable.

The permanent mitigation plan involves the State of Louisiana assuming the responsibility for Plaquemines Parish to upgrade their existing water distribution system to handle the increase in saltwater intrusion caused by the 45-foot channel. The Corps of Engineers will reimburse the State for the Federal share (75%) of the cost for this plan which is more cost effective than the Corps' barging plan for a 45-foot channel. The State will relieve the Corps of responsibility to mitigate for the potable water needs in lower Plaquemines Parish when this plan is complete. Federal participation in the construction of the permanent mitigation plan is limited by a cost cap. The cost cap was incorporated into the third supplemental local cooperation agreement for Phase I. The cost cap is based on the least costly Federal alternative which is the cost to barge water to Plaquemines Parish during times of increased salinity caused by the deeper channel over the 50-year project life. Once the cost of the permanent mitigation plan equals or exceeds the cost cap, Federal participation in mitigation for Phase I of the project will end. Construction of the permanent mitigation plan began on 21 October 1993. The Corps remains responsible for construction of the underwater sill to mitigate above Mile 64 above Head of Passes when required. Design Memorandum Supplement No. 6 covering the permanent mitigation plan was approved on 7 December 1992.

Phase II of the project provides for the construction of the 45-foot channel from mile 181.0 to Baton Rouge. Language contained in the Fiscal Year 1993 Energy and Water Development Appropriations Conference Report directed the Corps to initiate construction of Phase II immediately after execution of the Project Cooperation Agreement. The Project Cooperation Agreement was executed on 3 September 1993. Construction of the 45-foot channel in this reach began on 31 July 1994 and was completed on 9 December 1994.

The State of Louisiana requested a preliminary analysis of Phase III, the remaining work on the authorized project. This analysis included a review of cost estimates and design assumptions and proposals for maintenance dredging reductions. Based on the results of this analysis, the State of Louisiana requested the Corps to proceed with a General Design Memorandum for the Phase III work. A General Design Memorandum is scheduled for submission in March 2002.

SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS:

			PHASE I		
Estimated Appropriation Requirement					
(Corps of Engineers)				$ 28,778,000	
Programmed Construction			$ 28,778,000		
Unprogrammed Construction			0		
Estimated Appropriation Requirement					
(US Coast Guard)					0
Programmed Construction			0		
Unprogrammed Construction			0		
Estimated Total Appropriation Requirement				$ 28,778,000	
Programmed Construction			28,778,000		
Unprogrammed Construction			0		
Future Non-Federal Reimbursement				1,161,000	
Programmed Construction			1,161,000		
Unprogrammed Construction			0		
Estimated Federal Cost (Ultimate)					
(Corps of Engineers)				$ 27,617,000	
Programmed Construction			27,617,000		
Unprogrammed Construction			0		
Estimated Non-Federal Cost (Ultimate)				$ 18,813,000	
Programmed Construction			18,813,000		
Cash Contributions		$ 3,237,000			
Other Costs		14,415,000			
Reimbursements		1,161,000			
Navigation	$ 1,161,000				
Unprogrammed Construction			0		
Total Estimated Programmed Construction Cost				$ 46,430,000	
Total Estimated Unprogrammed Construction Cost				$ 0	
Total Estimated Project Cost				$ 46,430,000	

REMAINING BENEFIT - REMAINING COST RATIO FOR PHASE I: Not applicable because construction is complete.

TOTAL BENEFIT - COST RATIO FOR PHASE I: The Phase I channel has been complete since 1988. A total benefit-cost ratio was not computed for Phase I as a separable element.

		PHASE II	
Estimated Appropriation Requirement			
(Corps of Engineers)			$4,594,000
Programmed Construction		$4,594,000	
Unprogrammed Construction		0	
Estimated Appropriation Requirement			
(US Coast Guard)			0
Programmed Construction		0	
Unprogrammed Construction		0	
Estimated Total Appropriation Requirement			$4,594,000
Programmed Construction		4,594,000	
Unprogrammed Construction		0	
Future Non-Federal Reimbursement			0
Programmed Construction		0	
Unprogrammed Construction		0	
Estimated Federal Cost (Ultimate)			
(Corps of Engineers)			$4,594,000
Programmed Construction		4,594,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost (Ultimate)			$2,267,000
Programmed Construction		2,267,000	
Cash Contributions	$ 1,513,000		
Other Costs	754,000		
Reimbursements	0		
Unprogrammed Construction		0	
Total Estimated Programmed Construction Cost			$ 6,861,000
Total Estimated Unprogrammed Construction Cost			$ 0
Total Estimated Project Cost - Phase II			$ 6,861,000

REMAINING BENEFIT - REMAINING COST RATIO FOR PHASE II: Not applicable because construction is complete.

TOTAL BENEFIT-COST RATIO FOR PHASE II: The Phase II channel was completed on 9 December 1994.

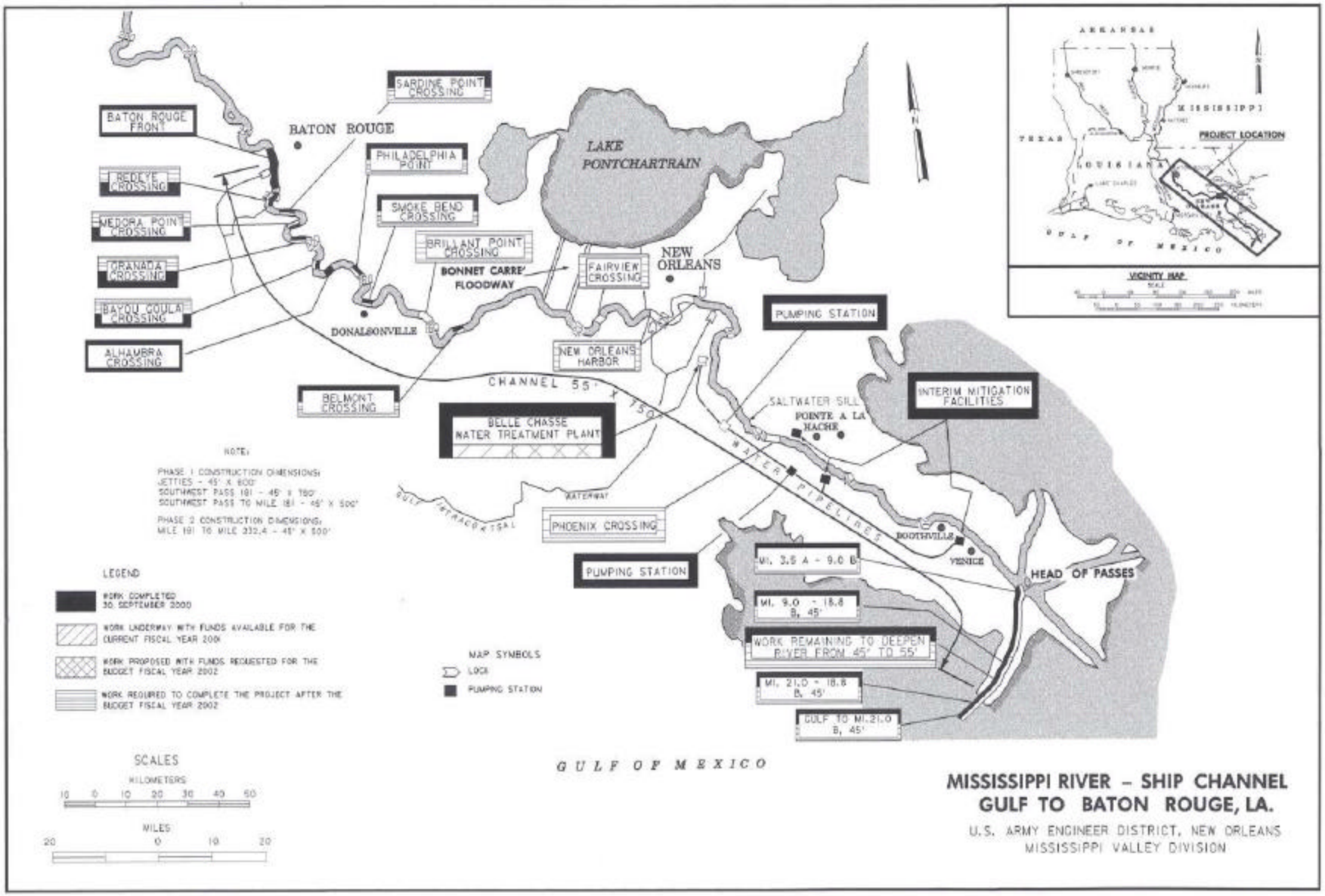
PHASE III

Estimated Appropriation Requirement			
(Corps of Engineers)			$ 147,589,000
Programmed Construction		$ 3,023,000	
Unprogrammed Construction		$ 144,566,000	
Estimated Appropriation Requirement			
(US Coast Guard)			$ 1,200,000
Programmed Construction		$ 0	
Unprogrammed Construction		$ 1,200,000	
Estimated Total Appropriation Requirement			$ 148,789,000
Programmed Construction		$ 3,023,000	
Unprogrammed Construction		$ 145,766,000	
Future Non-Federal Reimbursement			$ 0
Programmed Construction		$ 0	
Unprogrammed Construction		$ 0	
Estimated Federal Cost (Ultimate)			
(Corps of Engineers)			$ 147,589,000
Programmed Construction		$ 3,023,000	
Unprogrammed Construction		$ 144,566,000	
Estimated Non-Federal Cost (Ultimate)			$ 424,920,000
Programmed Construction		$ 0	
Cash Contributions	$ 0		
Other Costs	0		
Reimbursements	0		
Unprogrammed Construction		$ 424,920,000	$ 424,920,000
Cash Contributions	$ 144,601,000		
Other Costs	$ 280,319,000		
Reimbursements	0		

Total Estimated Programmed Construction Cost	$ 3,023,000
Total Estimated Unprogrammed Construction Cost (includes $1,200 for Coast Guard)	$ 570,686,000
Total Estimated Project Cost - Phase III	$ 573,709,000

REMAINING BENEFIT - REMAINING COST RATIO FOR PROGRAMMED SEPARABLE ELEMENTS: The remaining benefit - remaining cost ratio for Phase III is being determined in the GDM studies which are currently underway.

TOTAL BENEFIT - COST RATIO FOR PROGRAMMED SEPARABLE ELEMENTS: The total benefit - cost ratio for Phase III is being determined in the GDM studies which are currently underway.


BATON ROUGE FRONT
REDEYE CROSSING
MEDORA POINT CROSSING
GRANADA CROSSING
BAYOU GOULA CROSSING
ALHAMBRA CROSSING
BATON ROUGE
SARDINE POINT CROSSING
PHILADELPHIA POINT
SMOKE BEND CROSSING
BRILLANT POINT CROSSING
BONNET CARRE' FLOODWAY
DONALSONVILLE
BELMONT CROSSING
LAKE PONTCHARTRAIN
FAIRVIEW CROSSING
NEW ORLEANS
NEW ORLEANS HARBOR
CHANNEL 55' X 750'
BELLE CHASSE WATER TREATMENT PLANT
PUMPING STATION
SALTWATER SILL
POINTE A LA HACHE
INTERIM MITIGATION FACILITIES
WATER PIPELINES
GULF INTRACOASTAL
WATERWAY
PHOENIX CROSSING
PUMPING STATION
BOOTHVILLE
VENICE
HEAD OF PASSES
MI. 3.6 A - 9.0 B
MI. 9.0 - 18.8 B, 45'
WORK REMAINING TO DEEPEN RIVER FROM 45' TO 55'
MI. 21.0 - 18.8 B, 45'
GULF TO MI. 21.0 B, 45'
GULF OF MEXICO
NOTE:
PHASE 1 CONSTRUCTION DIMENSIONS:
JETTIES - 45' X 600'
SOUTHWEST PASS 181 - 45' X 750'
SOUTHWEST PASS TO MILE 181 - 45' X 500'
PHASE 2 CONSTRUCTION DIMENSIONS:
MILE 181 TO MILE 232.4 - 45' X 500'
LEGEND
WORK COMPLETED 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
MAP SYMBOLS
LOCK
PUMPING STATION
SCALES
KILOMETERS
10 0 10 20 30 40 50
MILES
20 0 10 20
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
GULF OF MEXICO
PROJECT LOCATION
VICINITY MAP
MISSISSIPPI RIVER - SHIP CHANNEL
GULF TO BATON ROUGE, LA.
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General – Channels and Harbors (Navigation)

PROJECT: Mississippi River Between the Ohio and Missouri Rivers (Regulating Works), Missouri and Illinois (Continuing)

LOCATION: The project involves improvement of the Mississippi River from the mouth of the Ohio River to the mouth of the Missouri River at mile 195 above the mouth of the Ohio River. The project covers the following counties: (Missouri) St. Louis, Jefferson, Ste. Genevieve, Perry, Cape Girardeau, Scott, Mississippi; (Illinois) Madison, St. Clair, Monroe, Randolph, Jackson, Union, Alexander, and Pulaski.

DESCRIPTION: The project consists of a navigation channel 9 feet deep and not less than 300 feet wide with additional width in bends, from the mouth of the Ohio River to the northern boundary of the City of St. Louis, a distance of approximately 191 miles, thence 200 feet wide, with additional width in bends, to the mouth of the Missouri River. It will be achieved by means of dikes, revetment, construction dredging, and rock removal. All work is programmed.

AUTHORIZATION: River and Harbor Acts of 1910, 1927, and 1930.

REMAINING BENEFIT-REMAINING COST RATIO: 23.9 to 1 at 2.5 percent.

TOTAL BENEFIT-COST RATIO: 10.5 to 1 at 2.5 percent.

INITIAL BENEFIT-COST RATIO: 4.5 to 1 at 2.5 percent (FY 1961).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Upper Mississippi River Master Plan Report of 1982 at 1986 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$269,273,000		Entire Project	77	Being determined
Estimated Non-Federal Cost	0				
Cash Contributions	0				
Other Cost	0		PHYSICAL DATA		
Total Estimated Project Cost	$269,273,000		Channel 195 miles		
			Ohio River to St. Louis 9 x 300 feet		
Allocations to 30 September 2000	$193,240,000		St. Louis to Missouri River 9 x 200 feet		
Conference Allowance for FY 2001	6,500,000				
Allocations for FY 2001	5,447,000 [1]				
Allocations through FY 2001	198,687,000	74			
Allocation Requested for FY 2002	4,000,000	75			
Programmed Balance to Complete After FY 2002	66,586,000				
Unprogrammed Balance to Complete After FY 2002	0				

JUSTIFICATION: The Mississippi River between the Ohio and Missouri Rivers is a major artery of the inland waterway system. Commerce in this reach has increased from 4,500,000 tons in 1945 to 124,692,000 tons in 1999 worth approximately $15 billion. Commerce is expected to increase to 167,000,000 tons by the year 2020; therefore, it is essential that construction of project works be continued at a rate which will insure 9-foot channel depths for a year-round navigation season. The average annual benefits, all navigation, are $261,809,000.

1 Reflects $1,040,000 reduction assigned as savings and slippage and $13,000 rescinded from the project in accordance with the Consolidated Appropriations Act, 2001.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Initiate and Complete: Ft. Chartres Reach, Phase 4, Mile 140-125	$ 610,000
Continue: Lands and Damages	265,000
Thompson Bend Riparian Corridor	15,000
Project Dedicated Operating Equipment	25,000
Complete: Mosenthein Reach/Ivory Landing, Channel Mile 195-154	1,460,000
Planning, Engineering and Design	1,500,000
Supervision and Administration	125,000
Total	$4,000,000

NON-FEDERAL COST: None

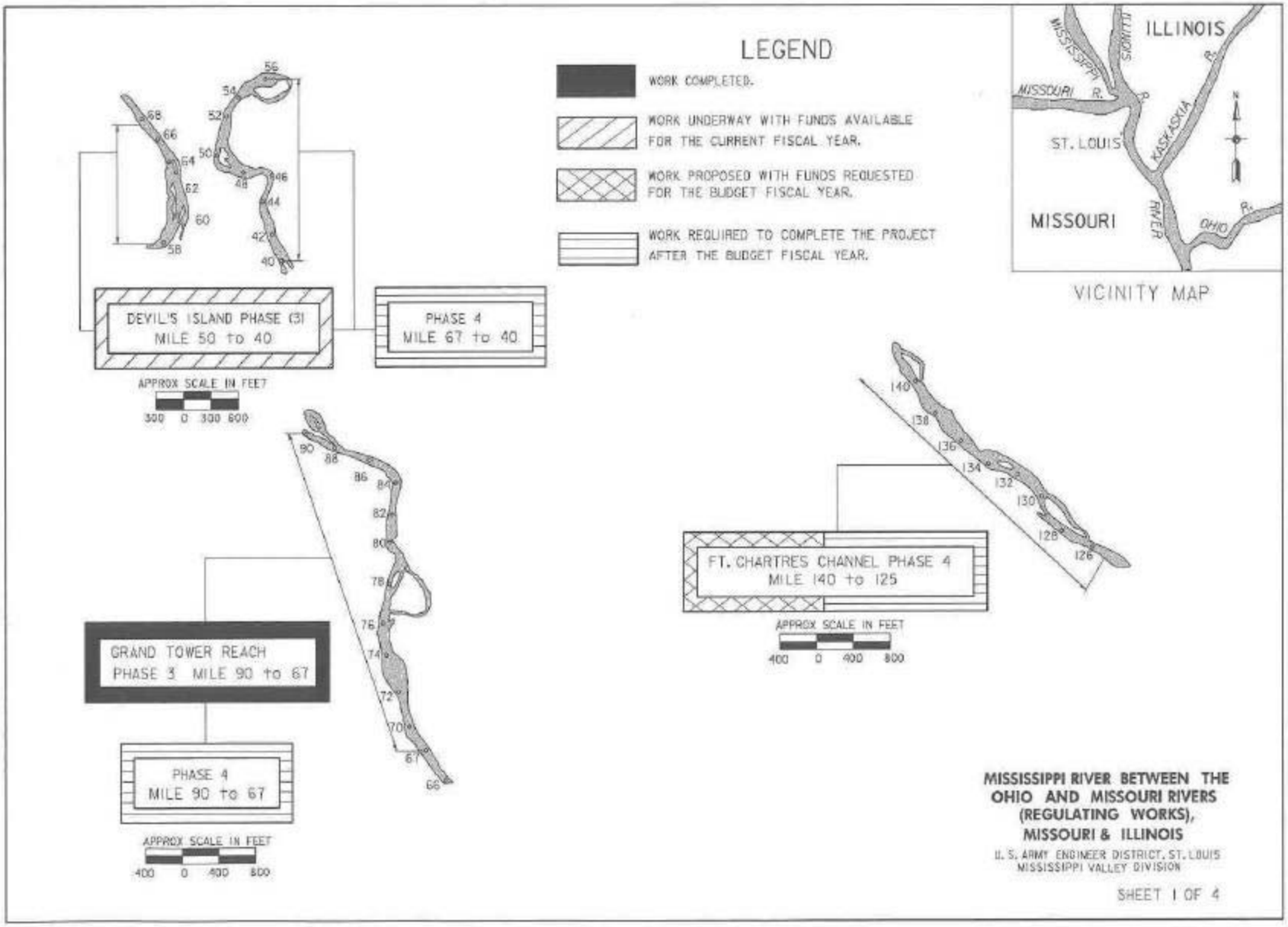
STATUS OF LOCAL COOPERATION: Not applicable.

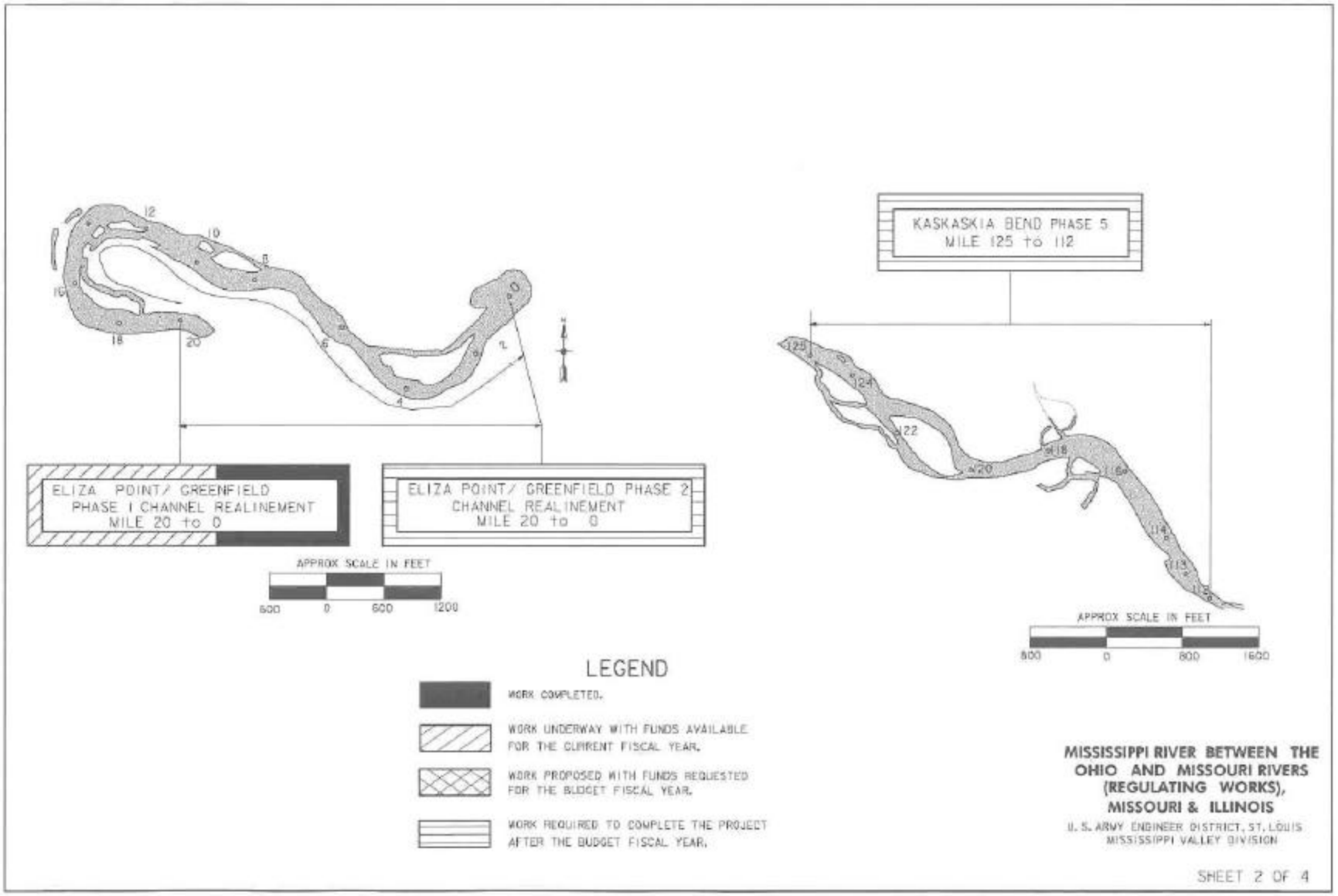
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $269,273,000 is a decrease of $5,054,000 from the latest estimate ($274,327,000) presented to Congress (FY 2001). This change includes the following items:

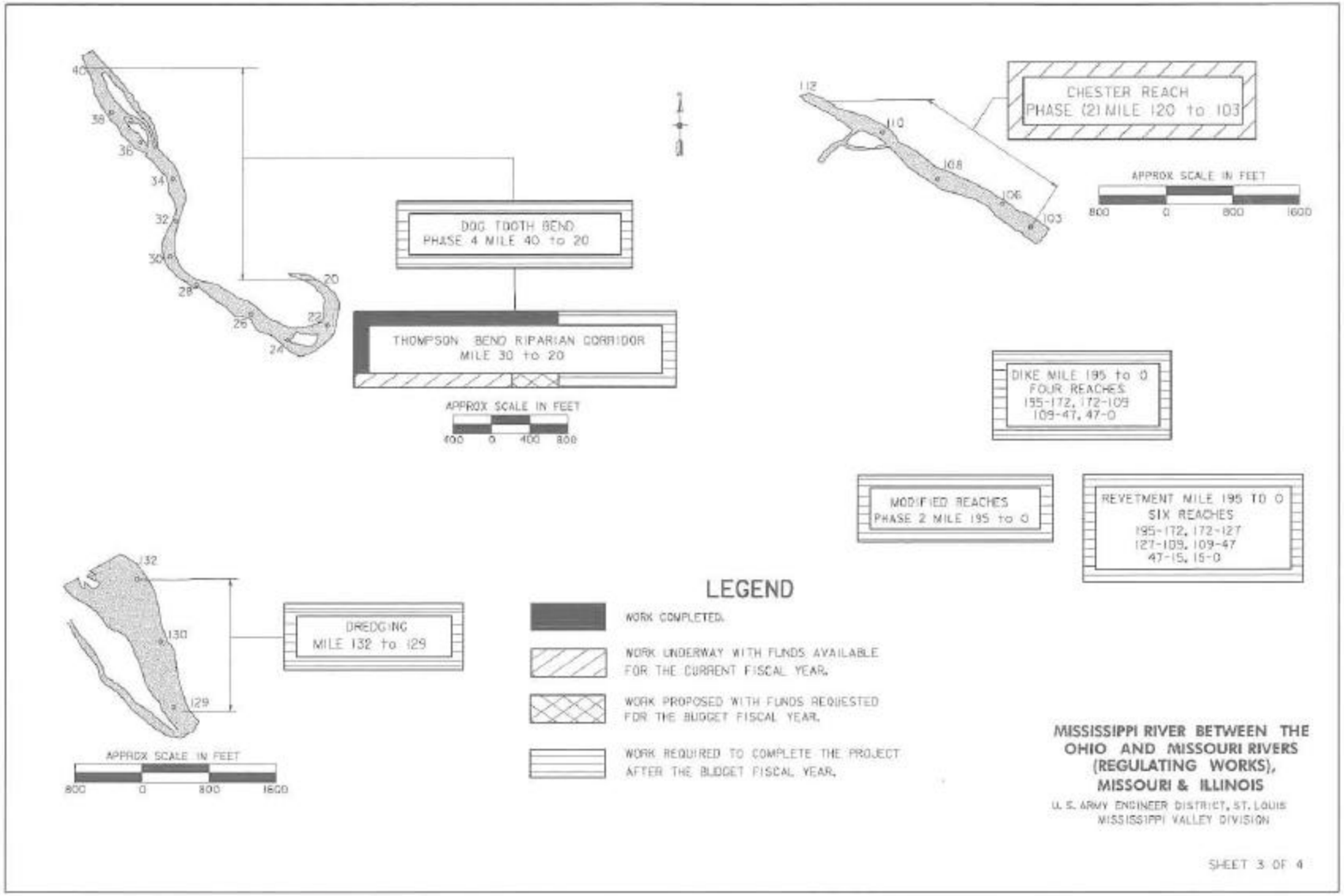
Item	Amount
Price Escalation on Construction Features	$-5,054,000
Post Contract Award and Other Estimating Adjustments	-2,011,000
Schedules Changes	2,011,000
Total	$-5,054,000

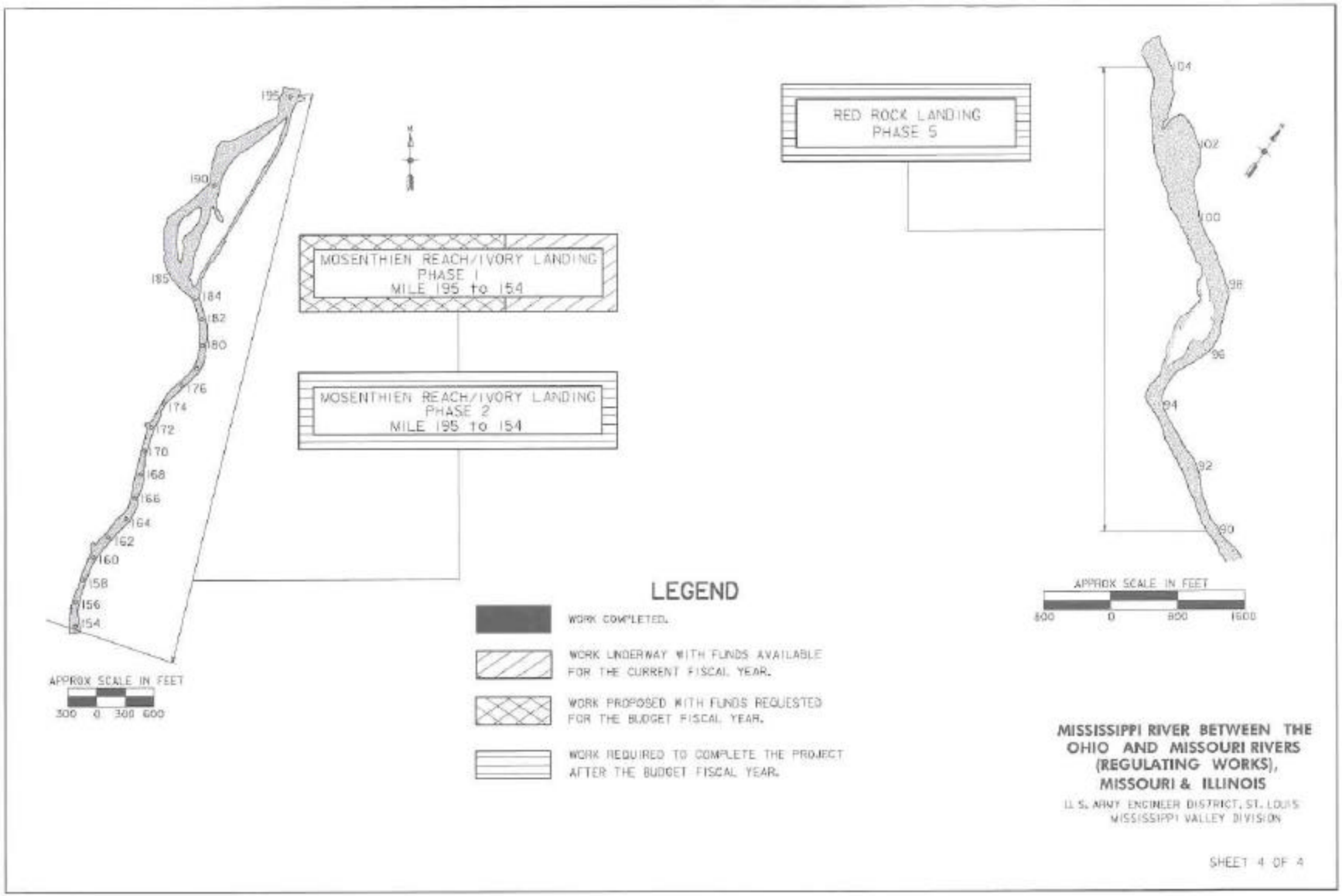
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 8 April 1976 and published in the Federal Register on 23 April 1976. An Environmental Analysis was completed for the Rock Removal and Finding of No Significant Impact signed on 28 October 1988.

OTHER INFORMATION: Planning was initiated prior to 1910, and construction was initiated in 1910. This project requires no mitigation.


LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
ILLINOIS
MISSISSIPPI
MISSOURI R.
ST. LOUIS
KASKASKIA
MISSOURI
RIVER
OHIO R.
VICINITY MAP
DEVIL'S ISLAND PHASE (3)
MILE 50 to 40
PHASE 4
MILE 67 to 40
APPROX SCALE IN FEET
300 0 300 600
GRAND TOWER REACH
PHASE 3 MILE 90 to 67
PHASE 4
MILE 90 to 67
APPROX SCALE IN FEET
400 0 400 800
FT. CHARTRES CHANNEL PHASE 4
MILE 140 to 125
APPROX SCALE IN FEET
400 0 400 800
MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REGULATING WORKS), MISSOURI & ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION
SHEET 1 OF 4


ELIZA POINT/ GREENFIELD
PHASE I CHANNEL REALINEMENT
MILE 20 to 0
ELIZA POINT/ GREENFIELD PHASE 2
CHANNEL REALINEMENT
MILE 20 to 0
APPROX SCALE IN FEET
600 0 600 1200
KASKASKIA BEND PHASE 5
MILE 125 to 112
APPROX SCALE IN FEET
800 0 800 1600
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REGULATING WORKS), MISSOURI & ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION
SHEET 2 OF 4


DOG TOOTH BEND
PHASE 4 MILE 40 to 20
THOMPSON BEND RIPARIAN CORRIDOR
MILE 30 to 20
APPROX SCALE IN FEET
400 0 400 800
CHESTER REACH
PHASE (2) MILE 120 to 103
APPROX SCALE IN FEET
800 0 800 1600
DIKE MILE 195 to 0
FOUR REACHES
195-172, 172-109
109-47, 47-0
MODIFIED REACHES
PHASE 2 MILE 195 to 0
REVETMENT MILE 195 TO 0
SIX REACHES
195-172, 172-127
127-109, 109-47
47-15, 15-0
DREDGING
MILE 132 to 129
APPROX SCALE IN FEET
800 0 800 1600
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REGULATING WORKS), MISSOURI & ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION
SHEET 3 OF 4


MOSENTHIEN REACH/IVORY LANDING
PHASE 1
MILE 195 to 154
MOSENTHIEN REACH/IVORY LANDING
PHASE 2
MILE 195 to 154
RED ROCK LANDING
PHASE 5
APPROX SCALE IN FEET
300 0 300 600
APPROX SCALE IN FEET
800 0 800 1600
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REGULATING WORKS), MISSOURI & ILLINOIS
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION
SHEET 4 OF 4

APPROPRIATION TITLE: Construction, General – Locks and Dams (Navigation)

PROJECT: Melvin Price Lock and Dam, Illinois and Missouri (Continuing)

LOCATION: Melvin Price Lock and Dam is located in Madison County, Illinois, and St. Charles County, Missouri, in the vicinity of Alton, Illinois, at approximately mile 200.8 above the mouth of the Ohio River.

DESCRIPTION: The project includes one 1,200-foot lock; one 600-foot lock (see Other Information); a gated dam with 9 tainter gates, an overflow dike; removal of most of the existing structure; relocation/abandonment of the Burlington-Northern Railroad bridge and a visitors center. Mitigation land was provided to compensate for wildlife losses due to creation of a new pool for the two-mile distance downstream of the existing structure. Recreation facilities will be developed with the city of Alton, Illinois, consistent with the Water Resources Development Acts of 1986, 1990, 1992, and 1996. The project is part of the Upper Mississippi River Navigation System. All work is programmed.

AUTHORIZATION: Internal Revenue Code of 1954, Title I – Replacement of Locks and Dam 26; Water Resources Development Acts of 1986, 1990, 1992, and 1996.

REMAINING BENEFIT-REMAINING COST RATIO: The remaining benefit-remaining cost ratio is not applicable since the project is nearing completion.

TOTAL BENEFIT-COST RATIO: 2.1 to 1 at 6 7/8 percent.

INITIAL BENEFIT-COST RATIO: 1.6 to 1 at 6 7/8 percent (FY 1974).

BASIS OF BENEFIT-COST RATIO: Benefits are based on Supplement No. 2 to Design Memorandum No. 2, approved on 31 August 1979 at October 1978 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$740,636,000	
Estimated Non-Federal Cost		7,425,000	
Cash Contribution	$7,425,000		
Other	0		
Total Estimated Project Cost		$748,061,000	
Allocations to 30 September 2000		$730,151,000	
Conference Allowance for FY 2001		1,400,000	
Allocation for FY 2001		1,173,000 [1]	
Allocations through FY 2001		731,324,000	99
Allocation Requested for FY 2002		500,000	99
Programmed Balance to Complete after FY 2002		$8,812,000	
Unprogrammed Balance to Complete after FY 2002		0	

STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	99	Being determined
Lock and Dam	99	Dec 1994
Open to Navigation	100	Feb 1990

PHYSICAL DATA

Locks: One – 1,200 feet x 110 feet
One – 600 feet x 110 feet (see Other Information)
Dam: Non-navigable 9 tainter gates
Overflow Dike: Earth Embankment, 2000 feet
Spur Dike: Earth Embankment, 2.4 miles
Relocations:
Roads ($2,233,000)
Railroad ($13,933,000)
Utilities ($15,959,000)
Pumping Plant: One – 225 cubic feet per second
Lands and Damages:
Acres – 4,286; Type – Predominantly crop, brush, and timberland and some commercial, recreational, and industrial land and improvements fronting the river.
Improvements – Industrial, commercial, and recreation buildings.

[1] Reflects $224,000 reduction assigned as savings and slippage and $3,000 rescinded from the project in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The poor physical condition of the old Locks and Dam No. 26 and the inability of the locks to handle current and projected traffic without costly delays made replacement imperative. Both the dam and locks were set on piles, which were driven into the riverbed sands and were not supported by bedrock. The structure, which was placed in operation in 1938, had a history of excessive deflections, settlements, and loss of foundation material. Remedial measures were undertaken to correct deficiencies, but permanent repair of the old structure was impractical because of engineering and cost considerations. The average annual waterborne commerce tonnage (1991-2000) was 74.2 million tons valued at approximately $10 billion. Grains, chemicals, petroleum, and coal account for 90 percent of this traffic. Because of the small size of the locks, multiple lockages were required to pass a complete tow measuring 1,200 feet in length. The average delay to tows at the old Locks No. 26 was approximately 10.5 hours. Based on the Master Plan Study (authorized by P.L. 95-502), a single lock 110 feet wide by 1,200 feet long would have an estimated capacity of 94 to 100 million tons per year. The length of 1,200 feet permits tows to lock through as a single unit, thus eliminating the delays from double locking and congestion. Future tow sizes are expected to remain at 110 feet wide by 1,200 feet long. Total transportation charges for commodity movements by inland water range between 40 and 60 percent lower than least cost alternative modes. More than 60 percent of traffic is grain, the bulk of which is for export. Gulf export grain now moves, depending on the origin and volume, at approximately $4.00 to $6.00 savings per ton. Average annual benefits are as follows:

Annual Benefits	Amount
Navigation	$82,678,000
Recreation	469,000
Total	$83,147,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue:	As-Built Drawings	20,000
	O&M Manuals	20,000
	Visitor Center Exhibits	345,000
Complete:	Esplanade Landscaping	10,000
Planning, Engineering, and Design		75,000
Supervision and Administration		30,000
	Total	$ 500,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, which are applicable to unstarted separable elements, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay one-half of the separable and joint costs allocated to recreational navigation, pay one-half of the separable cost of recreation facilities, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreation and recreational navigation facilities.	$7,425,000	$306,000
Total Non-Federal Costs	$7,425,000	$306,000

STATUS OF LOCAL COOPERATION: The Water Resources Development Act of 1990 contains provisions that allow the state of Illinois and the Corps to enter into a Project Cost-sharing Agreement (PCA) for the construction of riverfront recreation facilities. The Water Resources Development Act of 1992 amended the 1990 Act by allowing cost sharing with other non-Federal interests. Public Law 106-554 directs the Corps to enter into an agreement that allows the City of Alton, Illinois, to construct recreation facilities and the Corps to reimburse the city for 50 percent of the cost. Approximately $10 million in recreation facilities will be cost-shared. The city of Alton, Illinois, submitted a letter of intent dated 13 February 1991 for sharing the cost of developing recreation facilities along the riverfront at Alton, in the vicinity of the existing structure. A plan for recreational development will be prepared. Construction of the recreation facilities will be initiated when a PCA is executed.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $740,636,000 is a decrease of $64,000 from the latest estimate ($740,700,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ - 12,000
Design Changes	-328,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	276,000
Total	$ - 64,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 24 August 1976 and published in the Federal Register on 8 September 1976.

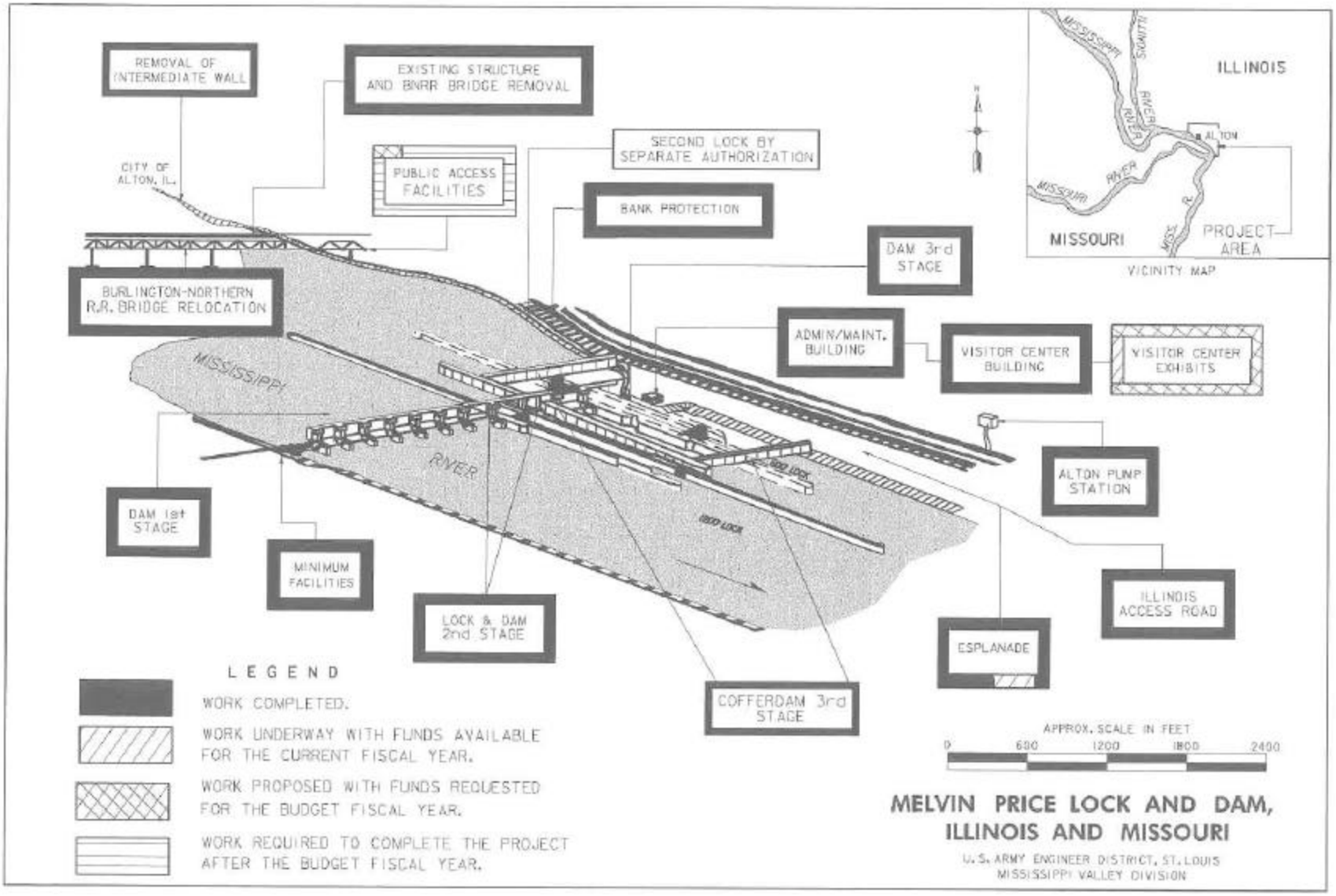
OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1970, and funds to initiate construction were appropriated in Fiscal Year 1974.

In accordance with Public Law 97-118, the project name changed from Lock and Dam 26 (Replacement) to Melvin Price Lock and Dam.

Dredge material disposal sites were used on Ellis Island during construction, but this phase is complete and no further construction dredging is expected.

The completed 600-foot second lock was funded as a separate project, cost shared with the Inland Waterways Trust Fund. The second lock was authorized by the Supplemental Appropriations Act of 1985 and the Water Resources Development Act of 1986.

Fish and Wildlife mitigation costs are $3,446,000.


REMOVAL OF INTERMEDIATE WALL
EXISTING STRUCTURE AND BNRR BRIDGE REMOVAL
SECOND LOCK BY SEPARATE AUTHORIZATION
PUBLIC ACCESS FACILITIES
BANK PROTECTION
CITY OF ALTON, IL.
DAM 3rd STAGE
BURLINGTON-NORTHERN R.R. BRIDGE RELOCATION
ADMIN/MAINT. BUILDING
VISITOR CENTER BUILDING
VISITOR CENTER EXHIBITS
MISSISSIPPI
RIVER
ALTON PUMP STATION
DAM 1st STAGE
MINIMUM FACILITIES
LOCK & DAM 2nd STAGE
ILLINOIS ACCESS ROAD
ESPLANADE
COFFERDAM 3rd STAGE
ILLINOIS
MISSOURI
ALTON
PROJECT AREA
VICINITY MAP
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
APPROX. SCALE IN FEET
0 600 1200 1800 2400
MELVIN PRICE LOCK AND DAM, ILLINOIS AND MISSOURI
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Inner Harbor Navigation Canal Lock, Louisiana (Continuing)

LOCATION: The project is located within the City of New Orleans, Louisiana, in Orleans Parish. It is a combined deep and shallow draft canal extending northward from the Mississippi River to Lake Pontchartrain.

DESCRIPTION: The plan of improvement consists of construction of a precast, floated-in, concrete lock; replacement of the St. Claude Avenue bridge with a new, low level double bascule bridge; construction of a temporary by-pass bridge at St. Claude Avenue; replacement of the center lift-span and raising of the towers on the Claiborne Avenue bridge; provisions for by-pass channels during construction; extension of the Mississippi River flood protection along the canal to the site of the new lock; and implementation of a community impact mitigation plan. All work is programmed.

AUTHORIZATION: River and Harbor Act of 1956, Water Resources Development Acts of 1976, 1986 and 1996.

REMAINING BENEFIT - REMAINING COST RATIO: 2.1 to 1 at 7-1/8 percent.

TOTAL BENEFIT - COST RATIO: 2.1 to 1 at 7-1/8 percent.

INITIAL BENEFIT - COST RATIO: 1.75 to 1 at 7-3/8 percent (FY 1961).

BASIS OF BENEFIT - COST RATIO: Benefits are from the Evaluation Report approved in February 1998 at October 1998 price levels.

SUMMARIZED FINANCIAL DATA

			STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CoE)		$652,000,000	Total Project	0	Being determined
General Appropriations	$ 363,800,000[1]				
Inland Waterways Trust Fund	288,200,000				
Estimated Federal Cost (USCG)		45,000			
Estimated Non-Federal Cost		63,000,000			
Cash Contribution	35,295,000				
Other	27,705,000[2]				
Total Estimated Project Cost		$715,045,000			

	GENERAL APPROPRIATIONS		INLAND WATERWAYS TRUST FUND	ACCUM. PCT. OF EST. FED. COST
	Deep Draft	Shallow Draft	Shallow Draft	
Allocations to 30 September 2000	0	26,985,000	10,795,000	
Conference Allowance for FY 2001	0	0	16,349,000	
Allocation for FY 2001	0	8,605,500	24,795,500[3]	
Allocations through FY 2001	0	35,590,500	35,590,500	11
Allocation Requested for FY 2002	0	5,000,000	5,000,000	13
Programmed Balance to Complete After FY 2002	75,600,000	247,609,500	247,609,500	
Unprogrammed Balance to Complete After FY 2002	0	0	0	

[1] Includes Federal Deep Draft Cost of $75,600,000 that are not cost shared with the Inland Waterways Trust Fund. Details are included in Supplement 1 to the Evaluation Report, approved by ASA (CW) September 2000.
[2] Non-compensable relocations that are the responsibility of the facility owners. Details are included in Supplement 1 to the Evaluation Report, approved by ASA (CW) September 2000.
[3] Reflects $2,616,000 reduction assigned as savings and slippage, $19,700,000 anticipated reprogrammed to the project, and $32,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

PHYSICAL DATA

Locks:
New Lock, 110 feet wide by 36 feet deep by 1,200 feet long
Levees and Floodwalls: 6 miles

Relocations:
Low Level Bridge, St. Claude Avenue
Semi-High Level Bridge, Claiborne Avenue

JUSTIFICATION: The existing Inner Harbor Navigation Canal Lock passes barge traffic between the Mississippi River and the Gulf Intracoastal Waterway at New Orleans and is a vital link in the Gulf Intracoastal Waterway system. The lock also is the connecting link for ship traffic between the Mississippi River-Gulf Outlet and the Mississippi River at New Orleans. Delays to the navigation traffic average 11 hours, with 24-36 hour delays common. The average annual tonnage shipped thru the lock by the barge traffic the last 10 years is about 24,000,000 tons. Coal, petroleum products and crude petroleum account for about 2/3 of the tonnage. Other major commodities include metallic ores, industrial chemicals and non-metallic minerals. The number of ships locked from 1970 through 1995 averaged about 197 per year. This is a reduction in ship lockage since 1961, and is due in part to the development of the Mississippi River-Gulf Outlet channel and the inadequacy of the Inner Harbor Navigation Canal Lock for ship traffic. Studies indicate that, with a new lock, barge traffic would generally be expected to increase to about 40,000,000 tons by 2035, with minimal delays, and that the number of ship lockages by 2035 could be approximately 500 per year. The maximum size ship that could use the new lock is a 68,000,000 DWT Dry Bulk vessel and a 46,000,000 DWT container vessel. Average annual benefits are as follows:

Annual Benefits	Amount
Navigation	$ 88,466,000
Vehicular	6,547,000
Advanced Closure Navigation Losses Prevented	10,640,000
Savings to Existing Project	4,053,000
Total	$109,706,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue:	
Community Impact Mitigation Plan	$ 1,735,000
Florida Ave Siphon Relocation	2,165,000
Complete:	
Westbank Levees, PH I	600,000
Demolish Galvez St. Wharf	1,700,000
Planning, Engineering and Design	3,000,000
Supervision and Administration	800,000
Total	$10,000,000

NON-FEDERAL COST: The costs of the new lock were apportioned between general cargo navigation (deep draft) and inland navigation (shallow draft). Those costs assigned to inland navigation (22 feet deep x 110 feet wide x 500 feet long), will be funded 50 percent from the Inland Waterways Trust Fund and 50 percent from the general fund of the U.S. Treasury. The costs of all lands, easements, rights-of-way, and dredged material disposal areas and the costs for utility relocations are included in the inland navigation Plan. Only the compensable relocations costs will be cost-shared 50/50. The non-compensable relocations will be the responsibility of the respective non-Federal owners. Those costs assigned to general cargo navigation will be cost-shared in accordance with Section 101 of the Water Resources Development Act of 1986. Details of this cost-sharing are included in Supplement No. 1 to the Evaluation Report approved by the ASA (CW) in September 2000.

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the following requirements:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Modify or relocate utilities and facilities (except railroad bridges) where necessary for construction of the project. (Utility Owners)	$ 27,705,000	$
Non-Federal cash requirement based on the incremental cost increase between the Shallow Draft Plan and the Deep Draft Plan.	35,295,000	2,000
Total Non-Federal Costs	$ 63,000,000	$ 2,000

STATUS OF LOCAL COOPERATION: The Port of New Orleans by letter dated 14 April 1997 expressed their intent to support the project and furnished their preliminary financing plan to provide their local share. Coordination of a Project Cooperation of Agreement (PCA) is ongoing. Execution of the PCA is expected by July 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $652,045,000 is an increase of $77,000,000 from the last estimate ($575,045,000) presented to Congress (FY 2001). This change includes the following item:

ITEM	AMOUNT
Evaluation Report Supplement No. 1	$ 44,550,000
Price Escalation on Construction Features	32,450,000
Total	$ 77,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement for the project was submitted to the Environmental Protection Agency (EPA) in February 1998. The Record of Decision was issued in December 1998.

OTHER INFORMATION: Funds to initiate engineering and design were appropriated in Fiscal Year 1957. Funds to initiate construction were appropriated in Fiscal Year 1999.

The existing lock was completed in 1923 by non-Federal interests, and had been leased by the Federal Government since 1944. On 1 July 1986, the lock, adjacent land, and facilities were purchased from the Board of Commissioners of the Port of New Orleans for $3,800,000. By purchasing the lock, the Corps received fee title to the lock and appurtenances with operation and maintenance responsibility for the St. Claude and Florida Avenue bridges transferring to the Board of Commissioners of the Port of New Orleans.

Based on Congressional committee guidance in the Fiscal Year 1991 Energy and Water Development Appropriations Bill, an Open Planning Process was adopted in an attempt to build consensus among the major stakeholders for siting the shiplock at the Inner Harbor Navigation Canal (Industrial Canal) site. The Corps and the Port of New Orleans were directed to ". . . develop a comprehensive plan to identify and mitigate to the maximum extent practicable, any adverse social and cultural impacts of the project." The plan will include ". . . measures to provide adequate housing, street circulation and enhanced neighborhood amenities to insure the communities adjacent to the project remain as complete, livable neighborhoods during and after construction of the project." The legislation specifically directed the Corps to strictly follow Federal historic preservation policies in evaluating the impact of lock replacement. Also, full compliance with the provisions of the 1986 Water Resources Development Act, which requires "full participation of members of minority groups living in the affected areas" in any work related to the replacement of the lock. Finally, the legislation directed the Corps to give "maximum consideration to lock replacement alternatives which minimize residential and business disruption while meeting the goal of improving waterborne commerce. The recommended plan for the lock replacement has complied with all of these requirements. Neighborhood groups, navigation interests, affected businesses, local, governmental officials, and the Port of New Orleans have comprised various committees that have discussed all the major aspects of the various alternatives studied at this site. The Corps of Engineers and the Port of New Orleans have provided the engineering, economic, and social analyses to these committees for their deliberations.

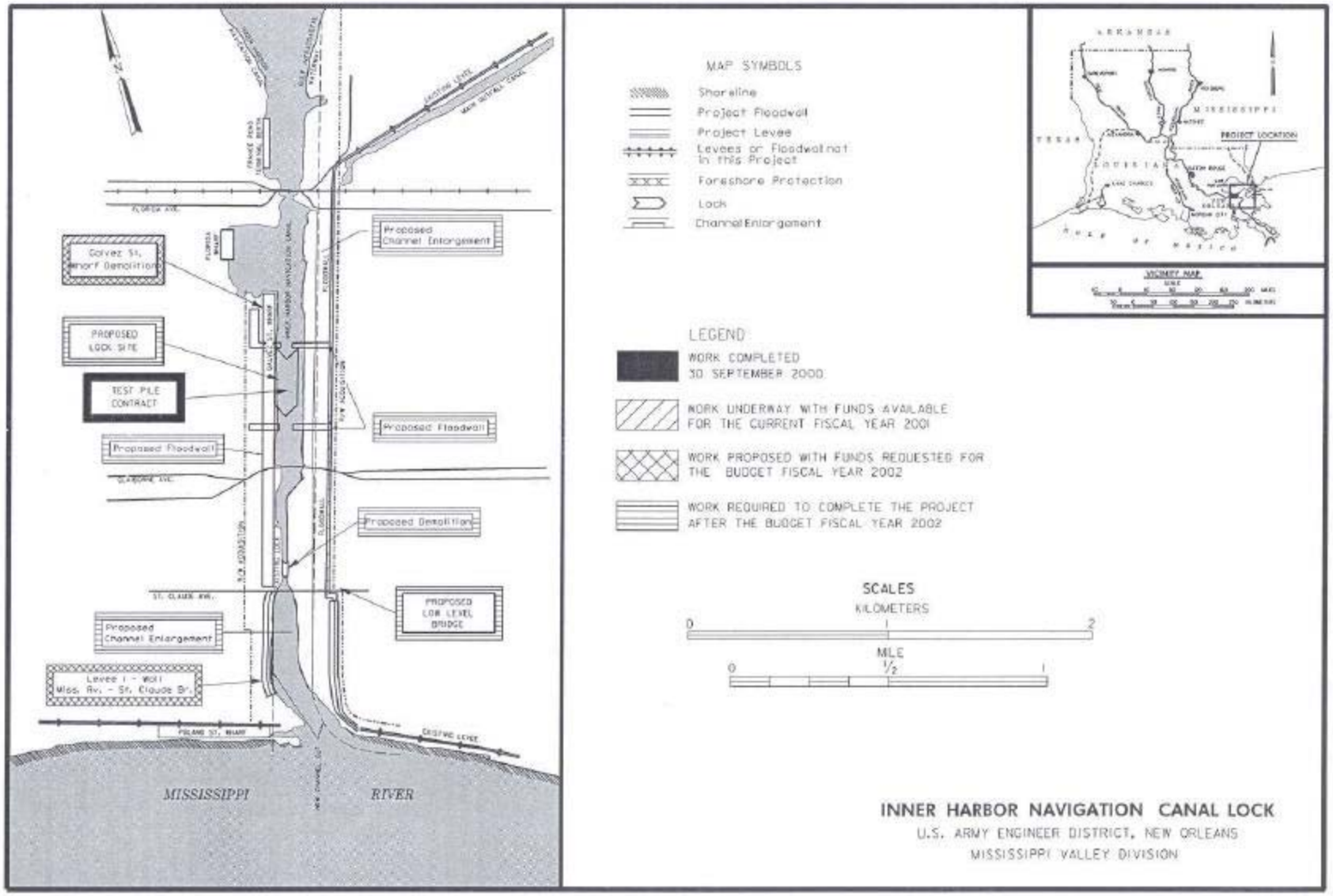
The final Evaluation Report, based on the Open Planning Process, was approved by HQUSACE in February 1998. The final Evaluation Report recommended that a deep draft lock, 36 feet deep by 110 feet wide by 1,200 feet long be constructed at the Industrial Canal site north of the existing lock using a prefabricated float-in construction method that would require no relocation of residents and that a comprehensive community impact mitigation plan ($35 million) be implemented in conjunction with the project. The mitigation plan was authorized by the Water Resources Development Act of 1996. In an effort to continue to involve the local stakeholders in the implementation and formulation of the impact mitigation plan, a community based committee was formed. The Corps has entered into a Partnering Agreement with the committee for implementation of the mitigation plan throughout the construction period.

On 30 September 1999, a contract was awarded to a team headed by Gregory C. Rigamer & Associates, Inc., to assist in the establishment of a Community-Based Mitigation Committee (CBMC) and the development of the Partnering Agreement. Upon establishment of the CBMC (which includes representatives from local neighborhood business and religious organizations and local residents), the contractor has led the development of a Needs Assessment and the first 3 year-Mitigation Plan. A contract has been awarded to Xavier University for the initial job training contract as the first part of the mitigation plan. Only residents in the affected communities adjacent to the IHNC are presently being trained. Additional measures recommended by the CBMC will be initiated in FY 2001.

To further comply with the provision in the 1986 WRDA of "full participation of members of minority groups living in the affected areas", construction contracts have included Labor Preference Clauses that require 10 percent of the labor force be obtained from the communities surrounding the IHNC. Also, the District has worked with the local Small Business Administration Office and minority contractor groups to assist them in competing for some of the construction work to be awarded on this project.

The existing Florida Avenue bridge (vehicular and railroad) has been assumed in our studies to be replaced by others. The vehicular bridge is scheduled to be replaced by the State of Louisiana. Efforts are underway to coordinate with the City of New Orleans and St. Bernard Parish for construction of a new bridge (not necessarily a high-rise) at Florida Avenue. The railroad bridge has been approved for replacement under Truman Hobbs authority. The Coast Guard recommended that the existing railroad bridge is a hazard to navigation, thereby justifying the use of Truman Hobbs. The Port of New Orleans is responsible for the design and replacement of the railroad bridge, and construction has been initiated.

The Senate Report accompanying the Fiscal Year 1994 Energy and Water Development Appropriations Act included language recommending examination of all alternatives for removing the siphon near Florida Avenue bridge, the convening of all interests to determine the best course of action and preparation of a report on this matter. The Evaluation Report assumes that the siphon will be removed prior to initiating construction of this project, at no cost to the Federal Government. Section 305 of H.R. 4422, the House version of the Fiscal Year 1995 Coast Guard Authorization Bill, states that the removal of the siphon, an appurtenant structure to the bridge, will be accomplished under the provisions of the Truman Hobbs Act.


MAP SYMBOLS
Shoreline
Project Floodwall
Project Levee
Levees or Floodwall not in this Project
Foreshore Protection
Lock
Channel Enlargement
PROJECT LOCATION
VICINITY MAP
LEGEND
WORK COMPLETED 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
SCALES
KILOMETERS
MILE
Proposed Channel Enlargement
Galvez St. Wharf Demolition
PROPOSED LOCK SITE
TEST PILE CONTRACT
Proposed Floodwall
Proposed Floodwall
Proposed Demolition
PROPOSED LOW LEVEL BRIDGE
Proposed Channel Enlargement
Levee I - Wall Miss. Riv. - St. Claude Br.
MISSISSIPPI
RIVER
INNER HARBOR NAVIGATION CANAL LOCK
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General - Locks and Dams (Navigation)

PROJECT: J. Bennett Johnston Waterway - Mississippi River to Shreveport, Louisiana (Continuing)

LOCATION: The project is located in central and northwest Louisiana and provides a navigation route from the Mississippi River at its juncture with Old River via Old and Red Rivers to Shreveport, Louisiana. The effected parishes and counties for this project include (Louisiana) Caddo, Bossier, Webster, De Soto, Red River, Bienville, Lincoln, Winn, Natchitoches, La Salle, Grant, Rapides, Avoyelles, Concordia; and (Arkansas) Hempstead, Miller, Nevada, Lafayette, and Columbia.

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, Louisiana. Five locks with dimensions of 84 by 705 by 14 feet and adjacent dams provide a lift of about 141 feet. The project also provides for realigning the channel by means of dredging, cutoffs, and training works and for stabilizing its banks by means of revetments, dikes, and other methods. Recreation facilities and fish and wildlife development are also an integral part of the project. The major unprogrammed work includes recreation sites, and acquisition of a portion of mitigation lands. This project is part of the J. Bennett Johnston Waterway, Louisiana, Texas, Arkansas, and Oklahoma, which also includes the Shreveport, to Daingerfield, Texas (navigation), Shreveport, Louisiana, to Index, Arkansas (bank stabilization), and Index, Arkansas, to Denison Dam (bank stabilization) reaches.

AUTHORIZATION: River and Harbor Act of 1968, Water Resources Development Act of 1976, Supplemental Appropriations Act of 1984, Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996, and 2000 and Energy and Water Development Appropriations Act of 1994.

REMAINING BENEFIT - REMAINING COST RATIO: 8.3 to 1 at 3-1/4 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 3-1/4 percent.

INITIAL BENEFIT-COST RATIO: 1.2 to 1 at 3-1/4 percent (FY 1973).

BASIS OF BENEFIT-COST RATIO: Benefits are from the General Reevaluation Report and Final Supplement No. 2 to the Environmental Impact Statement, at 1982 price levels, approved 4 January 1984. Costs for current analysis are based on October 1999 costs deflated to October 1982 price levels.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost (COE)			$1,895,807,000
Programmed Construction		$1,845,369,000	
Unprogrammed Construction		50,438,000	
Estimated Apprn Requirements (U.S. Coast Guard)			553,000
Programmed Construction		553,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			91,304,000
Programmed Construction		45,811,000	
Cash Contributions	$ 9,824,000		
Other Costs	35,987,000		
Unprogrammed Construction		45,493,000	
Cash Contributions	26,070,000		
Other Costs	19,423,000		

STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULED
Entire Project	90	Indefinite
Open to 9-Foot Navigation		Dec 87
Lindy Boggs Lock & Dam		Dec 87
John H. Overton Lock and Dam		Dec 87
Lock and Dam No. 3		Dec 91 1/
Russell B. Long Lock and Dam		Dec 94
Joe D. Waggonner, Jr., Lock and Dam		Dec 94

PHYSICAL DATA

Lands and Damages: 26,000 acres, mitigation of wildlife losses above mile 104
Channels and Canals: Channel 9 feet deep, 200 feet wide, and 236 miles long from Old River to Shreveport, Louisiana. Total length of bank protection - 273 miles
Locks: Number - 5; Size - 84 by 705 feet
Dams: Number - 5; Type - Tainter Gated
Relocations: Roads (Modify one bridge)
Railroads (Replace one and modify one bridge)

1/ Initial interim pool impounded.

SUMMARIZED FINANCIAL DATA (Continued)

			ACCUM PCT OF EST FED COST
Total Estimated Programmed Construction Cost	$1,891,733,000		
Total Estimated Unprogrammed Construction Cost	95,931,000		
Total Estimated Project Cost	1,987,664,000	1/	
Allocations to 30 September 2000	1,715,202,000		
Conference Allowance for FY 2001	21,040,000		
Allocations for FY 2001	16,970,000	2/	
Allocations through FY 2001	1,732,172,000	1/	91
Allocation Requested for FY 2002	16,555,000		92
Programmed Balance to Complete After FY 2002	96,642,000		
Unprogrammed Balance to Complete After FY 2002	50,438,000		

1/ Includes $26,654,000 for John H. Overton Lock and Dam and $21,653,000 for Red River Emergency Bank Protection for construction work.

2/ Reflects $3,366,000 reduction assigned as savings and slippage; $663,000 reprogrammed from the project and $41,000 rescinded in accordance with Consolidated Appropriations Act, 2001.

JUSTIFICATION: The Red River is a very erratic river, subject to wide fluctuations in stage and meandering because of the erodible soils. For navigation to become a reality on Red River, a system of dependable pools and a properly aligned channel are necessary. The pools are provided by locks and dams and the proper alignment is provided by bank and channel stabilization works. These works preserve lands and improvements along the navigation route. Dredged material disposal sites for construction and maintenance are within the limits of the river bank or areas furnished by local interests at no cost to the United States. With preproject open river conditions, the controlling depths for navigation from January to July are 9 feet from the Mississippi River to the mouth of the Black River, 6 feet from the mouth of the Black River to Alexandria, Louisiana, and 5 feet to Shreveport, Louisiana. During the remainder of the year, controlling depths are generally about 9 feet from the Mississippi River to the mouth of the Black River, about 4 feet from there to Alexandria, and 1 to 2 feet to Shreveport. On 31 December 1994, a 9-foot-deep by 200-foot-wide navigation channel was opened from the Mississippi River to Shreveport. The channel provides dependable 9-foot navigation depths year-round.

Navigation from the Mississippi River to Shreveport will provide an artery for low-cost transportation which, will stimulate economic growth of the region. Estimated savings are based on an average annual movement of 7,845,000 tons. 1998 waterborne commerce tonnage on the waterway was 3,749,000 tons including all commodities that transited any portion of the system. Commodities to be carried over the waterway include iron and steel products and pipe, industrial chemicals, paper and allied paper products, petroleum and petroleum products, other metals and ores, sulphur, agricultural chemicals, and grain. The public will realize an average annual savings of $68,831,000 which will result from reduced transportation costs. Several local entities are actively involved in port development on the waterway. The city of Alexandria has constructed port facilities in Pool 2 for use by industry. The Natchitoches Parish Port in Pool 3 was opened in 1996, and a wood chip mill has been constructed at the port. The Caddo-Bossier Port in Pool 5 was officially opened in April 1997 with 209,000 tons shipped that year. Commodity movements through the port increased to 375,000 tons in 1997, and is steadily increasing. Red River Parish has also initiated actions to develop a port site in Pool 4. These ports will be able to accommodate tows or barges of various sizes. The usable lock dimensions were designed for a configuration of six barges with individual dimensions of 35 by 195 feet and a towboat. Larger grain and petroleum barges can also be expected to call at the ports. The project is credited with benefits derived from transportation savings from use of the waterway, flood control, damages prevented by bank stabilization, security against levee crevasses, fish and wildlife, recreation, area redevelopment, reduced maintenance on existing revetments, reduced sedimentation, irrigation, reduced costs of municipal and industrial water supply, and reduced pumping costs.

The average annual benefits are as follows:

Annual Benefits	Amount
Navigation	$ 68,831,000
Flood Control	2,037,000
Bank Stabilization	16,602,000
Fish and Wildlife	460,000
Recreation	4,435,000
Area Redevelopment	14,808,000
Other:	
Irrigation and reduced costs of municipal and industrial water supply	53,000
Total Annual Benefits	$107,226,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Pools 1-5	
Complete:	
Bonnie Reinforcement	$ 661,000
Recreation Facilities at Locks & Dams 3,4,5	235,000
Coushatta/Stoner Comfort Stations	56,000
Grand Ecore Visitor Center	2,000,000
Subtotal	$ 2,952,000
Continue:	
Below Lindy C. Boggs L&D Reinforcements	1,114,000
Grand Bend Capout	2,905,000
Pool 3 Reinforcements	1,534,000
Coushatta Capout & Dikes	1,000,000
Shreveport Visitor Center	2,500,000
Planning, Engineering and Design	2,500,000
Supervision and Administration	1,300,000
Subtotal	$12,853,000
Mitigation	
Continue:	
Loggy Bayou	$ 750,000
Subtotal	750,000
GRAND TOTAL	$16,555,000

NON-FEDERAL COST: With the exception of the Louisiana-Arkansas Railroad Bridge Relocation and the mitigation element, local interests are required to provide all lands, easements, and rights-of-way, including a proportionate share of the cost of the bridge relocations over existing channels in accordance with the principles of Section 6 of the Bridge Alteration Act (Truman-Hobbs) of 21 June 1940, as amended by the Act of 16 July 1952, 25 percent of the cost of necessary retaining dikes for dredged materials and 50 percent of the total cost of recreation facilities. Non-Federal costs associated with the total project are broken down as follows.

The non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas	$ 36,459,000	$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	11,096,000	211,700
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreation facilities	41,217,000	1,448,000
Pay 6 percent of the first costs allocated to fish and wildlife and pay 6 percent of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities	527,000 1/	332,800 2/
Pay 25 percent of the first cost allocated to retention dikes required for construction and maintenance dredging	2,005,000	31,200
Replacement costs		302,900
Total Non-Federal Costs	$ 91,304,000	$ 2,326,600

1/ Since the local sponsor will assume all operation and maintenance costs and this cost will exceed the 6 percent local share, there will be no local requirement toward implementation costs for Loggy Bayou increment. Implementation costs shown are for the Bayou Bodcau increment.

2/ 100 percent of annual management costs for Loggy Bayou and Bayou Bodcau increments.

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction. Non-Federal cost associated with the scheduled portion of the project are broken down as follows:

Lands and Damages	$ 18,999,000
Utility Relocations	8,101,000
Recreation (Other)	8,887,000
Cash Contribution:	9,824,000
Recreation Facilities	(6,312,000)
Bridge Relocations	(1,006,000)
Retaining Dikes	(1,973,000)
Mitigation	(533,000)
Total	$45,811,000

STATUS OF LOCAL COOPERATION: Formal assurances of local cooperation were furnished by the Red River Waterway Commission on 26 February 1969 and accepted on behalf of the United States on 15 April 1969. That agency was formed expressly to provide the local cooperation required for the project and has levied a 2-mill assessment to fulfill its obligations. Amended assurances covering the provisions of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, and the specific written agreement requirements of Section 221 of the Flood Control Act of 1970, Public Law 91-611, were executed by the Red River Waterway Commission on 23 May 1973 and were accepted on behalf of the United States on 14 November 1973. A cost sharing agreement covering nine recreation sites in Pools 1 and 2 was approved by the Deputy Chief of Engineers on 23 July 1985. A Memorandum of Understanding between the Corps and the local sponsor for development of these nine sites was executed in January 1986. A supplement to this cost-sharing agreement was executed in the last quarter of FY 1994 to cover the advance construction of three boat ramps and ancillary facilities in Pools 4 and 5 in FY 1995. In the Conference Report that accompanied the Energy and Water Development Appropriations Act of 1993, Congress directed the Corps of Engineers to prepare a supplement to the recreation master plan to serve as the project document to support the contract for recreation development in Pools 3 to 5. The Project Cooperation Agreement for recreation developments in Pools 3 to 5 was executed in April 2000.

The Red River Waterway Commission agreed by letter dated 6 September 1983 to fulfill all responsibilities of the local sponsor relative to the purchase of wildlife mitigation lands. The Louisiana Department of Wildlife and Fisheries, by letter dated 22 July 1983, agreed to assume operation and maintenance responsibilities for acquired wildlife mitigation lands. Updated letters of agreement covering the mitigation plan as presently conceived (i.e., acquisition of up to 5,000 acres in the vicinity of Loggy Bayou) were furnished by the Red River Waterway Commission and the Louisiana Department of Wildlife and Fisheries on 13 August 1990 and 17 August 1990, respectively. The Local Cooperation Agreement between the Federal Government and the State of Louisiana for the acquisition of up to 5,000 acres of mitigation lands in the vicinity of Stumpy Lake/Swan Lake/Loggy Bayou Wildlife Management Area was executed by the Red River Waterway Commission in May 1993 and by the Assistant Secretary of the Army in June 1993.

The Red River Waterway Commission furnished a letter of agreement to support the Bayou Bodcau mitigation increment subject to certain conditions on 9 September 1992. All conditions with the exception of one had been resolved prior to passage of the Energy and Water Development Appropriations Act of 1994. Passage of the Act resolved this last condition, which involves how the costs for the Federal share of operation and maintenance undertaken by the Red River Waterway Commission will be treated by authorizing annual reimbursement in lieu of crediting. All Red River Waterway Commission conditions were satisfactorily resolved, and the Project Cooperation Agreement covering the acquisition of mitigation lands in the vicinity of the Bayou Bodcau Wildlife Management Area was executed in June 1996.

The Red River Waterway Commission furnished a letter of agreement dated 10 October 1997 supporting additional mitigation lands in Red River and Caddo Parishes that are to be considered adjacent to the Loggy Bayou Wildlife Management Area. These new areas were directed in the Water Resources Development Act of 1996. A report detailing a plan of action to acquire these lands was processed as directed by the legislation. Amendment No. 1 to the June 1993 Loggy Bayou Area Local Cooperation Agreement covering the initial acquisition effort in Caddo Parish was executed by the Red River Waterway Commission and the Assistant Secretary of the Army in October 1999.

Pool 3 will require new structural features at Nantachie Lake so that the lake can continue to be drawn down subsequent to pool impoundment. As a result, the Red River Waterway Commission was requested to agree to accept operation and maintenance responsibilities for the new Nantachie Lake drawdown structure and to agree to provide amended assurances of local cooperation to this effect in December 1993. At the same time, they were also requested to agree to accept responsibility for related modification or replacement of bayou crossings downstream of Nantachie Lake. The sponsor has not yet agreed to accept responsibility related to the bayou crossings. Review and sponsor coordination of agency responsibilities associated with this work continues.

The Red River Waterway Commission is providing its share of the project first costs by furnishing the necessary lands, easements, and rights-of-way, performing utility relocations as needed, and providing cash contributions for recreation facilities, bridge relocations, and retaining dikes. They will contribute their share of retention dike construction for maintenance dredging by cash contribution and they will provide the lands, easements, and rights-of-way for these dikes.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate (Corps of Engineers) of $1,895,807,000 is an increase of $2,156,000 from the latest estimate ($1,893,651,000) presented to Congress (FY 2001). This change includes the following item.

Item	Amount
Price Escalation on Construction Features	$ 2,156,000
Total	$ 2,156,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final statement was filed with the Council on Environmental Quality on 11 May 1973. The Environmental Impact Statement is included in the project "Red River Waterway." Supplement No. 1 to the Environmental Impact Statement was prepared for the Mississippi River to Shreveport reach of the J. Bennett Johnston Waterway due to a change in project alignment from the authorizing document, and to include updated environmental information due to a reanalysis and to include results of the ground-water studies. The final Supplement No. 1 was filed with the Council on Environmental Quality on 18 February 1977, and published in the Federal Register on 25 February 1977. A third Environmental Impact Statement (Supplement No. 2) was submitted to the Environmental Protection Agency in final form on 10 November 1983, and the record of decision was signed by the Division Engineer on 4 January 1984. This supplement was necessary to document the expanding base of data and design information being developed and accompanied the General Reevaluation Report.

An Environmental Assessment was prepared for Pool No. 2 to present the results of investigations of the impacts of the 58- and 64-foot elevations. The Environmental Assessment resulted in a Finding of No Significant Impact which allowed a design change from 58- to 64-foot pool elevations. Following review by the public, the Finding of No Significant Impact was signed on 21 April 1982.

An Environmental Assessment of the Loggy Bayou Area mitigation increment has been performed. This area was not included in the original mitigation report. The Environmental Assessment was required to satisfy the National Environmental Policy Act. The Environmental Assessment resulted in a Finding of No Significant Impact, which was signed 11 January 1993. Environmental Assessment's are required to present the impacts associated with the construction of riverside levee protection berms in Pools 3 and 5. The berms are necessary to ensure the integrity of the existing flood control levee system. The Environmental Assessment for the berms in Pool 3 resulted in a Finding of No Significant Impact, which was signed on 16 July 1992. The Environmental Assessment for the berms in Pool 5 also resulted in a Finding of No Significant Impact which was signed on 24 May 1993.

Environmental Assessments are also required for the Bayou Bodcau mitigation increment and the Nantachie Lake drawdown structure to satisfy National Environmental Policy Act requirements. The Bayou Bodcau mitigation Environmental Assessment resulted in a Finding of No Significant Impact that was signed on 28 April 1995, and the Nantachie Lake drawdown structure Environmental Assessment was completed in FY 1996, also resulting in a Finding of No Significant Impact. An Environmental Assessment for the mitigation lands to be acquired in Caddo and Red River Parishes will be done at the appropriate time. An assessment of the initial tract in Caddo Parish has been completed, and resulted in a Finding of No Significant Impact that was signed on 23 September 1999.

A Final Environmental Assessment has been prepared covering instream disposal of maintenance dredge material in Pools 3, 4, and 5 in lieu of disposal in contained upland areas. A Finding of No Significant Impact was signed on 19 March 1996.

A Final Environmental Assessment has been prepared covering maintenance dredging of the oxbow lakes designated for preservation in project documentation. The dredging consists of maintaining a 5-foot-deep by 20-foot-wide connection from the river into the oxbow lakes in order to achieve all project benefits. The dredged material will be disposed of instream. A Finding of No Significant Impact was signed 18 November 1997.

An Environmental Assessment and Finding of No Significant Impact are included in Supplement No. 2 to the Recreation Master Plan which presents the revised plan for recreation development in Pools 3, 4, and 5. Supplement No. 2 was approved by the Mississippi River Commission on 1 May 1998. The Finding of No Significant Impact was signed on 6 October 1997. An Environmental Assessment was performed in FY 2000 for the Hampton's Lake Recreation Area that was added to the Pools 3 to 5 Master Plan by August 1999, Supplement No. 3. A Finding of No Significant Impact was signed on 24 May 2000.

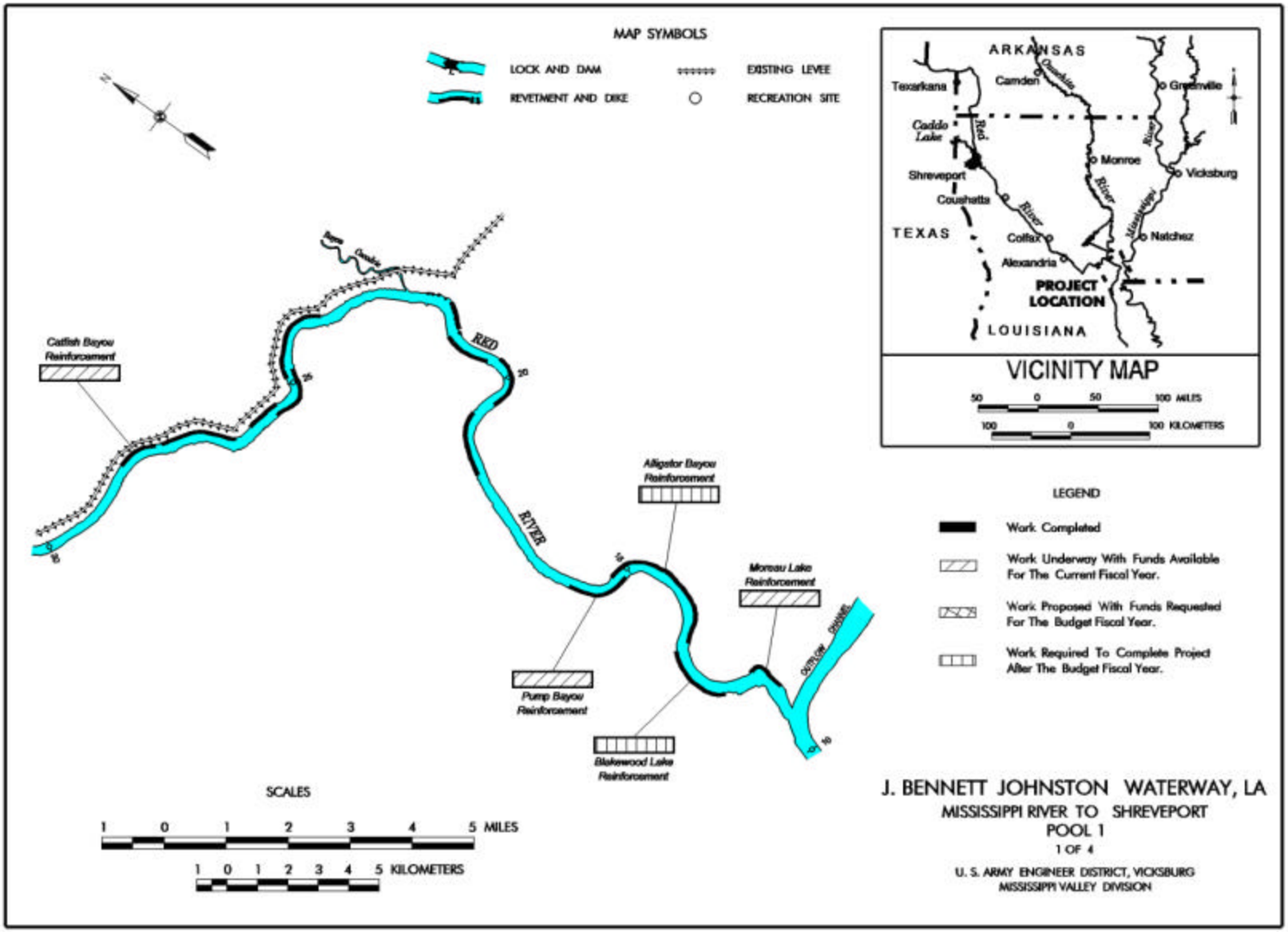
OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1971 and allotted in FY 1972. Funds to initiate construction were appropriated in FY 1973.

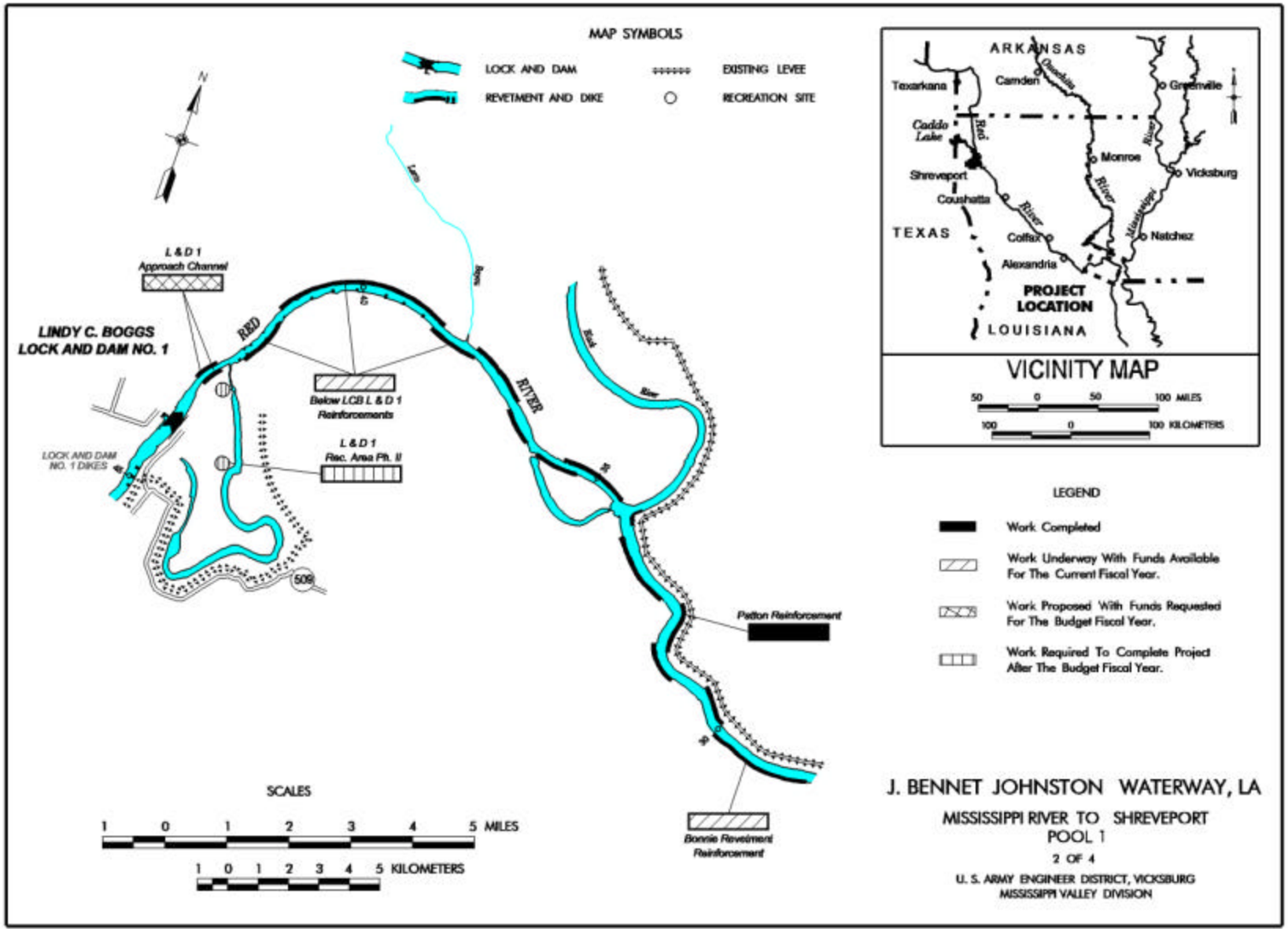
The Energy and Water Development Appropriations Act of 1996 authorized a Regional Visitors Center in the vicinity of Shreveport. The Energy and Water Development Appropriations Act of 1997 provided $3,000,000 and directions to initiate design and construction of the Regional Visitors Center in FY 1997. The 1997 Appropriations Act also provided funds to initiate design of the previously authorized Project Visitors Center at Grand Ecore. Design for both of the Visitors Centers has recently been completed, but delays have been experienced as a result of site availability issues. Design, construction, and operation and maintenance of the Visitors Centers are to be at 100 percent Federal expense. The FY 2001 Appropriations Act (P. L. 106-377) directs the use of available Construction, General funds, in addition to the funds provided by the FY 1997 Appropriations Act, to complete design and construction of the Regional Visitor Center at an estimated cost of $6,000,000.

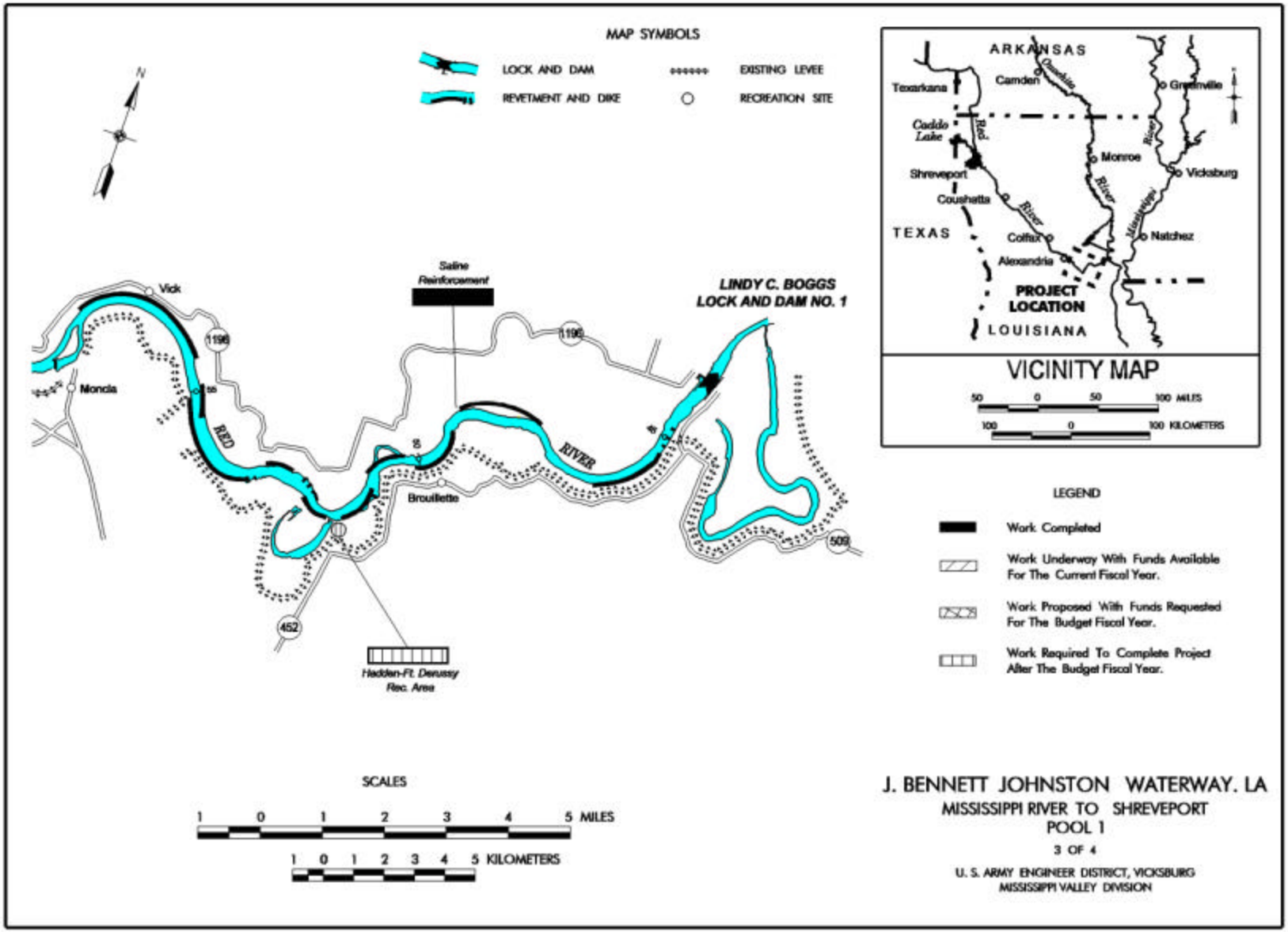
The Draft Master Plan Supplement No. 3 covering adjustments to cost-shared recreation facilities in Pools 3, 4, and 5 was approved by the District Commander in September 1999. The Project Cooperation Agreement covering the same recreation facilities presented in Supplement Nos. 2 and 3 was executed in April 2000.

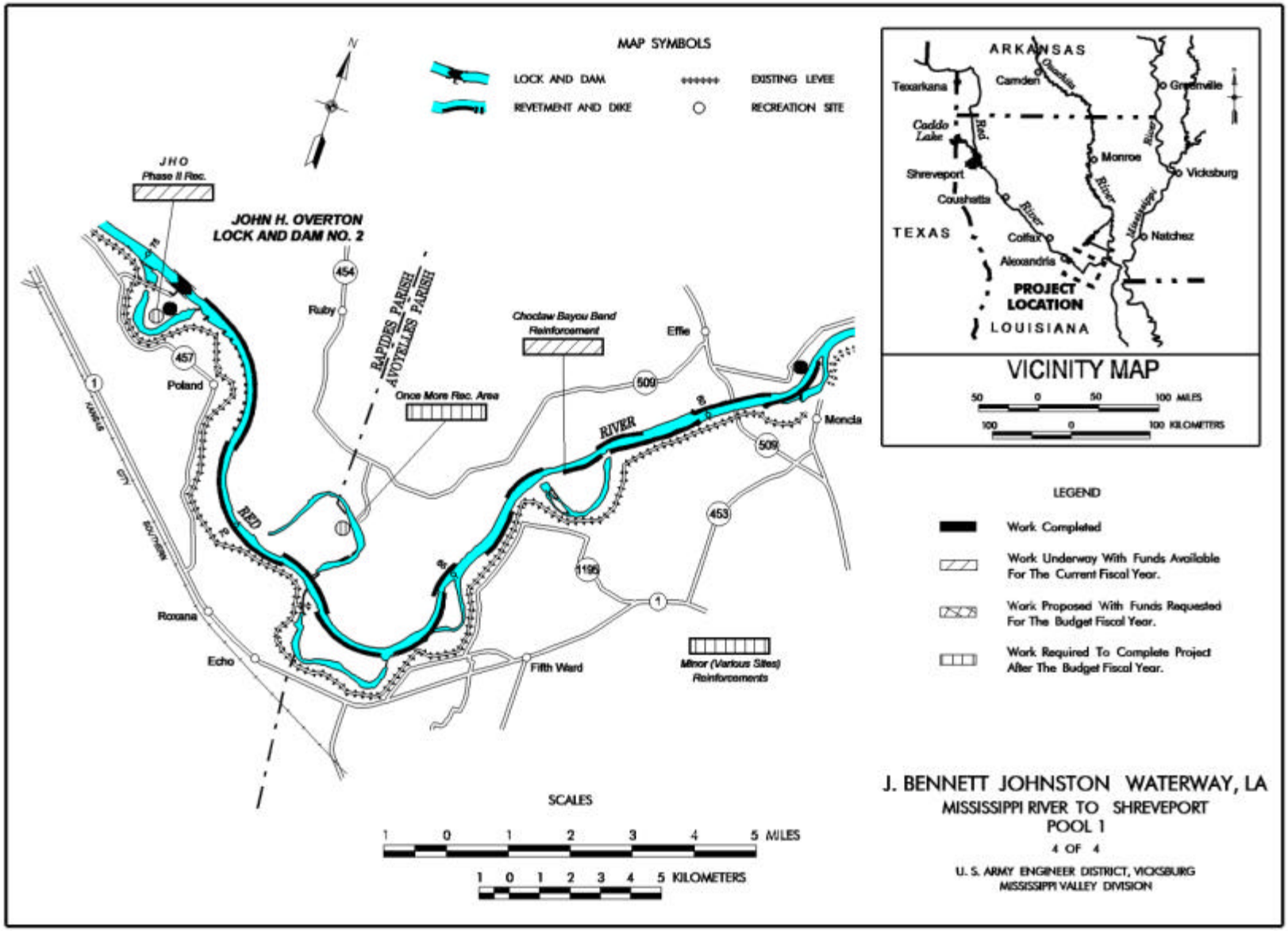
The Water Resources Development Act of 1996 increased the total cost of the Loggy Bayou mitigation increment to $10,500,000. It further provided that lands that are purchased adjacent to the Loggy Bayou Wildlife Management Area may be located in Caddo Parish or Red River Parish. The Water Resources Development Act of 1996 also modified the waterway project to require the Secretary to dredge or perform other related work as required to reestablish and maintain access to, and the environmental value of, the bendway channels designated for preservation in previous project documentation. Further, this work shall be carried out in accordance with the local cooperation requirements for other navigation features of the project. These project modifications are subject to completion of reports showing the work is technically sound and environmentally and economically acceptable, as applicable. The favorable bendway channel (oxbow lakes) dredging report has been returned by OMB for the development of supplemental environmental data and resubmission, and will be resubmitted in late FY 2001.

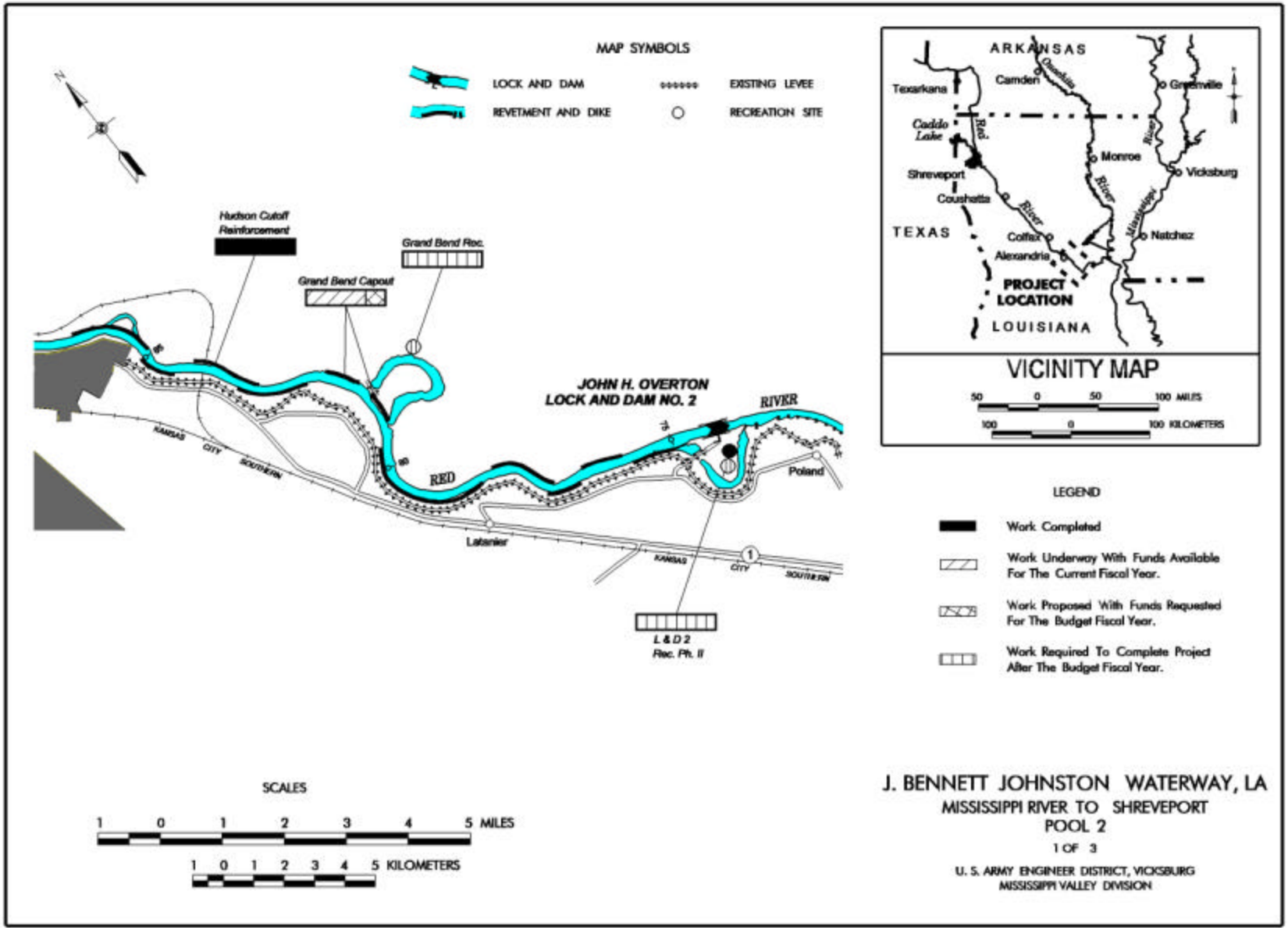
The Water Resources Development Act of 1986, as modified by the Water Resources Development Acts of 1988, 1990 and 2000, and the FY 1990 and FY 1994 Energy and Water Development Appropriations Acts, authorized the wildlife mitigation project for the waterway above mile 104 to Shreveport, Louisiana, at a total cost of $9,420,000. The Water Resources Development Act of 1990 modifies the mitigation project by authorizing the Secretary of the Army to acquire an additional 12,000 acres adjacent to or close to the Bayou Bodcau Wildlife Management Area. The real estate design memorandums, which present the real estate requirements for the Loggy Bayou area and Bayou Bodcau area mitigation lands, have been approved. The Chief of Engineers report on mitigation was returned unendorsed to the Secretary of the Army by the Office of Management and Budget because it does not clearly demonstrate compliance with the Administration's policy on mitigation. A supplemental report which provides the requested information required to demonstrate compliance was submitted to the Assistant Secretary of the Army. The supplemental report, which was submitted prior to passage of the FY 1990 Energy and Water Development Appropriations Act and the Water Resources Development Act of 1990, recommends the acquisition of only 300 acres in the Stumpy Lake area and no lands in the vicinity of the Bayou Bodcau Wildlife Management Area. In the Energy and Water Development Appropriations Act of 1994, the Corps was directed to reimburse the project local sponsor annually for the Federal share of management costs for the Bayou Bodcau mitigation area. The Water Resources Development Act of 2000 modifies the mitigation project by authorizing the purchase of mitigation land from willing sellers in any of the parishes that comprise the Red River Waterway District, consisting of Avoyelles, Bossier, Caddo, Grant, Natchitoches, Rapides, and Red River Parishes.

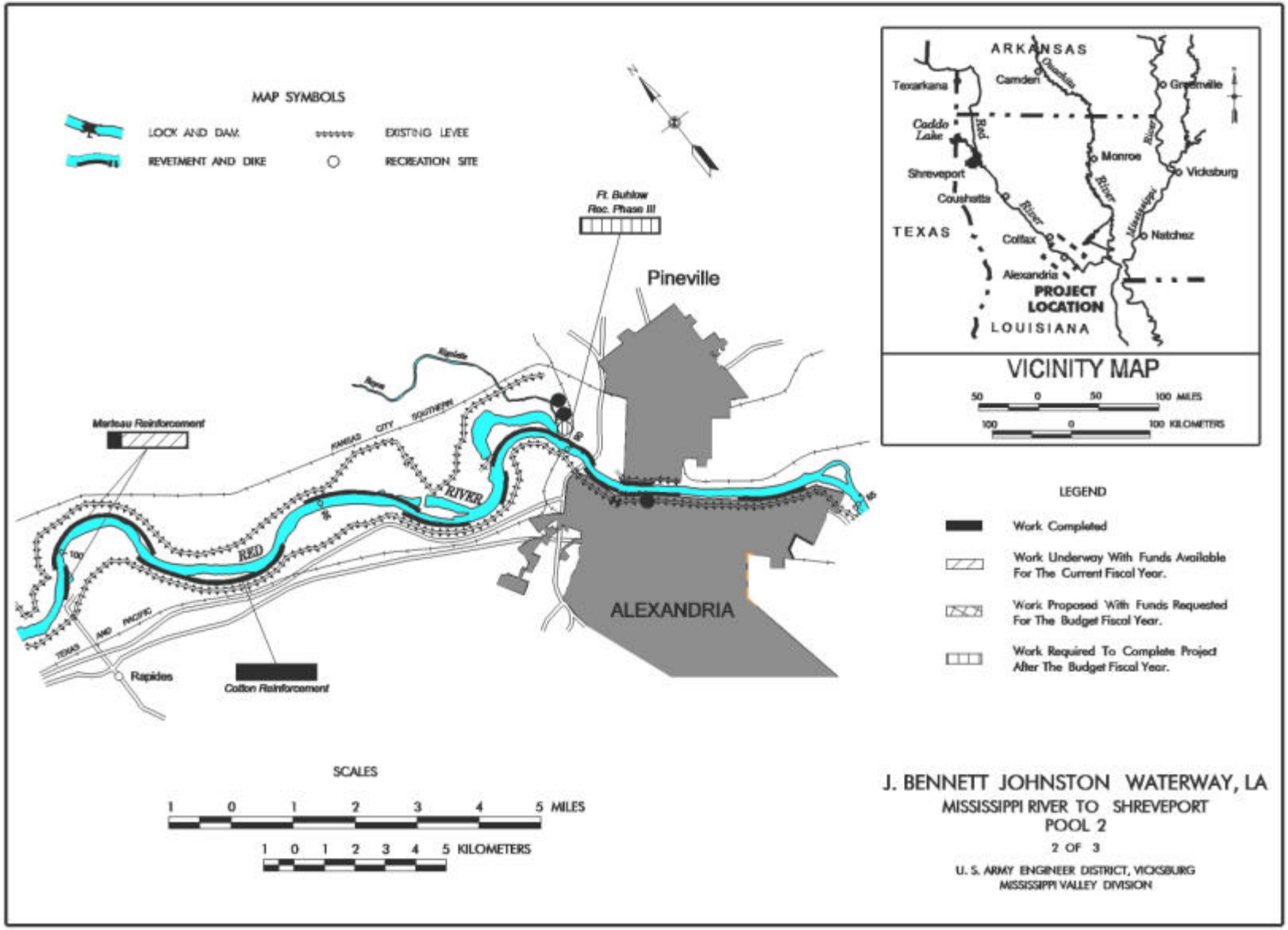

MAP SYMBOLS
LOCK AND DAM
REVETMENT AND DIKE
EXISTING LEVEE
RECREATION SITE
ARKANSAS
Texarkana
Camden
Greenville
Caddo Lake
Red
River
Monroe
Vicksburg
Shreveport
Coushatta
TEXAS
Colfax
Natchez
Alexandria
PROJECT LOCATION
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
Catfish Bayou Reinforcement
RED
RIVER
Alligator Bayou Reinforcement
Moreau Lake Reinforcement
Pump Bayou Reinforcement
Blakewood Lake Reinforcement
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 1
1 OF 4
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

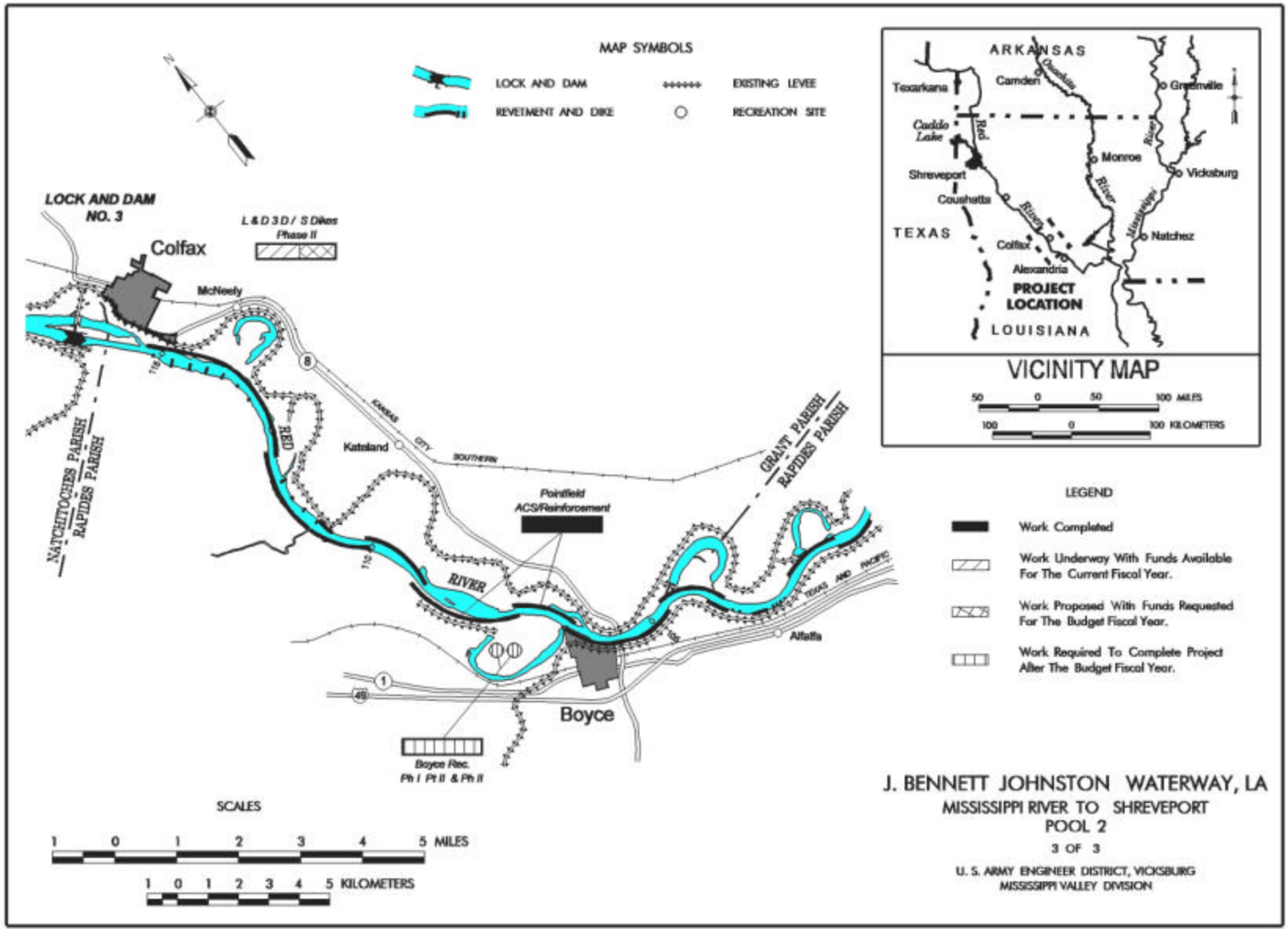

MAP SYMBOLS
LOCK AND DAM
EXISTING LEVEE
REVETMENT AND DIKE
RECREATION SITE
L & D 1
Approach Channel
LINDY C. BOGGS
LOCK AND DAM NO. 1
RED
RIVER
Below LCB L & D 1
Reinforcements
L & D 1
Rec. Area Ph. II
LOCK AND DAM
NO. 1 DIKES
509
Pelton Reinforcement
Bonnie Revetment
Reinforcement
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
ARKANSAS
Texarkana
Camden
Greenville
Caddo
Lake
Monroe
Vicksburg
Shreveport
Coushatta
TEXAS
Colfax
Natchez
Alexandria
PROJECT
LOCATION
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
J. BENNET JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 1
2 OF 4
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

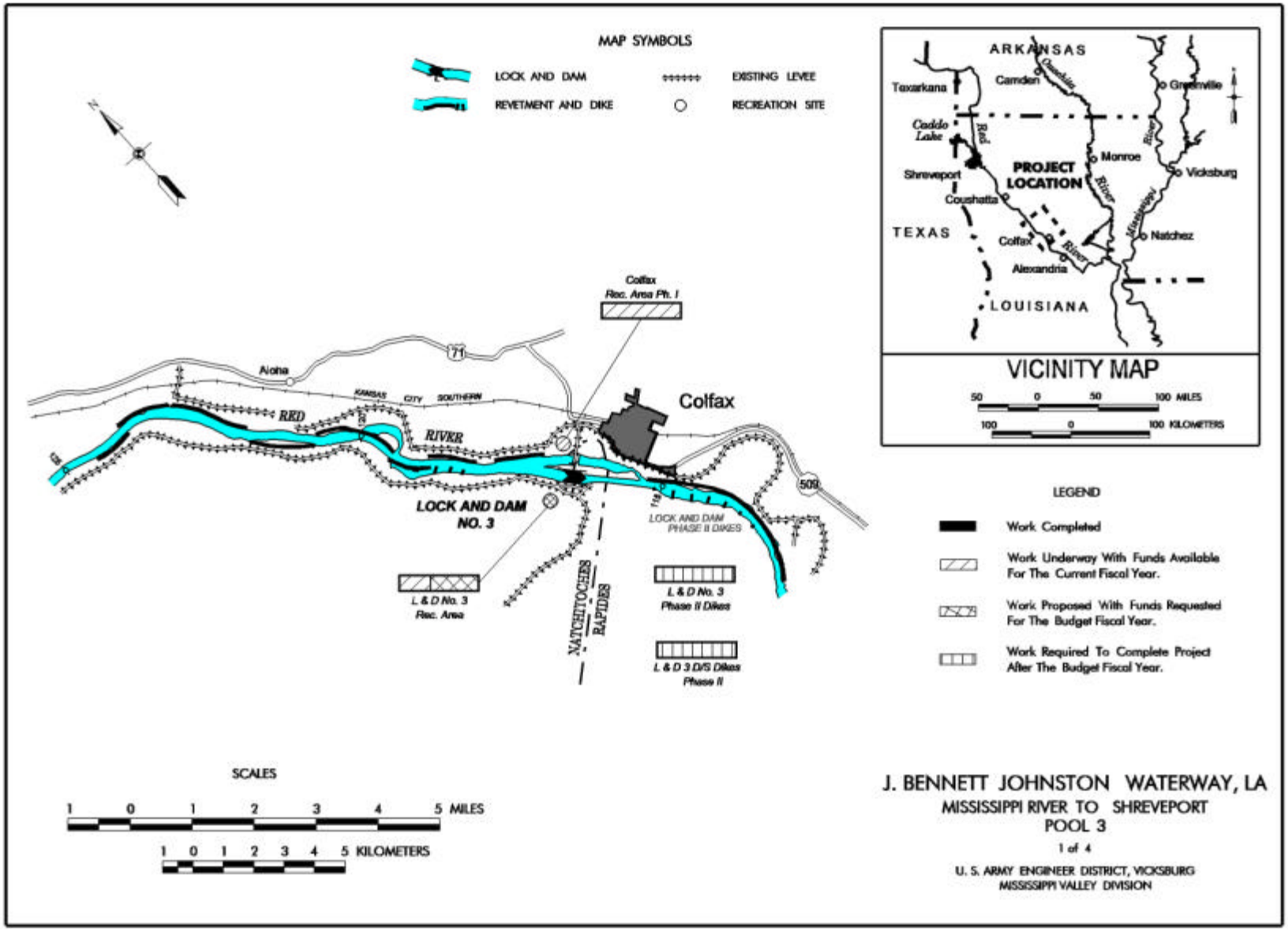

MAP SYMBOLS
LOCK AND DAM
REVETMENT AND DIKE
EXISTING LEVEE
RECREATION SITE
N
Vick
Moncla
RED
RIVER
Saline Reinforcement
LINDY C. BOGGS LOCK AND DAM NO. 1
Broussette
Hadden-Ft. Derussy Rec. Area
ARKANSAS
Texarkana
Camden
Caddo Lake
Shreveport
Coushatta
Monroe
Vicksburg
Greenville
TEXAS
Colfax
Alexandria
Natchez
PROJECT LOCATION
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 1
3 OF 4
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

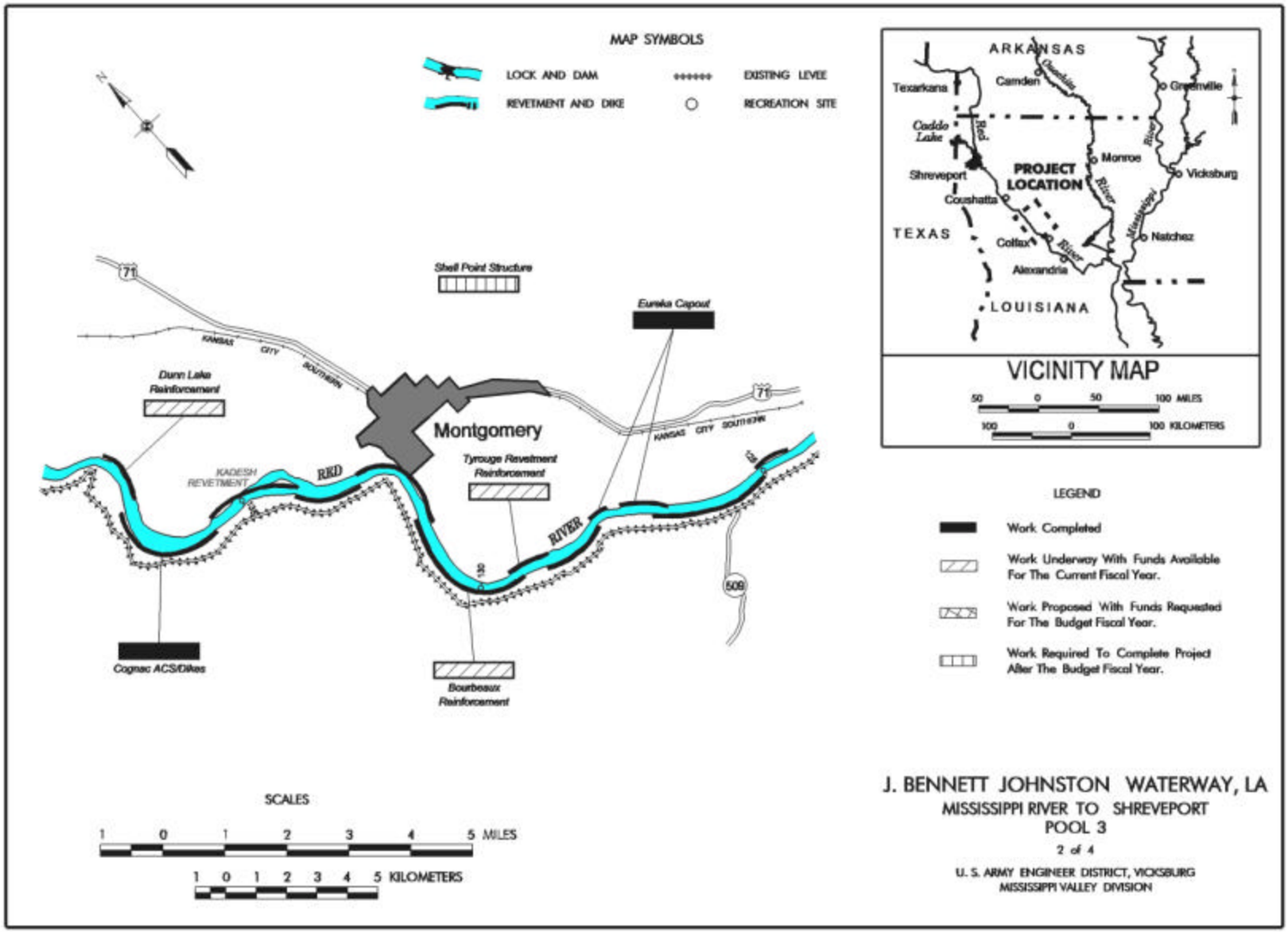

MAP SYMBOLS
LOCK AND DAM
REVETMENT AND DIKE
EXISTING LEVEE
RECREATION SITE
JHO
Phase II Rec.
JOHN H. OVERTON
LOCK AND DAM NO. 2
Ruby
RAPIDES PARISH
AVOYELLES PARISH
Choctaw Bayou Bend
Reinforcement
Effie
Once More Rec. Area
Poland
RIVER
RED
Moncla
Roxana
Echo
Fifth Ward
Minor (Various Sites)
Reinforcements
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
ARKANSAS
Texarkana
Camden
Greenville
Caddo Lake
Shreveport
Monroe
Vicksburg
Coushatta
TEXAS
Colfax
Natchez
Alexandria
PROJECT
LOCATION
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 1
4 OF 4
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

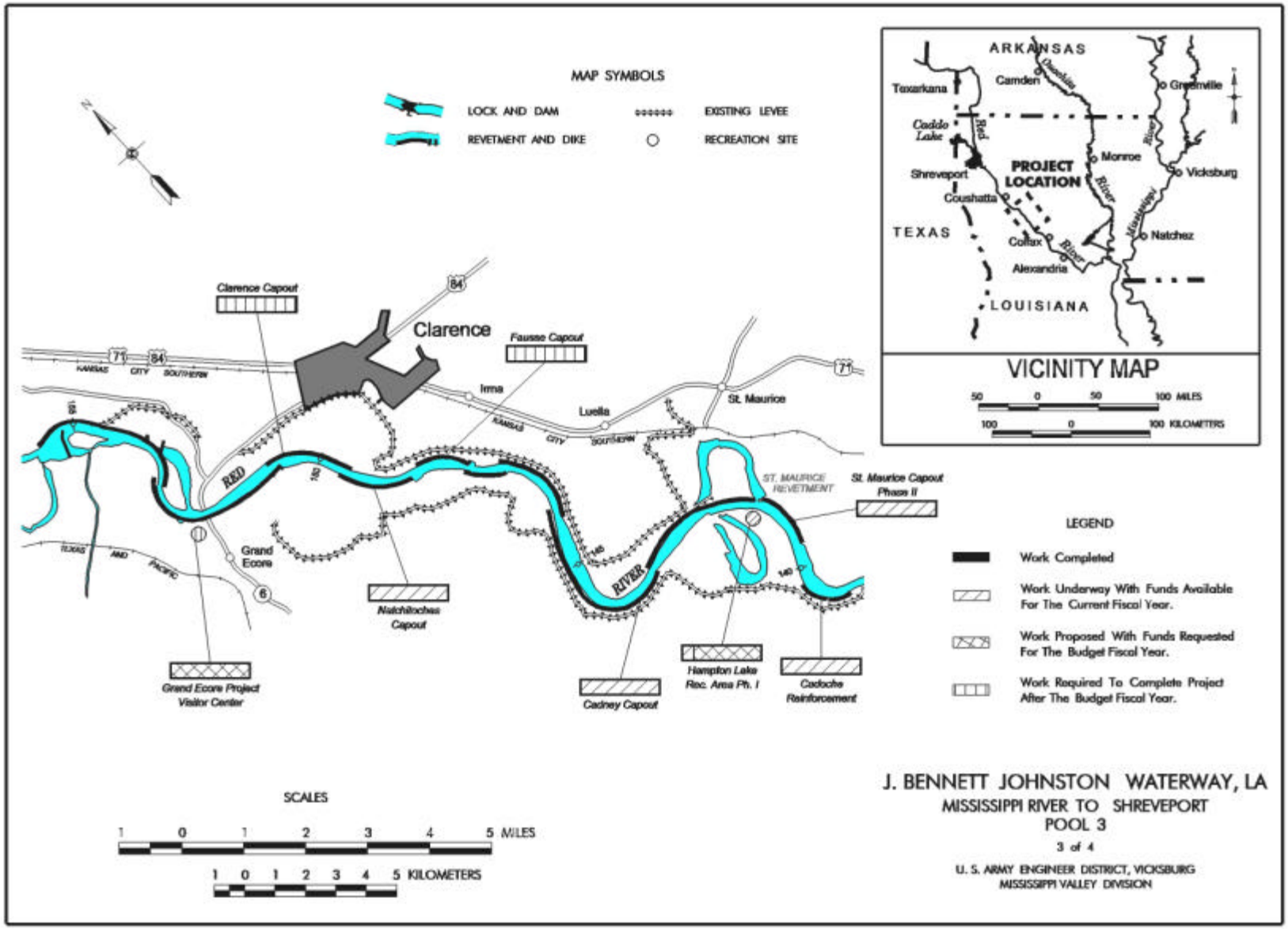

MAP SYMBOLS
LOCK AND DAM
EXISTING LEVEE
REVETMENT AND DIKE
RECREATION SITE
Hudson Cutoff Reinforcement
Grand Bend Rec.
Grand Bend Capout
JOHN H. OVERTON LOCK AND DAM NO. 2
RIVER
RED
Poland
Lafayette
KANSAS CITY SOUTHERN
L & D 2 Rec. Pt. II
ARKANSAS
Texarkana
Camden
Greenville
Caddo Lake
Red River
Monroe
Vicksburg
Shreveport
Coushatta
Mississippi River
TEXAS
Colfax
Natchez
Alexandria
PROJECT LOCATION
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 2
1 OF 3
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

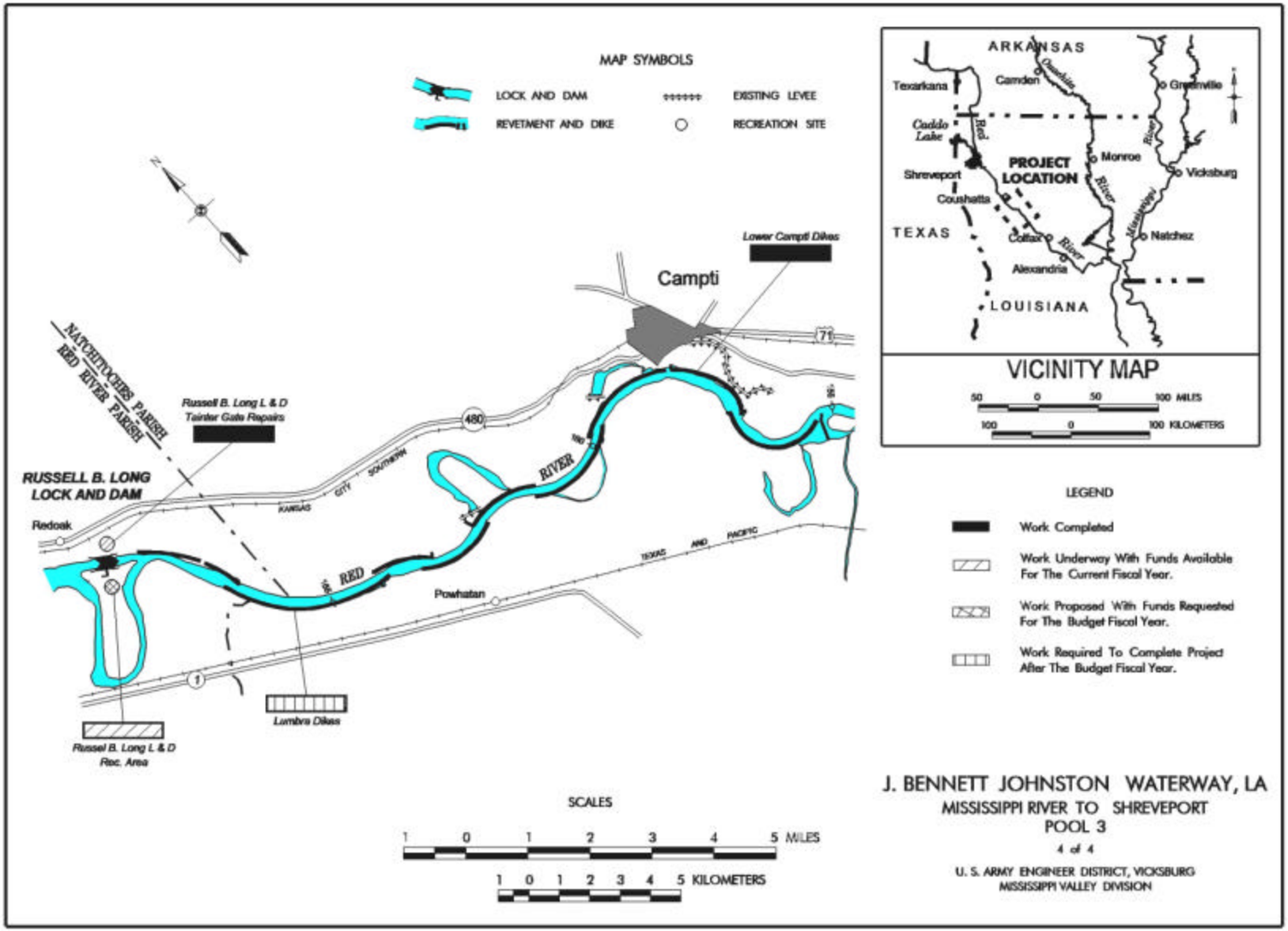

MAP SYMBOLS
LOCK AND DAM
EXISTING LEVEE
REVETMENT AND DIKE
RECREATION SITE
Ft. Buhlow Rec. Phase III
Pineville
Marteau Reinforcement
Rapides
Cotton Reinforcement
RED
RIVER
ALEXANDRIA
ARKANSAS
Texarkana
Camden
Greenville
Caddo Lake
Shreveport
Coushatta
Monroe
Vicksburg
TEXAS
Colfax
Natchez
Alexandria
PROJECT LOCATION
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 2
2 OF 3
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

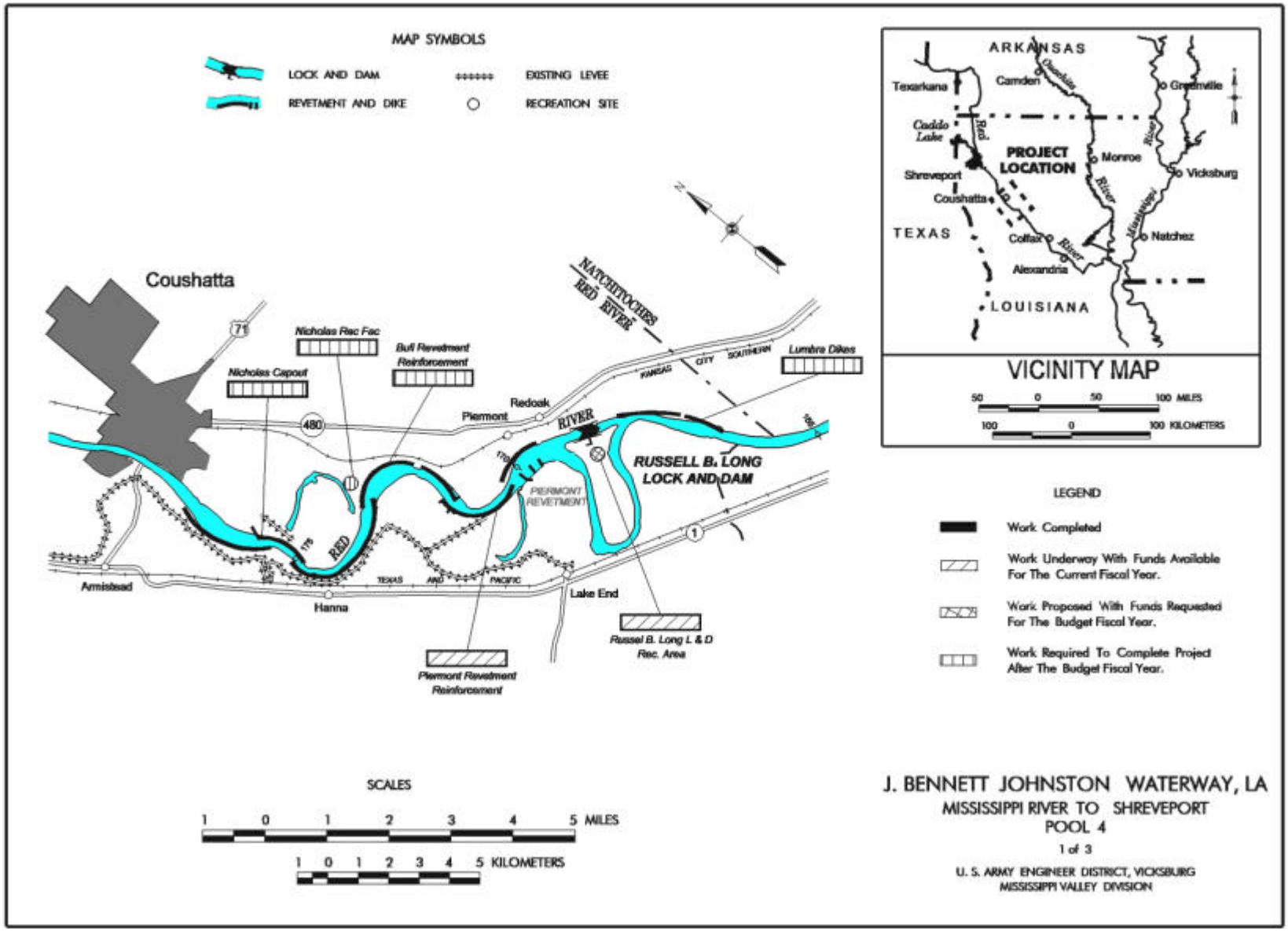

MAP SYMBOLS
LOCK AND DAM
REVETMENT AND DIKE
EXISTING LEVEE
RECREATION SITE
LOCK AND DAM NO. 3
Colfax
L & D 3 D / S Dikes Phase II
McNeely
Kataland
Pointfield ACS/Reinforcement
Boyce
Boyce Rec. Ph I Pt II & Ph II
Alfalfa
RED
RIVER
NATCHITOCHES PARISH
RAPIDES PARISH
GRANT PARISH
RAPIDES PARISH
KANSAS CITY SOUTHERN
TEXAS AND PACIFIC
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
ARKANSAS
Texarkana
Camden
Greenville
Caddo Lake
Red River
Monroe
Vicksburg
Shreveport
Coushatta
Mississippi River
TEXAS
Colfax
Natchez
Alexandria
PROJECT LOCATION
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 2
3 OF 3
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

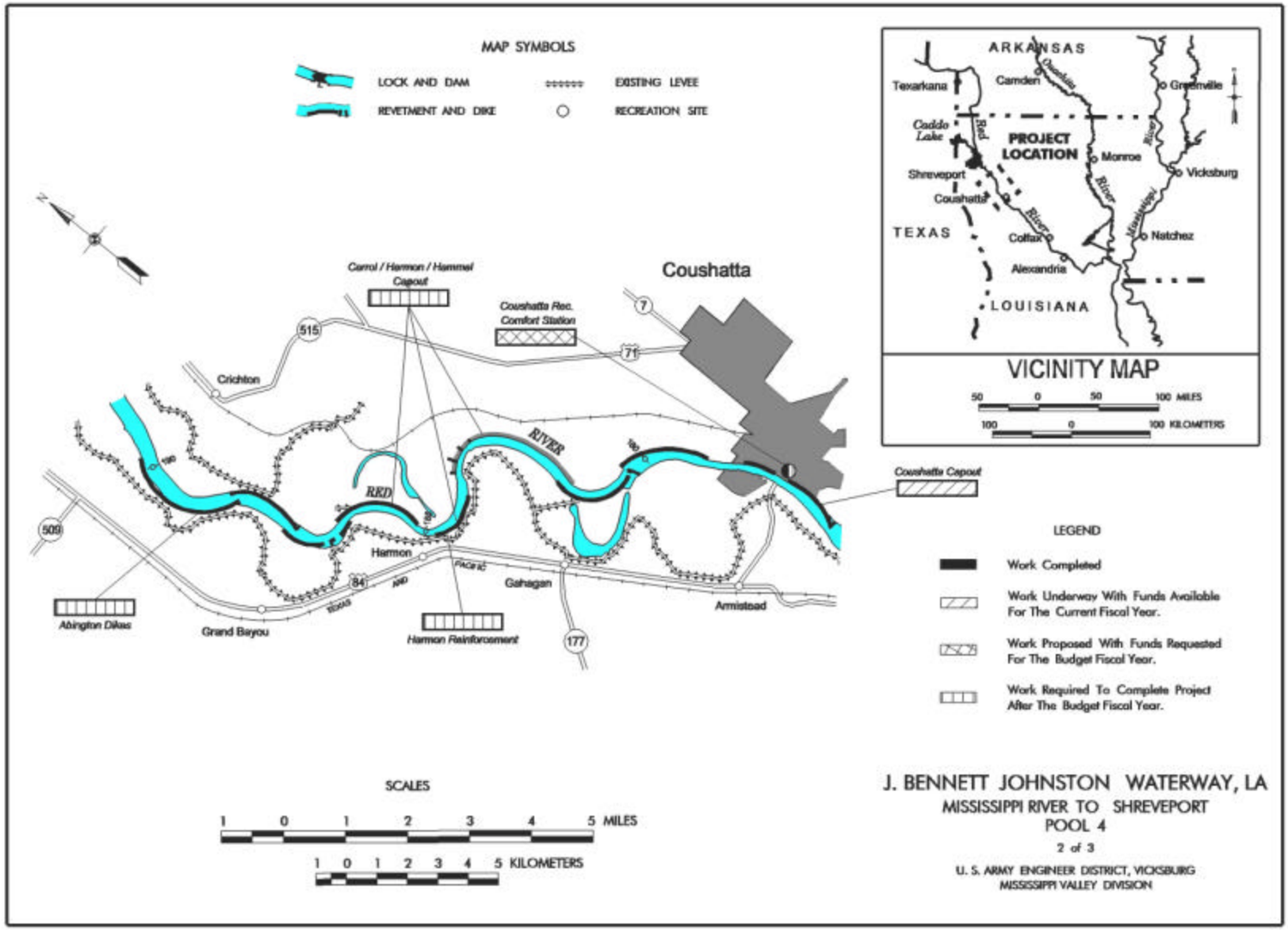

MAP SYMBOLS
LOCK AND DAM
REVETMENT AND DIKE
EXISTING LEVEE
RECREATION SITE
Colfax Rec. Area Ph. I
Aloha
71
KANSAS CITY SOUTHERN
RED
RIVER
Colfax
LOCK AND DAM NO. 3
LOCK AND DAM PHASE II DIKES
509
L & D No. 3 Rec. Area
NATCHITOCHES RAPIDS
L & D No. 3 Phase II Dikes
L & D 3 D/S Dikes Phase II
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
ARKANSAS
Texarkana
Camden
Ouachita
Greenville
Caddo Lake
Red
River
Monroe
PROJECT LOCATION
Vicksburg
Shreveport
Coushatta
River
Mississippi
TEXAS
Colfax
Natchez
Alexandria
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 3
1 of 4
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

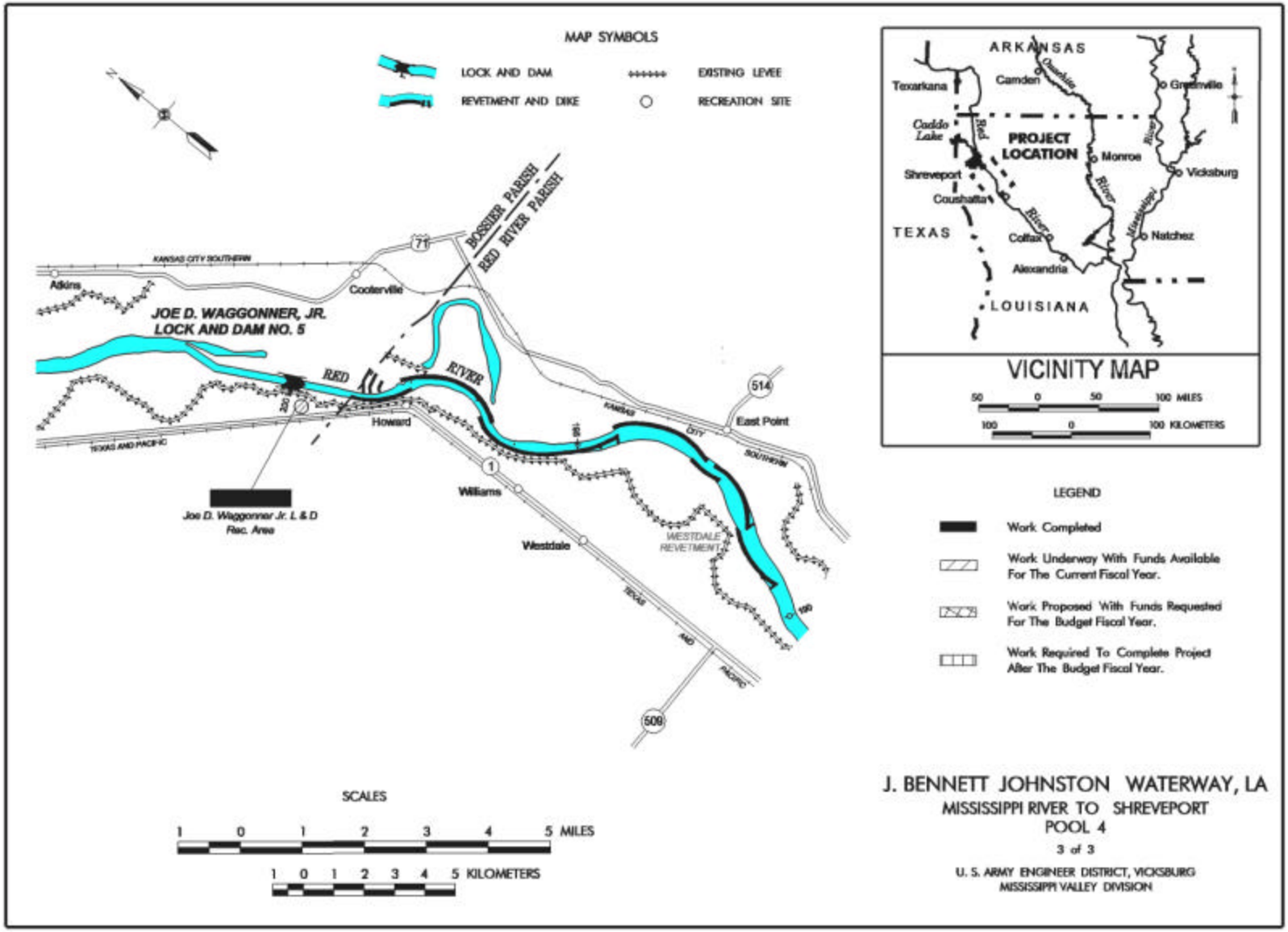

MAP SYMBOLS
LOCK AND DAM
EXISTING LEVEE
REVETMENT AND DIKE
RECREATION SITE
Shell Point Structure
Eureka Capout
Dunn Lake Reinforcement
Montgomery
Tyrouge Revetment Reinforcement
KADESH REVETMENT
RED
RIVER
KANSAS CITY SOUTHERN
71
509
Cognac ACS/Dikes
Bourbeaux Reinforcement
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
ARKANSAS
TEXAS
LOUISIANA
Texarkana
Camden
Greenville
Caddo Lake
Shreveport
Monroe
Vicksburg
PROJECT LOCATION
Coushatta
Natchez
Colfax
Alexandria
Red River
Ouachita River
Mississippi River
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 3
2 of 4
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

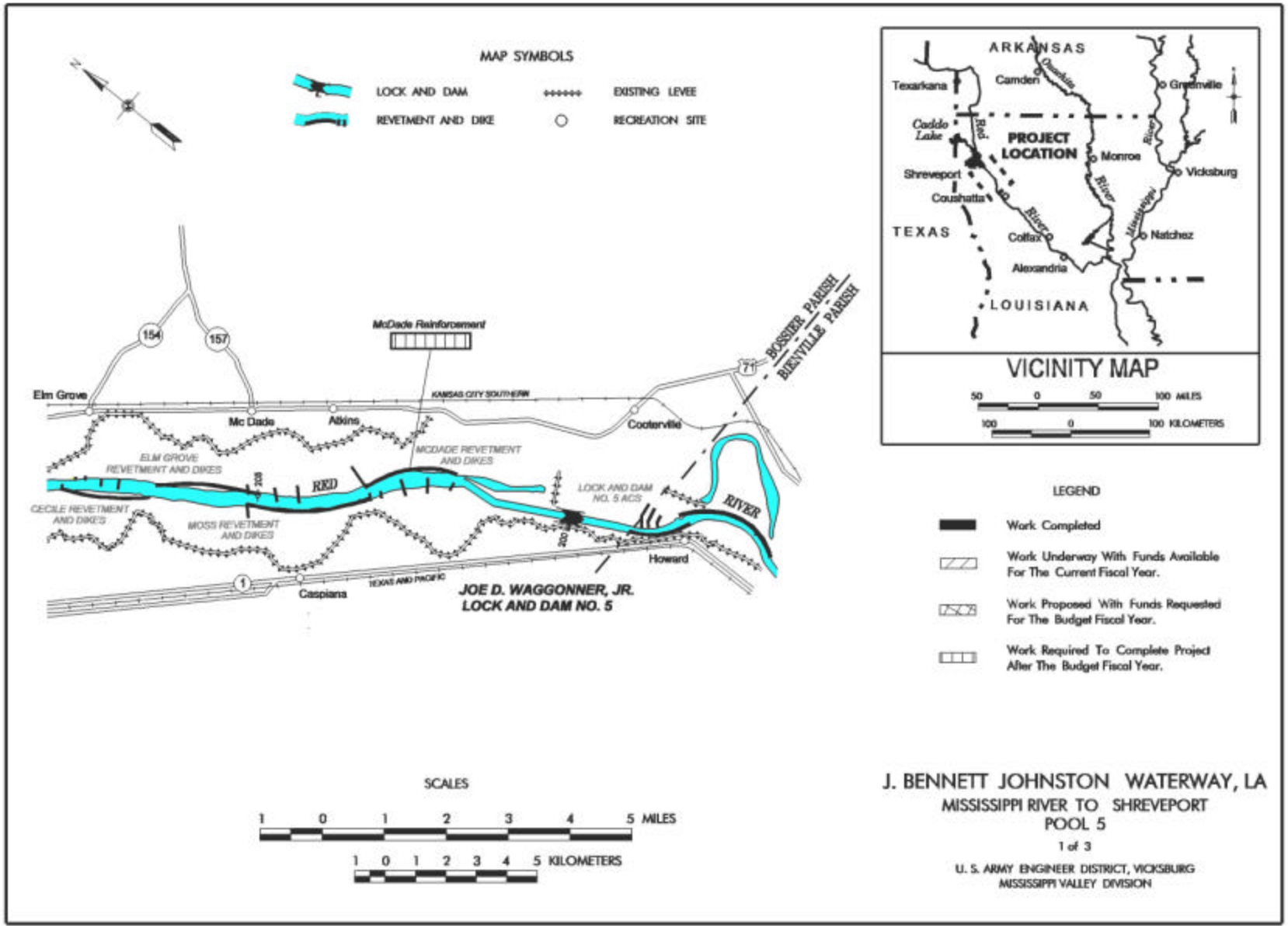

MAP SYMBOLS
LOCK AND DAM
EXISTING LEVEE
REVETMENT AND DIKE
RECREATION SITE
ARKANSAS
Texarkana
Camden
Greenville
Caddo Lake
Red
River
Monroe
Shreveport
PROJECT LOCATION
Vicksburg
Coushatta
TEXAS
Natchez
Colfax
Alexandria
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
Clarence Capout
Clarence
Fausse Capout
Irma
Luella
St. Maurice
ST. MAURICE REVETMENT
St. Maurice Capout Phase II
RED
RIVER
Grand Ecore
Natchitoches Capout
Grand Ecore Project Visitor Center
Cadney Capout
Hampton Lake Rec. Area Ph. I
Cadoche Reinforcement
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 3
3 of 4
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

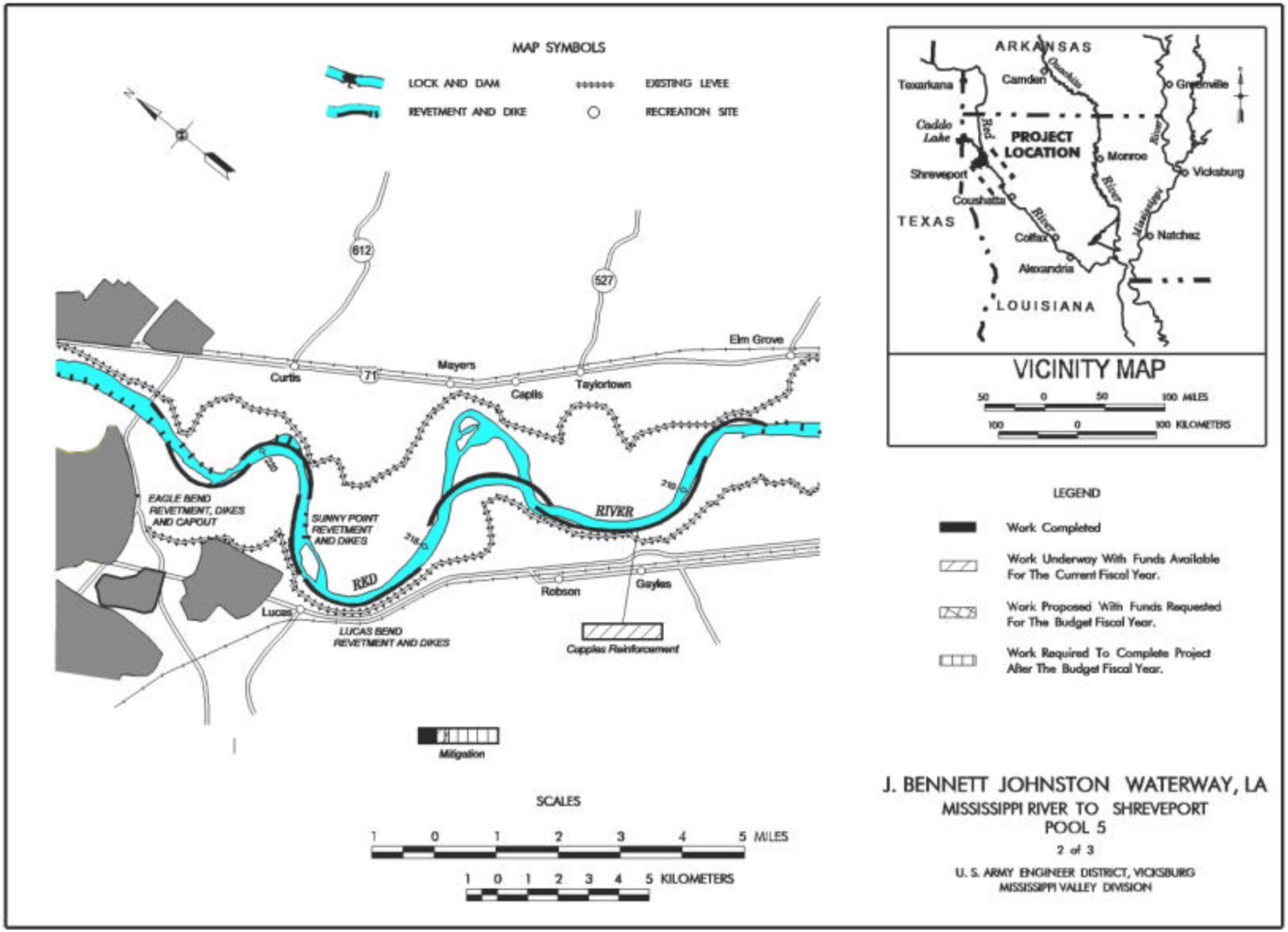

MAP SYMBOLS
LOCK AND DAM
EXISTING LEVEE
REVETMENT AND DIKE
RECREATION SITE
ARKANSAS
Texarkana
Camden
Greenville
Caddo Lake
Red
River
PROJECT LOCATION
Monroe
Vicksburg
Shreveport
Coushatta
TEXAS
Natchez
Alexandria
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
Lower Campti Dikes
Campti
71
NATCHITOCHES PARISH
RED RIVER PARISH
Russell B. Long L & D
Tainter Gate Repairs
480
RUSSELL B. LONG
LOCK AND DAM
Redoak
KANSAS CITY SOUTHERN
RIVER
RED
TEXAS AND PACIFIC
Powhatan
1
Lumbra Dikes
Russel B. Long L & D
Rec. Area
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 3
4 of 4
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

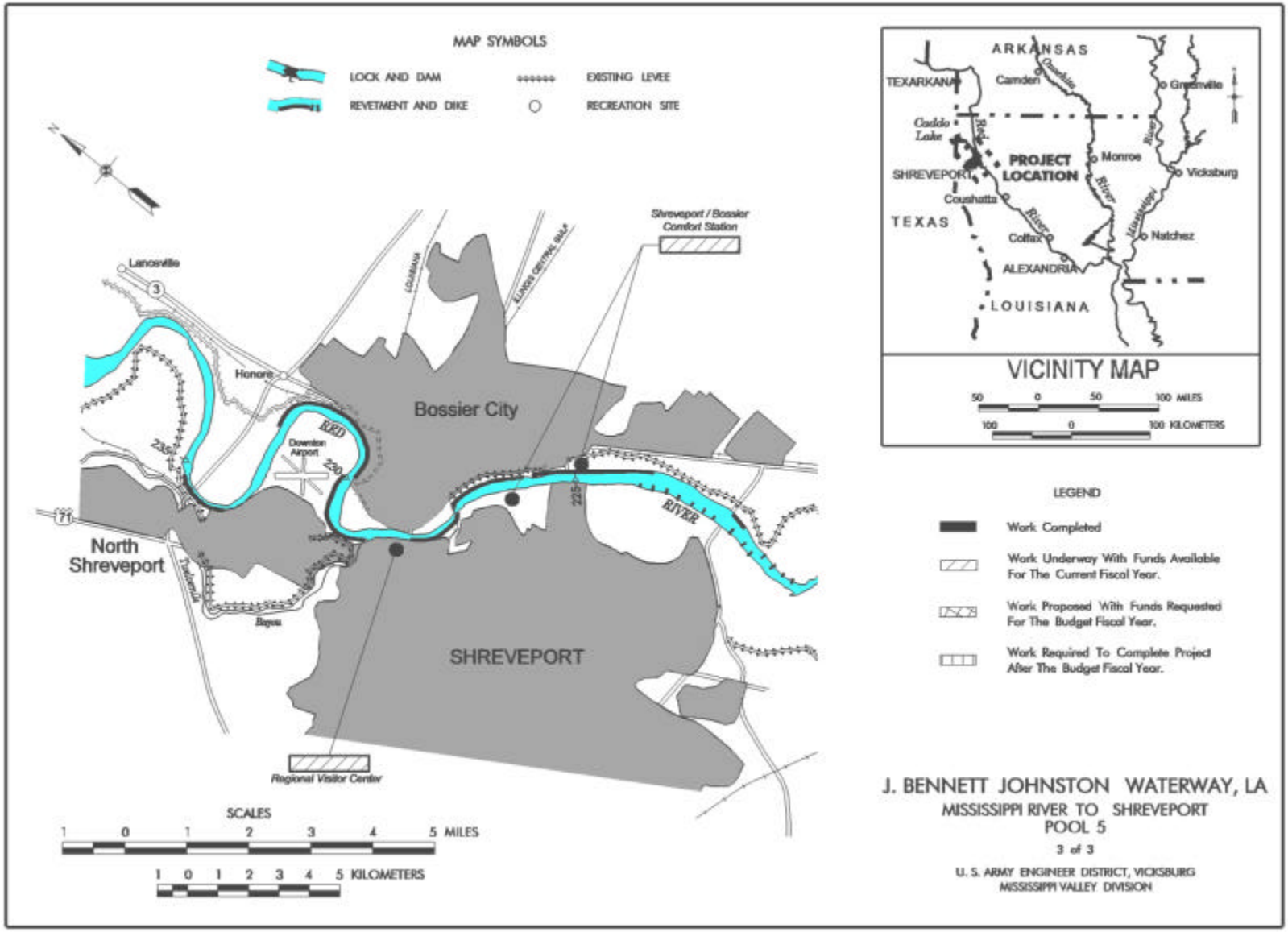

MAP SYMBOLS
LOCK AND DAM
REVETMENT AND DIKE
EXISTING LEVEE
RECREATION SITE
Coushatta
Nicholas Rec Fac
Nicholas Capout
Bull Revetment Reinforcement
Lumbre Dikes
NATCHITOCHES
RED RIVER
Redoak
Piermont
RIVER
RUSSELL B. LONG LOCK AND DAM
PIERMONT REVETMENT
RED
Armistead
Hanna
Lake End
Russel B. Long L & D Rec. Area
Piermont Revetment Reinforcement
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
ARKANSAS
Texarkana
Camden
Greenville
Caddo Lake
Red
PROJECT LOCATION
Monroe
Vicksburg
Shreveport
Coushatta
TEXAS
Colfax
Natchez
Alexandria
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 4
1 of 3
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION


MAP SYMBOLS
LOCK AND DAM
EXISTING LEVEE
REVETMENT AND DIKE
RECREATION SITE
Carroll / Harmon / Hammel Capout
Coushatta Rec. Comfort Station
Coushatta
Crichton
RED
RIVER
Harmon
Gahagan
Armistead
Grand Bayou
Abington Dikes
Harmon Reinforcement
Coushatta Capout
ARKANSAS
Texarkana
Camden
Greenville
Caddo Lake
PROJECT LOCATION
Monroe
Vicksburg
Shreveport
Coushatta
TEXAS
Colfax
Natchez
Alexandria
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 4
2 of 3
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION


MAP SYMBOLS
LOCK AND DAM
EXISTING LEVEE
REVETMENT AND DIKE
RECREATION SITE
BOSSIER PARISH
RED RIVER PARISH
KANSAS CITY SOUTHERN
Atkins
Cooterville
JOE D. WAGGONNER, JR.
LOCK AND DAM NO. 5
RED
RIVER
Howard
TEXAS AND PACIFIC
Joe D. Waggonner Jr. L & D
Rec. Area
Williams
Westdale
WESTDALE
REVETMENT
East Point
KANSAS CITY SOUTHERN
TEXAS AND PACIFIC
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
ARKANSAS
Texarkana
Camden
Greenville
Caddo Lake
Red
PROJECT LOCATION
Monroe
Vicksburg
Shreveport
Coushatta
TEXAS
Colfax
Natchez
Alexandria
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 4
3 of 3
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION


MAP SYMBOLS
LOCK AND DAM
EXISTING LEVEE
REVETMENT AND DIKE
RECREATION SITE
McDade Reinforcement
Elm Grove
Mc Dade
Atkins
Cooterville
KANSAS CITY SOUTHERN
BOSSIER PARISH
BIENVILLE PARISH
ELM GROVE REVETMENT AND DIKES
MCDADE REVETMENT AND DIKES
CECILE REVETMENT AND DIKES
MOSS REVETMENT AND DIKES
RED
RIVER
LOCK AND DAM NO. 5 ACS
Howard
Caspiana
TEXAS AND PACIFIC
JOE D. WAGGONNER, JR. LOCK AND DAM NO. 5
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
ARKANSAS
Texarkana
Camden
Greenville
Caddo Lake
PROJECT LOCATION
Monroe
Vicksburg
Shreveport
Coushatta
TEXAS
Colfax
Natchez
Alexandria
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 5
1 of 3
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION


MAP SYMBOLS
LOCK AND DAM
EXISTING LEVEE
REVETMENT AND DIKE
RECREATION SITE
612
527
71
Curtis
Mayers
Capitis
Taylortown
Elm Grove
EAGLE BEND REVETMENT, DIKES AND CAPOUT
SUNNY POINT REVETMENT AND DIKES
RED
RIVER
Lucas
LUCAS BEND REVETMENT AND DIKES
Robson
Gayles
Cuppias Reinforcement
Mitigation
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
ARKANSAS
Texarkana
Camden
Greenville
Caddo Lake
PROJECT LOCATION
Monroe
Vicksburg
Shreveport
Coushatta
TEXAS
Colfax
Natchez
Alexandria
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 5
2 of 3
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION


MAP SYMBOLS
LOCK AND DAM
EXISTING LEVEE
REVETMENT AND DIKE
RECREATION SITE
Shreveport / Bossier Comfort Station
Lanoxville
Honore
Bossier City
RED
Downton Airport
North Shreveport
Bayou
SHREVEPORT
RIVER
Regional Visitor Center
SCALES
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 KILOMETERS
ARKANSAS
TEXARKANA
Camden
Greenville
Caddo Lake
PROJECT LOCATION
Monroe
Vicksburg
SHREVEPORT
Coushatta
TEXAS
Colfax
Natchez
ALEXANDRIA
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
J. BENNETT JOHNSTON WATERWAY, LA
MISSISSIPPI RIVER TO SHREVEPORT
POOL 5
3 of 3
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General - Dam Safety Assurance - Reservoirs

PROJECT: Pine River Dam, Cross Lake, Minnesota (Continuing)

LOCATION: Pine River Dam is on the Pine River at the outlet of Cross Lake, located in Crow Wing County, about 16 river miles above the confluence of the Pine and Mississippi Rivers, 199 river miles above St. Paul. The dam is at the community of Crosslake, Minnesota.

DESCRIPTION: The recommended plan for improvements to the Pine River Dam for dam safety assurance includes: rehabilitation of the existing structure to include 13 new gates, concrete replacement and a sheetpile and concrete wall along the current main dam embankment and rehabilitation of the 16 perimeter dikes located around the pool. All work is programmed.

AUTHORIZATION: River and Harbor Acts of 14 June 1880 and 2 August 1882.

REMAINING BENEFIT - REMAINING COST RATIO: No detailed economic analysis has been performed on this project.

TOTAL BENEFIT - COST RATIO: No detailed economic analysis has been performed on this project.

INITIAL BENEFIT - COST RATIO: No detailed economic analysis has been performed on this project.

BASIS OF BENEFIT - COST RATIO: No detailed economic analysis has been performed on this project.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$10,200,000		Entire Project	62	May 2002
Estimated Non-Federal Cost	0				
Total Estimated Project Cost	$10,200,000				
			PHYSICAL DATA		
Allocations to 30 September 2000	6,325,000				
Conference Amount for FY 2001	3,873,000		Rehabilitation of Existing Structure:		
Allocation for FY 2001	3,245,000[1]		13 new gates		
Allocations through FY 2001	9,570,000	94	Concrete replacement		
			Sheetpile and concrete wall		

[1] Reflects $620,000 reduction assigned as savings and slippage and $8,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

SUMMARIZED FINANCIAL DATA (Continued)

Allocation Requested for FY 2002	630,000	100
Programmed Balance to Complete after FY 2002	0	
Unprogrammed Balance to Complete after FY 2002	0	

JUSTIFICATION: The National Dam Safety Program found that many older dams were unsafe not because of internal structural problems but because land use had changed drastically. When the Mississippi River Headwaters dams were built 80 to 100 years ago, very few people lived in the surrounding areas. Because these areas were undeveloped, flooding of any magnitude would have had minor economic impacts and little threat to life. Since then, development has occurred, population has increased dramatically, and more data has become available for hydrologic studies. This site has been identified as having inadequate spillway capacity that would result in the unmodified dam embankment being overtopped by about 4.6 feet during the probable maximum flood (PMF) and by 1.1 feet during the 70 percent PMF. The loss of life estimate at the current spillway capacity (39 percent of PMF) suggests that the dam cannot safely pass events greater than this value with adequate freeboard and that a failure resulting from a breach of the main embankment would have extreme consequences downstream.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Complete Construction	$ 380,000
Planning, Engineering and Design	80,000
Supervision and Administration	170,000
Total	$ 630,000

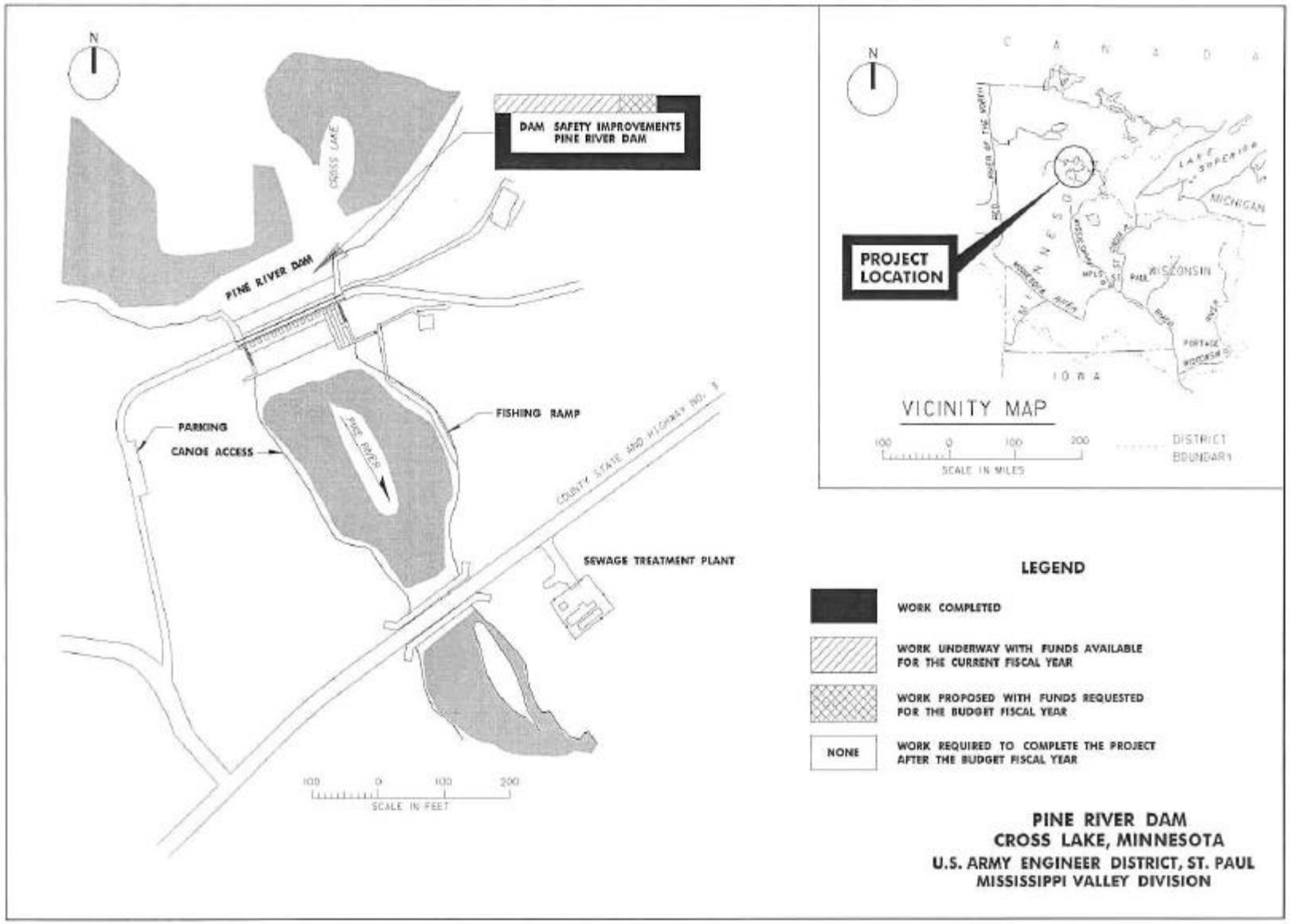
NON-FEDERAL COST: There are no non-Federal costs.

STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $10,200,000 is the same as the latest estimate presented to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) was prepared during the development of the Design Memorandum dated April 1997. The EA concluded that there was no significant impact.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were provided in FY 1995. The Reconnaissance Report approved in April 1995 proposed a solution that would protect against the 70 percent probable maximum flood (PMF) because of substantial cost savings over designing for 100 percent PMF with little risk to life. This solution was to be accomplished by a combination of increasing the existing spillway capacity and raising the perimeter dike system and main embankment. A Value Engineering study, completed in 1996, recommended that the structure be altered to include larger openings. Accordingly, the project scope and cost were reduced in the April 1997 Design Memorandum to reflect rehabilitation rather than replacement of the structure to include 13 new gates, concrete replacement, a sheetpile and concrete wall along the current main dam embankment, and rehabilitation of the perimeter dikes to contain the water held by the structure. The scheduled completion date is May 2002.


N
DAM SAFETY IMPROVEMENTS
PINE RIVER DAM
CROSS LAKE
PINE RIVER DAM
PARKING
CANOE ACCESS
FISHING RAMP
PINE RIVER
COUNTY STATE AND HIGHWAY NO. 3
SEWAGE TREATMENT PLANT
100 0 100 200
SCALE IN FEET
N
C A N A D A
PROJECT LOCATION
LAKE SUPERIOR
MICHIGAN
WISCONSIN
MPLS.
ST. PAUL
IOWA
VICINITY MAP
100 0 100 200
SCALE IN MILES
DISTRICT BOUNDARY
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
NONE
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
PINE RIVER DAM
CROSS LAKE, MINNESOTA
U.S. ARMY ENGINEER DISTRICT, ST. PAUL
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General – Local Protection (Flood Control)

PROJECT: East St. Louis, Illinois (Continuing)

LOCATION: The project is located in St. Clair and Madison Counties, Illinois, along the left bank of the Mississippi River between river miles 175 and 195 above the Ohio River.

DESCRIPTION: The project consists of rehabilitation of 21 small gravity drains, 10 large gravity drains (gatewells), 20 closure structures, and 300 relief wells: floodwall and levee rehabilitation work: rehabilitation of 12 pumping stations, 3 drainage control structures, and 6 segments of channel rehabilitation; replacement of 3 bridge structures; and abandonment and removal of 4 bridge structures. All work, except bridges, is programmed. The bridge work, which is unprogrammed, will be performed at 100 percent non-Federal cost.

AUTHORIZATION: Energy and Water Development Appropriations Act of 1988 (PL 100-202).

REMAINING BENEFIT-REMAINING COST RATIO: 18.0 to 1 at 8 7/8 percent.

TOTAL BENEFIT-COST RATIO: 10.3 to 1 at 8 7/8 percent.

INITIAL BENEFIT-COST RATIO: 9.6 to 1 at 8 7/8 percent (FY 1988).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Supplemental Project Report, completed March 1999.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Federal Cost			$37,861,000	
Programmed Construction		$37,861,000		
Unprogrammed Construction		0		
Estimated Non-Federal Cost			15,875,000	
Programmed Construction		12,479,000		
Cash Contributions	9,798,000 [1]			
Other Costs	2,681,000			
Estimated Non-Federal Cost				
Unprogrammed Construction		3,396,000		
Other Cost	3,396,000			
Total Estimated Programmed Construction Cost			50,340,000	
Total Estimated Unprogrammed Construction Cost			3,396,000	
Total Estimated Project Cost			53,736,000	
Allocations to 30 September 2000			29,343,000	
Conference Allowance for FY 2001			900,000	
Allocation for FY 2001			1,299,000 [2]	
Allocations through FY 2001			30,642,000	81
Allocation Requested for FY 2002			1,000,000	84
Programmed Balance to Complete After FY 2002			6,219,000	
Unprogrammed Balance to Complete After FY 2002			0	

STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	92	Being determined

PHYSICAL DATA	
Floodwall & Levee Work	
Small Gravity Drains	21
Large Gravity Drains	10
Closure Structures	20
Relief Wells	300
Pumping Stations	12
Drainage Control Structures	3
Bridge Replacements	3
Bridge Abandonment and Removal	4
Channels	6 segments

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[1] A cash contribution of $11,964,000 is partially offset by an estimated credit of $1,577,000 for work-in-kind on Harding Ditch Excavation and Clearing, $570,000 on Schoenberger Clearing and Excavation, and $19,000 on Nameoki Ditch.

[2] Reflects $144,000 reduction assigned as savings and slippage; $545,000 reprogrammed to the project; and $2,000 rescinded from the project in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The original project, authorized by the Flood Control Act of 1936, provides protection for 85,000 acres of business, industrial and residential areas, including East St. Louis, Granite City, Madison, Venice, Brooklyn, Fairmont and Sauget, Illinois. Urban design flood protection is provided for a Mississippi River flood stage of 52 feet on the St. Louis, Market Street gage. The rehabilitation project was authorized by the Energy and Water Development Appropriations Act of 1988. As a result of failure of a deteriorated roller gate, localized flooding occurred in 1986 causing the evacuation of 1,200 persons and an estimated $35,000,000 in damages. The need for extensive rehabilitation work was verified during preparation of a General Design Memorandum for the project during Fiscal Year 1990. The extensive rehabilitation work needed is the result of several decades of deferral of required project maintenance due to the limited financial capability of the local sponsor, Metro East Sanitary District. A tax referendum, which was passed in February 1989, provides the Metro East Sanitary District with increased tax revenue necessary to cost share in the rehabilitation project and to perform the necessary maintenance of the project after the rehabilitation is completed. The average annual benefits, all flood control, are $30,159,000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Initiate:	
North and East Pump Stations	$ 421,000
Cahokia Pump Station Inlet Stability	153,000
Engineering and Design	358,000
Supervision and Administration	68,000
Total	$1,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$ 563,000	$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for construction of the project.	3,350,000	
Pay 23.8 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103(m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsor's ability to pay for credit allowed based on section 215 of the Flood Control Act of 1968.	11,962,000	
Total Non-Federal Costs	$ 15,875,000	$ 0

Local interests are also required to operate and maintain all works after completion.

STATUS OF LOCAL COOPERATION: The local sponsor, the Metro East Sanitary District, is strongly supportive of the project. A tax referendum passed in February 1989, provided sufficient funds for local sponsorship of the project. Three Project Cooperation Agreements were executed for this project. The Project Cooperation Agreement for the first construction item was executed in November 1989. The second Project Cooperation Agreement was executed on 11 December 1990. The third Project Cooperation Agreement was executed on 11 March 1992. Amendment No. 1 to the third Project Cooperation Agreement, crediting the local sponsor for costs of work-in-kind (Clearing & Excavation of Drainage Channels), was executed on 9 August 1994. Amendment No. 2, executed on 2 September 1997, allows the Corps to award a contract for the previously identified work-in-kind and adds mitigation as a project cost feature. A Third Party Agreement, executed in August 1999 between Metro East Sanitary District and Canteen Creek Drainage District, eliminates the requirement for a fourth Project Cooperation Agreement for this project. The current non-Federal cost estimate of $15,875,000, which includes a cash contribution of $9,798,000, is an increase of $8,271,000 from the non-Federal cost estimate of $7,604,000 noted in the Project Cooperation Agreement, which included a cash contribution of $7,062,000. In a financial document dated 19 May 1999, the non-Federal sponsor indicated they are financially capable and willing to contribute the increased non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

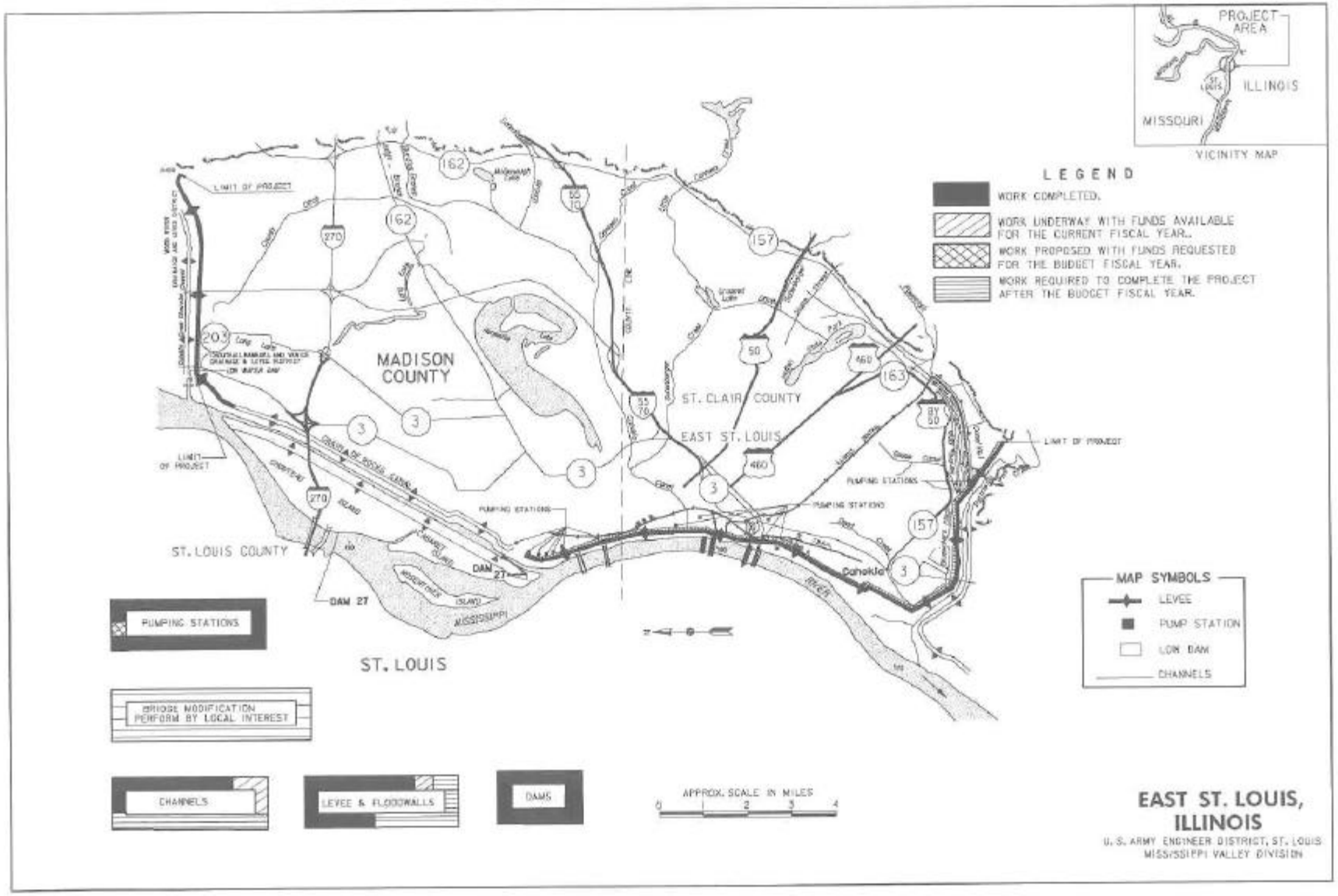
COMPARISON OF FEDERAL COSTS ESTIMATES: The current Federal cost estimate of $37,861,000 is the same as the last estimate presented to Congress (FY2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The project consists of rehabilitation of existing facilities and, for the major part of the project, will not affect environmental conditions except for short-term localized impacts. An environmental assessment and Finding of No Significant Impact was signed by the District Commander on 1 August 1991.

OTHER INFORMATION: Funds to initiate construction were appropriated in Fiscal Year 1988.

As a result of the drainage ditch clearing and excavation, mitigation was approved as a project cost per amendment Number 2 to the third Project Cooperation Agreement and was accomplished on project lands.

Fish and Wildlife mitigation costs are estimated to be $19,000.


PROJECT AREA
ILLINOIS
MISSOURI
VICINITY MAP
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
MADISON COUNTY
ST. CLAIR COUNTY
EAST ST. LOUIS
ST. LOUIS COUNTY
ST. LOUIS
LIMIT OF PROJECT
PUMPING STATIONS
DAM 27
MISSISSIPPI
CANAL OF ROCKS
Cahokia
MAP SYMBOLS
LEVEE
PUMP STATION
LOW DAM
CHANNELS
PUMPING STATIONS
BRIDGE MODIFICATION PERFORM BY LOCAL INTEREST
CHANNELS
LEVEE & FLOODWALLS
DAMS
APPROX. SCALE IN MILES
0 1 2 3 4
EAST ST. LOUIS, ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Loves Park, Illinois (Continuing)

LOCATION: Loves Park is located in Winnebago County in north central Illinois, just north of the city of Rockford.

DESCRIPTION: The project will provide 100-year protection for a highly urbanized portion of the city of Loves Park along Loves Park Creek. The project will divert excess runoff to detention areas. Floodwaters will be stored until channel stages subside such that the floodwaters may he evacuated from the detention areas. The protective works include 17,900 lineal feet of improved channel, 3 detention lakes, and a pump station. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986 (Public Law 99-662).

REMAINING BENEFIT-REMAINING COST RATIO: 9.3 to 1 at 8-5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.1 to I at 8-5/8 percent.

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 8-5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: Analysis based on General Design Memorandum dated March 1988.

SUMMARIZED FINANCIAL DATA			STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 21,000,000	Entire Project	74	Being determined
Estimated Non-Federal Cost		9,400,000			
Cash Contribution	$ 1,500,000				
Other	7,900,000				
			PHYSICAL DATA		
Total Estimated Project Cost		$ 30,400,000	Relocations: Bridges & Utilities Channels: 17,900 feet Pump Plants: 1		

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF FED COST
Allocations to 30 Sep 2000	$13,106,000	
Conference Allowance for FY 2001	4,010,000	
Allocation for FY 2001	756,000[1]	
Allocations through FY 2001	13,862,000	66
Allocation Requested for FY 2002	$1,600,000	74
Programmed Balance to Complete After FY 2002	$5,538,000	
Unprogrammed Balance to Complete After 2002	0	

JUSTIFICATION: The Loves Park Creek floodplain is dominated by residential neighborhoods, with some concentrations of industrial and commercial development. Flooding problems are caused by intense storms falling over the highly urbanized 7.8-square mile drainage basin of Loves Park Creek. Loves Park Creek, which bisects the city, has inadequate channel capacity and hydraulically inefficient bridges incapable of handling the amount of runoff produced by such storms (it is estimated that a 2-year flood would exceed existing channel capacity). Major floods along Loves Park Creek have been of a flash flood nature and of short duration (less than 1 day). Recent flooding occurred in April 1973, 1975, 1978, and June 1994. The flood of record occurred on April 20, 1973, with damage estimated at $2,780,000. Damages under present conditions of development are estimated at $9,060,000 at 1999 price levels. A 100-year flood would cause an estimated $20,100,000 in damage. Average annual damages caused by flooding along Loves Park Creek are estimated at $3,552,000 of which over 90 percent are attributable to residential damages. The annual damage and benefit calculations are based on the economic analysis included in the General Design Memorandum for Loves Park, IL, dated March 1988, approved November 1988, and revised September 1989. Average annual benefits, all flood control, are $3,056,000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Lands and Damages Acquisition Expense	$ 30,000
Continue Construction of Stage I, Channels and Pump Plant	1,100,000
Planning, Engineering, and Design	380,000
Supervision and Administration	90,000
Total	$1,600,000

[1] Reflects $642,000 reduction assigned as savings and slippage; $2,604,000 reprogrammed from the project; and $8,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

NON-FEDERAL COSTS: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way	$4,500,000[1]	$
Modify or relocate buildings, utilities, roads bridges (except railroad bridges), and other facilities where necessary in the construction of the project	2,480,000	
In accordance with Assistant Secretary of Army (Civil Works) decision of 17 May 1988, the Government shall apply credit for external compatible work associated with the construction of the Pebble Creek Dam	439,000	
Provide services for Planning, Engineering and Design and Supervision and Administration for relocation work	175,000	
Provide for contingency reserve on lands, easements, and relocations.	306,000	
Pay 5 percent of the cost allocated to flood control in cash to bring the total non-Federal share of flood control costs to 32 percent, and bear all cost of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities	1,500,000	28,000
Total Non-Federal Cost	$9,400,000	$28,000

The Non-Federal sponsor has agreed to make required payments concurrently with project construction.

[1] Includes $60,000 in sunk costs by the local sponsor prior to construction.

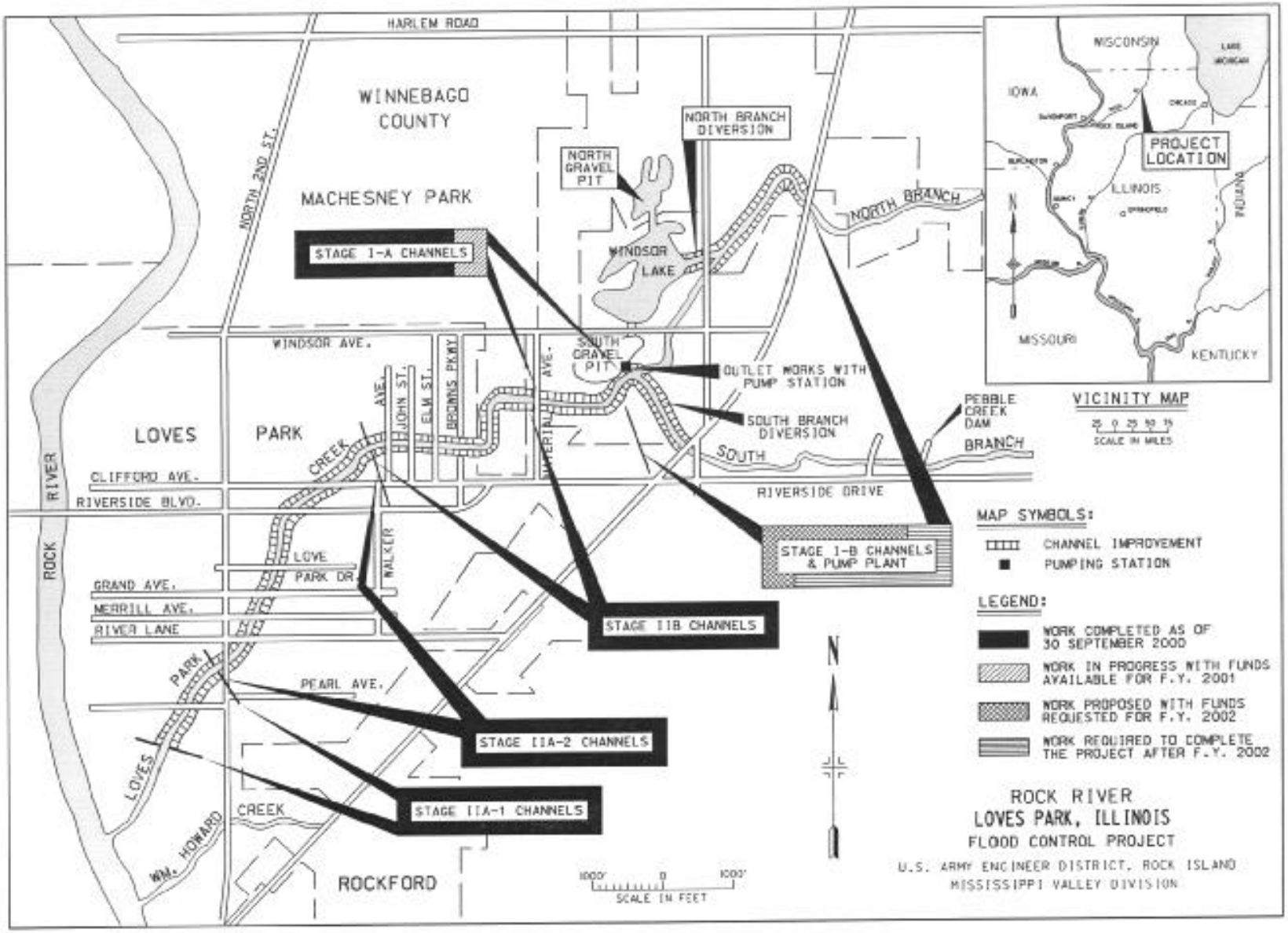
STATUS OF LOCAL COOPERATION: The City of Loves Park, Illinois, is the local sponsor for this project. The Local Cooperation Agreement was executed on 26 March 1991. The State of Illinois has executed an agreement with the city that provides for $3,550,000 in financial assistance for the project. The current non-Federal cost estimate of $9,400,000, which includes a cash contribution of $1,500,000, is a decrease of $170,000 from the non-Federal cost estimate of $9,570,000 noted in the Local Cooperation Agreement, which included a cash contribution of $1,375,000. The non-Federal sponsor is financially capable and willing to contribute the increased non-Federal share.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal Cost Estimate of $21,000,000 is the same as the last presented to Congress (FY 2001) and includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 310,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	-310,000
Total	$ 0

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was approved by the Council on Environmental Quality on 14 March 1980. In 1985, an Environmental Assessment (EA) was coordinated to address changes to the project incorporated in the General Reevaluation Report, which resulted in a Finding of No Significant Impact (FONSI) that was signed in December 1986. An EA addressing further changes identified in the General Design Memorandum has been prepared and was released for Public Review on 17 July 1990. The review resulted in a FONSI, which was signed on 11 October 1991. With regard to Section 404 requirements, the project is covered under a nationwide permit; however, Section 401, State Certification, was required from the State of Illinois. Certification was received on 24 September 1990.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1985. Funds to initiate construction were appropriated in FY 1990. Intensive efforts are underway with the local sponsor to ensure availability of right of way in order to maintain current construction schedule.


HARLEM ROAD
WINNEBAGO COUNTY
MACHESNEY PARK
NORTH 2ND ST.
NORTH GRAVEL PIT
NORTH BRANCH DIVERSION
STAGE I-A CHANNELS
WINDSOR LAKE
NORTH BRANCH
WINDSOR AVE.
SOUTH GRAVEL PIT
OUTLET WORKS WITH PUMP STATION
SOUTH BRANCH DIVERSION
PEBBLE CREEK DAM
SOUTH BRANCH
LOVES PARK
CREEK
JOHN ST.
ELM ST.
BROWNS PKWY
AVE.
CLIFFORD AVE.
RIVERSIDE BLVD.
RIVERSIDE DRIVE
ROCK RIVER
LOVE PARK DR.
WALKER
GRAND AVE.
MERRILL AVE.
RIVER LANE
STAGE I-B CHANNELS & PUMP PLANT
STAGE IIB CHANNELS
PARK
PEARL AVE.
STAGE IIA-2 CHANNELS
LOVES
STAGE IIA-1 CHANNELS
CREEK
WM. HOWARD
ROCKFORD
1000' 0 1000'
SCALE IN FEET
N
WISCONSIN
IOWA
ILLINOIS
INDIANA
MISSOURI
KENTUCKY
PROJECT LOCATION
VICINITY MAP
SCALE IN MILES
MAP SYMBOLS:
CHANNEL IMPROVEMENT
PUMPING STATION
LEGEND:
WORK COMPLETED AS OF 30 SEPTEMBER 2000
WORK IN PROGRESS WITH FUNDS AVAILABLE FOR F.Y. 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2002
ROCK RIVER
LOVES PARK, ILLINOIS
FLOOD CONTROL PROJECT
U.S. ARMY ENGINEER DISTRICT, ROCK ISLAND
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General - Flood Control

PROJECT: Comite River Diversion Channel, Louisiana (Continuing)

LOCATION: The Comite River basin comprises approximately 348 square miles and includes portions of Wilkinson and Amite Counties in Mississippi and East Feliciana and East Baton Rouge Parishes in Louisiana. The diversion project is located between the Comite and Mississippi Rivers north of the Town of Baker, Louisiana, and south of the Town of Zachary, Louisiana.

DESCRIPTION: The purpose of the project is to provide flood protection for the residents of the Comite River Basin. The authorized project will reduce stages on the Comite River from the diversion point to the confluence with the Amite River, on the Amite River from the confluence with the Comite River near Denham Springs to Port Vincent, and on Hurricane Creek, Robert Canal, and White's, Cypress and Baton Rouge Bayous. The Comite River is a right bank tributary of the Amite River, with a confluence near the city of Denham Springs, east of Baton Rouge, LA. The project provides for the construction of a 12-mile-long diversion channel located between the Comite and Mississippi Rivers north of the town of Baker, LA and south of the town of Zachary, LA. Included in the project are a diversion structure, a control structure at Lilly Bayou, four drop structures to handle intercepted drainage, three low flow augmentation pumps to supplement flows down stream of the diversion channel, improvements to Bayou Baton Rouge, White Bayou, and Cypress Bayou, and the provision of project mitigation areas. All work is programmed.

AUTHORIZATION: Water Resources Development Acts, of 1992, 1996 and 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 1.2 to 1 at 7-3/8 percent (October 2000).

TOTAL BENEFIT - COST RATIO: 1.2 to 1 at 7-3/8 percent (October 2000).

INITAL BENEFIT - COST RATIO: 1.2 to 1 at 7 3/8 percent.

BASIS OF BENEFIT - COST RATIO: Benefits are from the design memorandum approved in August 1996 at October 1995 price levels updated to October 2000 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST	STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$106,000,000		Entire Project	0	Being determined
Estimated Non-Federal Cost		47,000,000				
Cash Contributions	$ 8,000,000					
Other Costs	39,000,000					
Total Estimated Project Cost		$153,000,000				
Allocations to 30 September 2000		8,131,000				
Conference Allowance for FY 2001		10,000,000				
Allocation for FY 2001		3,230,000[1]				
Allocations through FY 2001		11,361,000	11			
Allocation Requested for FY 2002		500,000	11			
Programmed Balance to Complete After FY 2002		$ 94,139,000				
Unprogrammed Balance to Complete After FY 2002		$ 0				

PHYSICAL DATA

CHANNELS AND CANALS: 12 miles.
LEVEES AND FLOODWALLS: An earthen closure will be constructed at Brooks Lake.
PUMPING STATIONS: Three 1.5 cfs
FLOODWAY CONTROL AND DIVERSION STRUCTURES: Comite River Diversion Structure
Lilly Bayou Control Structure
Four drop structures
MITIGATION: 1,484 acres to include planting of trees on 765 acres.

[1] Reflects $1,600,000 reduction assigned as savings and slippage, and $5,150,000 reprogrammed from the project and $20,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: Flooding within the project area originates from excessive rainfall resulting in headwater and backwater overflow of the Comite River and tributary systems. Between 1973 and 1983, four major floods occurred in the subbasin. The maximum flood of record in the Amite River basin occurred in 1983 and caused approximately $172,000,000 in damages, (1983 price levels) including $48,000,000 occurring in the Comite River subbasin. East Baton Rouge Parish experienced $65,200,000 in damages, with 75 percent occurring in the Comite River subbasin. Flooding up to eight feet above the first floor level was reported with inundation of structures lasting from a few hours to several days. About 55,000 acres of land were flooded and a total of 1,550 urban residences, 20 rural residences and 37 urban businesses were flooded in East Baton Rouge Parish. The total average annual benefits, all flood control, are $13,250,000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Federal Real Estate	$ 106,000
Planning, Engineering & Design	394,000
Total	$ 500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal area.	$14,883,000	$
Provide during the period of construction a cash contribution equal to 5 percent of total project cost allocated to flood control.	8,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges) where necessary for the construction of the project.	24,117,000	
Pay all cost allocated to operation, maintenance,repair, rehabilitation, and replacement of the project features.		539,000
Total Non-Federal Cost	$47,000,000	$ 539,000

The non-Federal sponsor has agreed to make all payments of first costs concurrently with project construction.

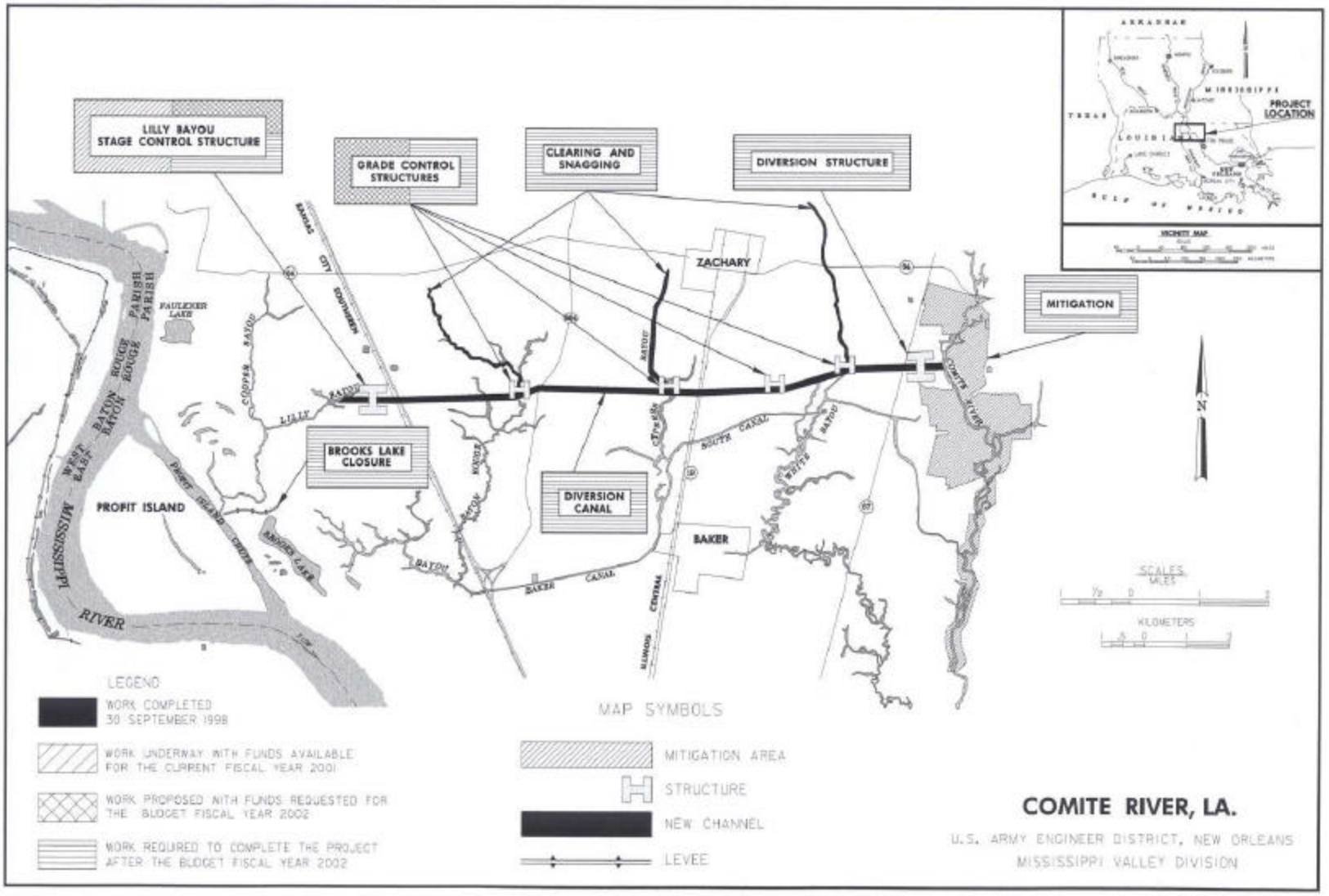
STATUS OF LOCAL COOPERATION: The construction local sponsor is the Louisiana Department of Transportation and Development. The operation and maintenance (O&M) local sponsor is the City/Parish of East Baton Rouge. The terms of the Project Cooperation Agreement (PCA) are currently being negotiated. The PCA is scheduled for execution in June 2001.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $106,000,000 is a decrease of $1,200,000 from the latest ($107,200,000) presented to Congress (FY 2001). This change includes the following items:

ITEM	AMOUNT
Authorized Modification	$ -1,700,000
Price Escalation on Construction Features	500,000
TOTAL	$ -1,200,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency on April 10, 1991. An Environmental Assessment which documents changes to the authorized project has been completed and a Finding of No Significant Impact was signed on 19 December 1995.

OTHER INFORMATION: Funds to initiate Preconstruction Engineering and Design were appropriated in FY 1991. Funds to initiate construction were appropriated in Fiscal Year 1999. Water Resources Development Act of 1999, dated 17 August 1999 (PL106-53) Section 371 modified the project to include the costs of highway relocations to be cost shared as a project construction feature.


LILLY BAYOU STAGE CONTROL STRUCTURE
GRADE CONTROL STRUCTURES
CLEARING AND SNAGGING
DIVERSION STRUCTURE
MITIGATION
ZACHARY
BROOKS LAKE CLOSURE
DIVERSION CANAL
BAKER
PROFIT ISLAND
MISSISSIPPI RIVER
PROJECT LOCATION
LEGEND
WORK COMPLETED 30 SEPTEMBER 1998
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
MAP SYMBOLS
MITIGATION AREA
STRUCTURE
NEW CHANNEL
LEVEE
COMITE RIVER, LA.
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Lake Pontchartrain, Louisiana, and Vicinity (Hurricane Protection)(Continuing)

LOCATION: The project is located in St. Charles, Jefferson, Orleans, St. Bernard and St. Tammany Parishes in southeast Louisiana in the general vicinity of New Orleans, adjacent to Lake Pontchartrain.

DESCRIPTION: The recommended plan consists of a new levee north of US Highway 61, from the east Bonnet Carré Spillway guide levee to the Jefferson-St. Charles Parish boundary; a floodwall along the Jefferson-St. Charles Parish line; an enlarged levee along the Jefferson Parish lakefront; an enlarged New Orleans lakefront levee landward of the seawall including parallel flood protection on the 17th Street, Orleans Avenue, and London Avenue outfall canals; a new and enlarged levee and floodwall along both sides of the Inner Harbor Navigation Canal (IHNC); a new levee and floodwall along the lakefront from the airport to South Point; an enlarged levee from South Point to the Gulf Intracoastal Waterway (GIWW); an enlarged levee and new floodwall along the northside of the Mississippi River-Gulf Outlet (MR-GO) and GIWW; a new levee in the Chalmette area from the IHNC levee along the south bank of the MR-GO to approximately 2-1/2 miles northwest of Verret and west to the Mississippi River levee near Caernarvon; a strengthened Mandeville seawall on the north shore at present height; and a new pumping station and vertical lift gates for the Florida Avenue Complex. The parallel protection work for Orleans and London Avenue Outfall canals is unprogrammed after FY 1998.

AUTHORIZATION: Flood Control Act of 1965; Water Resources Development Acts of 1974, 1986, 1990, 1992, and 1996.

REMAINING BENEFIT TO REMAINING COST RATIO: 4.1 to 1 at 3-1/8 percent.

TOTAL BENEFIT - COST RATIO: 3.0 to 1 at 3-1/8 percent.

INITIAL BENEFIT-COST RATIO: 17.6 to 1 at 3-1/8 percent (FY 1967).

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation dated December 1982 at 1981 price levels.

SUMMARIZED FINANCIAL DATA			
Estimated Federal Total Appropriation Requirement			$527,000,000
Programmed Construction		$525,050,000	
Unprogrammed Construction		1,950,000	
Future Non-Federal Reimbursement			7,000,000
Programmed Construction		7,000,000	
Unprogrammed Construction		0	
Estimated Federal Cost (Ultimate)			520,000,000
Programmed Construction		518,050,000	
Unprogrammed Construction		1,950,000	
Estimated Non-Federal Cost			222,000,000
Programmed Construction		205,894,000	
Cash Contribution	$ 89,989,000		
Other Costs	108,905,000		
Reimbursements:			
Hurricane Protection	7,000,000		
Unprogrammed Construction		16,106,000	
Cash Contribution	15,133,000		
Other Costs	973,000		
Reimbursements	0		

STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
New Orleans East Unit	90	Being determined
New Orleans West Unit	50	Being determined
Mandeville Unit	100	March 1996 [1]
Chalmette Unit	98	Being determined
Entire Project	80	Being determined

[1] Work accomplished by the Fiscal Year 1992 Dire Emergency Supplemental under Appropriation 96x3125, Flood Control and Coastal Emergencies.

SUMMARIZED FINANCIAL DATA (Continued)

Total Estimated Programmed Construction Cost	$723,944,000	
Total Estimated Unprogrammed Construction Cost	18,056,000	
Total Estimated Project Cost	$742,000,000	
		ACCUM
Allocations to 30 September 2000	411,646,000	PCT OF EST
Conference Allowance for FY 2001	10,000,000	FED COST
Allocation for FY 2001	14,180,000[1]	
Allocations through FY 2001	425,826,000	81
Allocation Requested for FY 2002	7,500,000	82
Programmed Balance to Complete after FY 2002	$ 91,724,000	
Unprogrammed Balance to Complete after FY 2002	$ 1,950,000	

PHYSICAL DATA

Levees: Average Height: 16 feet
Length: 80 miles

Dam Closures: 2

Pumping Plant: 1

Control Valve Structures: 3

Drainage Structures: 9

Floodwalls: 17.9 miles

Floodgates: 2

JUSTIFICATION: The lowlands in the Lake Pontchartrain tidal basin are subject to tidal overflow. The Greater New Orleans Metropolitan Area which lies in this basin will continue its rapid economic development in the future years even though severe damages have resulted from several hurricanes in the past years. Hurricane damages result from surges entering Lake Pontchartrain from Lake Borgne through natural tidal passes at the Rigolets and Chef Menteur Passes and the Inner Harbor Navigation Canal. The surges are intensified by local wind effects and the combination of waves and surges causing overtopping of the pre-project protective works along the shores of Lake Pontchartrain. The eastern portion of the area is also subject to flooding by surges and waves that move directly from Lake Borgne and overtop the then existing inadequate protective system seaward of the developed land areas. As a result, residences and industrial and commercial establishments suffer damage, business activities are disrupted, lives are endangered, and hazards to health are created. Hurricanes much more severe than any of record are possible. In the event of the occurrence of such a severe hurricane, catastrophic property damage and loss of human life would be

[1] Reflects $1,600,000 reduction assigned as Savings and Slippage, $5,800,000 reprogrammed to the project, and $20,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

experienced. Local interests have requested protection against these threats to life and property. Hurricane Betsy in September 1965 caused extensive damage and flooding of urban areas of the New Orleans area to depths of up to 10 feet. Hurricane Camille occurred in the project area in August 1969 and flooded areas along the Inner Harbor Navigation Canal. Extensive flooding and overtopping of levees would have occurred in the project area in September 1974 if Hurricane Carmen had continued on its predicted course. In 1985 Hurricane Juan caused extensive flooding in the St. Charles Parish area. The Lake Pontchartrain hurricane protection project will provide protection from similar occurrences. The project will provide protection against flooding from the Standard Project Hurricane (SPH). The average annual benefits, all flood control, are $95,771,000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

NEW ORLEANS EAST UNIT	
Surveys and Layouts	$ 19,000
Planning, Engineering and Design	50,000
Supervision and Administration	104,000
Subtotal	$ 173,000
NEW ORLEANS WEST UNIT	
Initiate:	
St. Rose Canal Drainage Structure	1,327,000
Reach 2, 2nd Lift	2,420,000
Initiate and Complete:	
Reach 4, 2nd Lift	180,000
Complete:	
Reach 5, 2nd Lift	434,000
Reach 1A, 2nd Lift	200,000
Federal Real Estate Support	15,000
Survey and Layouts	50,000
Planning, Engineering and Design	511,000
Supervision and Administration	100,000
Subtotal	$ 5,237,000
CHALMETTE UNIT	
Initiate:	
Sta 1121-1560. Final Enlgt	1,500,000
Initiate and Complete:	
Floodwall Capping Verrett	489,000
Surveys and Layouts	26,000
Supervision and Administration	75,000
Subtotal	$ 2,090,000
Total	$ 7,500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1965 and the Water Resources Development Act of 1974, the non-Federal sponsors must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and right-of-ways, and borrow and excavated or dredged material disposal areas.	$ 44,033,000	$
Accomplish alterations to roads, pipelines, cables, wharves, oil wells, and any other facilities necessary for construction of the project.	19,916,000	
Pay 30 percent of the total project cost, including the items listed above and a cash contribution or equivalent work specifically undertaken as an integral part of the project after authorization and in accordance with construction schedules as required by the Chief of Engineers, excluding a reimbursement to the Federal Government for costs allocated pursuant to the Water Resources Development Act of 1974.	151,051,000	
Reimburse the Federal Government for costs allocated pursuant to the Water Resources Development Act of 1974.	7,000,000	
Pay all costs of operations, maintenance, repair, rehabilitation, and replacements of all features of the project works.		1,256,000
Total Non-Federal Costs	$222,000,000	$1,256,000

In addition, local interests, through the combined efforts of the State of Louisiana, local levee and drainage districts, and parish police juries, have spent an estimated $25,366,000 between 1930-1963, based on the best cost records available, to improve and maintain the hurricane protection system existing prior to project authorization. Available costs of record are as follows:

Combination of State of Louisiana and Lake Borgne Levee District and Chalmette Back Levee District on the Chalmette Back Levee Protection Systems	$ 4,410,000
Orleans Levee District	12,010,000
Port of New Orleans (levees along Industrial Canal)	924,000
Pontchartrain Levee District	5,022,000
Fourth Drainage District of Jefferson Parish	3,000,000
Total	$25,366,000

A very severe hurricane, "Betsy," occurred in the project area in September 1965, just prior to the authorization of the project in October 1965. Considerable damage was done to many of the existing levees, and local interests immediately instituted an accelerated rehabilitation program, with the view of restoring and strengthening existing protection prior to succeeding hurricane seasons. Any work performed by the non-federal interests after project authorization, that conforms to the project design criteria and alignment, is considered as work-in-kind in lieu of a cash contribution.

STATUS OF LOCAL COOPERATION: Assurances are required for the two independently justified plans.

1. Chalmette Area Plan:

a. Orleans Levee District: New agreements of assurances covering all project cooperation requirements and a deferred payment plan as authorized by the Water Resources Development Act of 1974 were executed on 30 March 1976. These assurances were accepted on behalf of the United States on 7 December 1977.

b. St. Bernard Parish Police Jury and Lake Borgne Basin Levee District: New joint agreements of assurances covering all project cooperation requirements and a deferred payment plan as authorized by the Water Resources Development Act of 1974, were executed on 2 April 1976. These assurances were accepted on behalf of the United States on 7 December 1977.

2. High Level Plan:

a. Orleans Levee District: For the Barrier Plan, new agreements of assurances covering all project cooperation requirements and a deferred payment plan as authorized by the Water Resources Development Act of 1974, were executed on 30 March 1976. These assurances were accepted on behalf of the United States on 7 December 1977. Amended assurances for the High Level Plan were executed by the local sponsor on 29 May 1985, and accepted by the United States on 21 June 1985.

b. St. Tammany Parish: The Louisiana Office of Public Works executed an act of assurance dated 8 November 1976, agreeing to fulfill all project cooperation requirements for that portion of the project in St. Tammany Parish. These assurances were accepted on behalf of the United States on 7 December 1977. Amended assurances for the High Level Plan are required; however, due to failure of the local sponsor to agree to the items of local cooperation, this portion of the project has an indefinite completion date.

c. Pontchartrain Levee District: New agreements of assurances covering all project cooperation requirements and a deferred payment plan as authorized by the Water Resources Development Act of 1974, were executed on 20 September 1976. On 8 November 1976, the Louisiana Office of Public Works agreed to lend financial assistance above $100,000 to the Pontchartrain Levee District for that portion of the Barrier Plan which is the responsibility of that levee district. These assurances were accepted on behalf of the United States on 7 December 1977. Supplemental assurances for the High Level Plan were executed by the Pontchartrain Levee District for the St. Charles Parish portion of the project on 20 April 1987, and accepted on behalf of the United States on 7 August 1987.

d. East Jefferson Levee District: Supplemental assurances for the High Level Plan were executed by the East Jefferson Levee District for the Jefferson Parish portion of the project on 16 January 1987. A financial plan was received on 25 November 1987, and accepted on behalf of the United States on 21 December 1987. These levees were previously the responsibility of the Pontchartrain Levee District.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $527,000,000 is an increase of $2,000,000 from the latest estimate ($525,000,000) presented to Congress (FY 2001). This change includes the following item:

Item	Amount
Price Escalation on Construction Features	$ 2,000,000
Total	$ 2,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 17 January 1975. By court order dated 30 December 1977, a revised Environmental Impact Statement was ordered. A draft revised Environmental Impact Statement for the High Level Plan and the Reevaluation Report, which documents the proposal to adopt that plan instead of the Barrier Plan, were released to the public and filed with the Environmental Protection Agency on 16 December 1983. The final revised Environmental Impact Statement was filed with the Environmental Protection Agency on 7 December 1984.

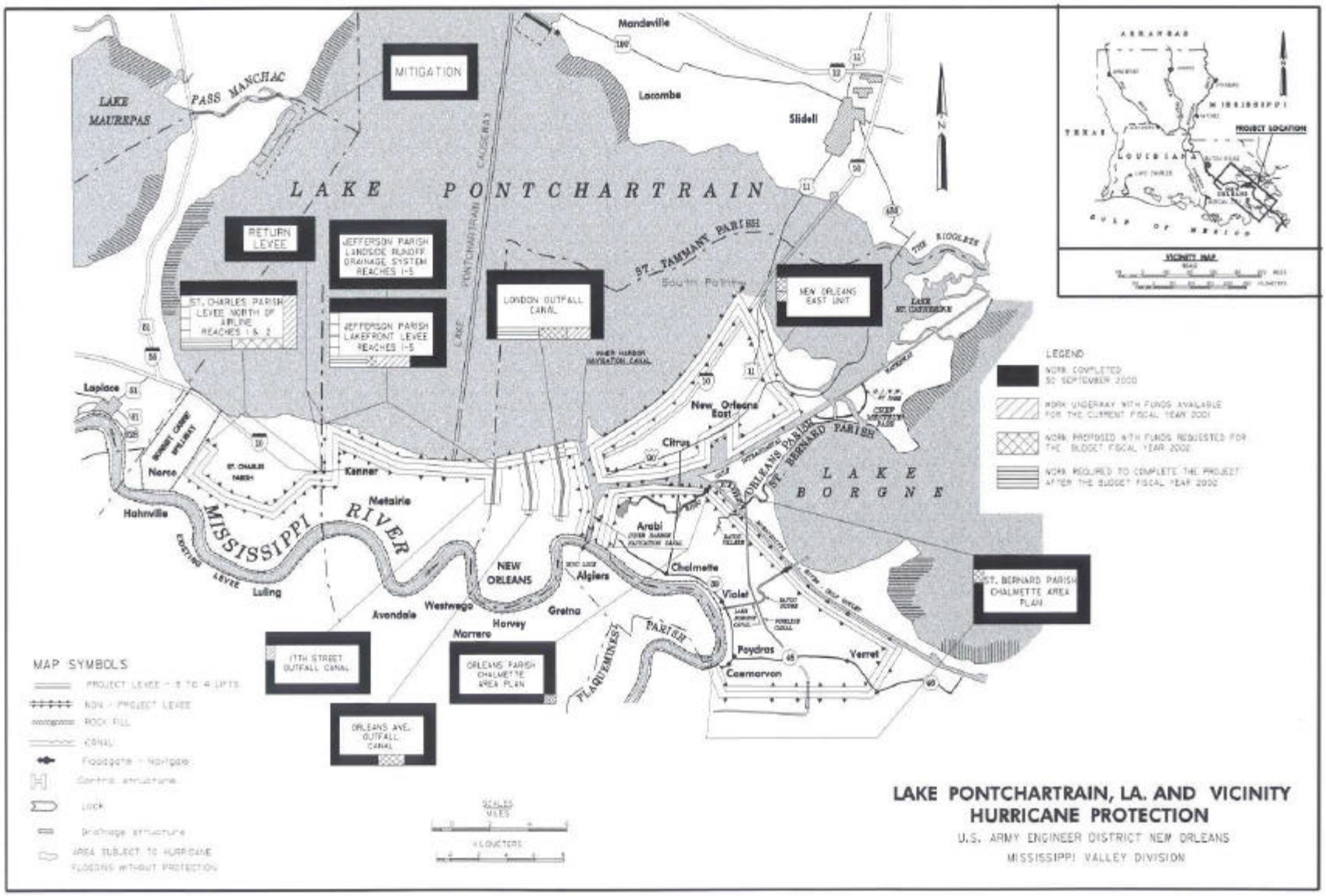
OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1966, and funds to initiate construction were appropriated in Fiscal Year 1967.

Authorizations

		Estimated Cost and Year of Price Level
FC Act of 1965 dated 27 October 1965 (PL 89-298) (HD 231/89/1)	A program for protection from hurricane flood levels at New Orleans, LA and surrounding areas by means of levees, floodwalls, control structures, navigation structures, locks, dams and drainage structures.	$56,235,000 (1961)[1]
Water Resources Development Act of 1974 dated 7 March 1974 (PL 93-251) Section 92	A modification of the FC Act of 1965 (PL 89-298) to provide that non-Federal public bodies may agree to pay the unpaid balance of the cash payment due with interest, in yearly installments.	
Water Resources Development Act of 1986, dated 17 November 1986 (PL 99-662), Section 805	A modification of the project to include construction of a floodwall with sluice gates or other necessary means to ensure that hurricane-flood protection within Jefferson Parish will be unimpaired as a result of any pumping station constructed by local interests.	$3,500,000 (1985)
Water Resources Development Act of 1990, dated 28 November 1990 (PL 101-640) Section 116(k)	A restudy of and report on project benefits to determine whether or not sponsors have received expected benefits and whether or not there should be a reallocation of costs as a result of any unrealized expected benefits. No non-Federal payment for the St. Bernard Parish portion of project was required during the study period (28 November 1990 - 28 November 1991)	
Water Resources Development Act of 1992, dated 31 October 1992 (PL 102-580) Section 102(j)(2)	A reevaluation of the reallocation of project cost based on the benefit study required by the WRDA 1990 Section 116(k)	

[1] This is net cost to the Federal Government. The gross cost is $60,185,000. The difference is $3,950,000, which is capitalized value at 3-1/8 percent interest over 100 years for O&M on Rigolets Lock which is to be contributed by local interests and used by the Federal government for project construction.

Water Resources Development Act of 1992, dated 31 October 1992 (PL 102-580) Section 102(j)(1)	A modification to the project to include conveying landsite runoff from the Jefferson Parish Lakefront levee from the levee right-of-way to the street drainage system.
Water Resources Development Act of 1996, dated 12 October 1996 (PL 104-303) Section 325	A modification to the project to provide that St. Bernard Parish, Louisiana, and the Lake Borgne Basin Levee District, Louisiana, shall not be required to pay the unpaid balance, including interest, of the non-Federal cost-share of the project.
Water Resources Development Act of 2000, dated 11 December 2000 (PL 106-541) Section 433	A post authorization change report to include structural modifications to the seawall providing protection along the south shore of Lake Pontchartrain not later than 180 days after WRDA enactment.


LAKE PONTCHARTRAIN
LAKE MAUREPAS
PASS MANCHAC
MITIGATION
RETURN LEVEE
JEFFERSON PARISH LANDSIDE RUNOFF DRAINAGE SYSTEM REACHES 1-5
ST. CHARLES PARISH LEVEE NORTH OF AIRLINE REACHES 1 & 2
JEFFERSON PARISH LAKEFRONT LEVEE REACHES 1-5
LONDON OUTFALL CANAL
NEW ORLEANS EAST UNIT
ST. BERNARD PARISH CHALMETTE AREA PLAN
17TH STREET OUTFALL CANAL
ORLEANS PARISH CHALMETTE AREA PLAN
ORLEANS AVE. OUTFALL CANAL
MISSISSIPPI RIVER
LAKE BORGNE
Mandeville
Lacombe
Slidell
Lapalace
Norco
Hahnville
Kenner
Metairie
Luling
Avondale
Westwego
Harvey
Marrero
Gretna
NEW ORLEANS
Algiers
Arabi
Chalmette
Violet
Poydras
Caernarvon
Verret
New Orleans East
Citrus
ST. TAMMANY PARISH
ST. BERNARD PARISH
ORLEANS PARISH
PLAQUEMINES PARISH
MAP SYMBOLS
LEGEND
VICINITY MAP
PROJECT LOCATION
LAKE PONTCHARTRAIN, LA. AND VICINITY
HURRICANE PROTECTION
U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Larose to Golden Meadow, Louisiana (Hurricane Protection) (Continuing)

LOCATION: The project is located in Lafourche Parish, Louisiana, about 28 miles southwest of New Orleans and about 25 miles inland from the Gulf of Mexico along Bayou Lafourche, south of the Gulf Intracoastal Waterway, extending from Larose to Golden Meadow, a distance of about 16 miles.

DESCRIPTION: The project consists of a ring levee approximately 40 miles in length encircling the areas along Bayou Lafourche from Larose to Golden Meadow and extending approximately 9,800 feet from each side of the bayou. Enlargement of about 3 miles of the existing levee at Golden Meadow and construction of floodgates on Bayou Lafourche at the upper and lower limits of the protection system will be used for navigation and hurricane protection purposes. Approximately 8 miles of low interior levees and eight multi-barrelled culverts controlled by flap gates are needed to regulate intercepted drainage. All work is programmed.

AUTHORIZATION: Flood Control Act of 1965.

REMAINING BENEFIT - REMAINING COST RATIO: 17.6 to 1 at 3-1/4 percent.

TOTAL BENEFIT - COST RATIO: 1.9 to 1 at 3-1/4 percent.

INITIAL BENEFIT - COST RATIO: 1.4 to 1 at 3-1/4 percent (FY 1972).

BASIS OF BENEFIT - COST RATIO: Benefits are based on General Design Memorandum Number 1, and Supplement Number 1, approved 18 May 1973 at 1971 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 81,000,000		Entire Project	90	Being determined
Estimated Non-Federal Cost		35,000,000				
Cash Contribution	$ 6,098,000					
Other	28,902,000					
Total Estimated Project Cost		$116,000,000				
Allocations to 30 September 2000		73,834,000				
Conference Allowance for FY 2001		2,414,000				
Allocation for FY 2001		2,023,000 [1]				
Allocations through FY 2001		75,857,000	94			
Allocation Requested for FY 2002		1,500,000	96			
Programmed Balance to Complete After FY 2002		$ 3,643,000				
Unprogrammed Balance to Complete After FY 2002		0				

PHYSICAL DATA

Levees	Floodgates	Drainage Structures
Loop levee approximately 40 miles in length along both banks of Bayou Lafourche; enlargement of three miles of levees at Golden Meadow; eight miles of low interior levee to regulate intercepted drainage.	2	Eight multi-barreled culverts

JUSTIFICATION: The project area is of great economic importance to the State of Louisiana, and includes lands and improvements having an aggregate value of approximately $203,904,000 (1995 prices). The population of the area was 20,000 in 1980 and has increased steadily. While oil and gas production, commercial fisheries, and related service industries dominate the economy of the area, there is a wide spectrum of economic activity.

Situated within a region of high hurricane incidence (on the average, two hurricanes threaten the Louisiana coast every three years), the project area is highly vulnerable to overflow from the tidal surges which accompany hurricanes. The highest flood stage during the hurricane of 1915 was 5.5 feet at Golden Meadow, taken from a high-water mark. Should a hurricane similar to that of 1915 move through the area, damages of approximately $10,962,000 (1995 prices) could be expected. Hurricane Juan (1985) was accompanied by flooding of 6.6 feet, as recorded on the Leeville gauge. Damages sustained during Hurricane Juan were $35,000,000 and at current prices (1995), $44,866,000. The flood duration was from two days to one week. Damages began at 3 feet, with significant damages at 4.5 feet. Should a major hurricane approaching the standard project hurricane in intensity move through the area, the entire project area would be submerged in

[1] Reflects $386,000 reduction assigned as savings and slippage and $5,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

the tidal surge, and monetary damages would likely amount to $86,811,000 (1995 prices). This damage would include minor crop losses, but the bulk of the damage would consist of physical damage to residential, commercial, and industrial establishments. Residential and commercial facilities are valued at $52,000,000 (1971 prices), excluding contents, plus $3,500,000 (1971 prices), or $207,713,000 (1995 price levels). Average annual damages with the project are negligible (zero), while without the project they are $14,947,000 (1995 price levels). Flood damages prevented on future developments were determined by projecting future damages at rates equal to the projected population growth and bringing them back to present value by applying a discount rate of 3-1/4 percent. Present values were then amortized for the life of the project to obtain average annual benefits on future damages prevented. The relationship between depth of flooding and percent damage of structures and contents was derived from detailed studies of flood damages in the coastal area of Louisiana for four hurricanes, Carla (1961), Hilda (1964), Betsy (1965) and Camille (1969). These in-depth studies were made for flood insurance rate studies conducted by the U.S. Army Corps of Engineers for the Federal Insurance Administration.

Lafourche Parish has been determined to be an area of "substantial and persistent" unemployment.

The project will provide protection against flooding from hurricanes having a frequency of occurrence of once in 100 years. The average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	$ 3,559,000
Area Redevelopment	24,000
Total	$ 3,583,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Complete Section D - South, 3rd Lift and D-North 2nd Lift	$ 536,000
Complete Mitigation 2nd Lift	472,000
Surveys and Layouts	32,000
Planning, Engineering and Design	250,000
Supervision and Administration	210,000
Total	$ 1,500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1965, the Non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, and rights-of-way, including borrow and dredged material disposal areas (as applicable).	$ 4,973,000	$
Accomplish alterations to roads, pipelines, cables, wharves, oil wells, and any other facilities necessary for construction of the project.	$ 7,966,000	
Pay 30 percent of the total project cost, to include the items listed above and a cash contribution or equivalent work specifically undertaken as an integral part of the project after authorization and in accordance with construction schedules as required by the Chief of Engineers.	$22,061,000	
Bear all cost of operation and maintenance including replacements.		219,000
Total Non-Federal Cost	$35,000,000	$ 219,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

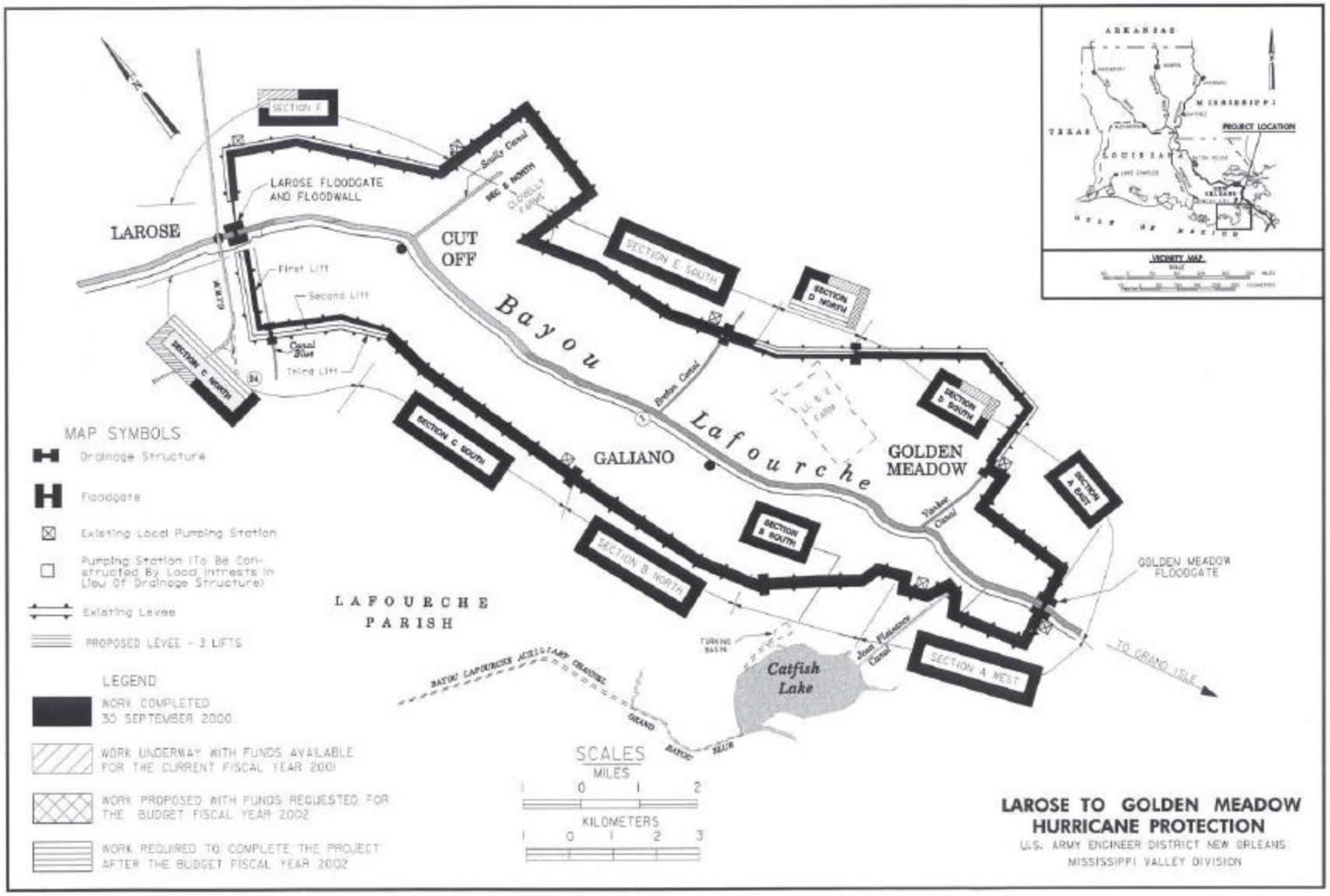
STATUS OF LOCAL COOPERATION: Assurances covering all requirements of local cooperation were received from the South Lafourche Levee District and accepted on behalf of the United States on 29 August 1973. The South Lafourche Levee District has requested and received funds from the State of Louisiana for rights-of-way acquisition and relocations required to support construction work. In addition to lands and damages and relocations, the South Lafourche Levee District has accomplished levee construction, pumping station and lateral levee construction, and administrative/operating work.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $81,000,000 is an increase of $1,000,000 from the last estimate presented to Congress (FY 2001). This change includes the following item:

Item	Amount
Price Escalation on Construction Features	$1,000,000
Total	$1,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with the Council on Environmental Quality on 13 May 1974. A draft supplement to the Environmental Impact Statement covering the revised levee alignments, previously unidentified wetland impacts, and necessary mitigation, was filed with the Environmental Protection Agency on 20 July 1984, and the final supplement was filed with the Environmental Protection Agency on 1 March 1985. An Environmental Assessment covering the revised levee alignment for Section D-North was distributed for review on 3 December 1990, and a Finding of No Significant Impact for the revised alignment was signed on 8 March 1991.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1967, and funds to initiate construction were appropriated in Fiscal Year 1972.


LAROSE TO GOLDEN MEADOW
HURRICANE PROTECTION
U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
MISSISSIPPI VALLEY DIVISION
LAROSE
LAROSE FLOODGATE AND FLOODWALL
CUT OFF
Bayou Lafourche
GALIANO
GOLDEN MEADOW
GOLDEN MEADOW FLOODGATE
LAFOURCHE PARISH
Catfish Lake
TO GRAND ISLE
SECTION F
SECTION E NORTH
SECTION E SOUTH
SECTION D NORTH
SECTION D SOUTH
SECTION C NORTH
SECTION C SOUTH
SECTION B NORTH
SECTION B SOUTH
SECTION A EAST
SECTION A WEST
First Lift
Second Lift
Third Lift
MAP SYMBOLS
Drainage Structure
Floodgate
Existing Local Pumping Station
Pumping Station (To Be Constructed By Local Interests In Lieu Of Drainage Structure)
Existing Levee
PROPOSED LEVEE - 3 LIFTS
LEGEND
WORK COMPLETED 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
SCALES
MILES
KILOMETERS
VICINITY MAP
PROJECT LOCATION

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: New Orleans to Venice, Louisiana (Hurricane Protection)(Continuing)

LOCATION: The project is located in Plaquemines Parish, along the east bank of the Mississippi River from Phoenix, Louisiana, approximately 28 miles southeast of New Orleans, Louisiana to Bohemia, Louisiana and from St. Jude, Louisiana, on the west bank approximately 39 miles southeast of New Orleans, Louisiana to Venice, Louisiana.

DESCRIPTION: The recommended plan on the west side of the Mississippi River consists of enlarging approximately 3 miles of existing back levee between St. Jude and City Price, Louisiana; enlarging approximately 13 miles of existing back levee between City Price and Tropical Bend, Louisiana (Reach "A") and installing two 54-inch flap-gated corrugated metal culverts; enlarging approximately 12 miles of existing back levee between Tropical Bend and Fort Jackson, Louisiana (Reach "B-1") and constructing a floodgate at Empire, Louisiana; enlarging approximately 9 miles of existing back levee between Fort Jackson and Venice, Louisiana (Reach "B-2"); and enlarging approximately 34 miles of existing Mississippi River levee from Mile 10 to Mile 44 above Head of Passes (West Bank River Levee). On the east side of the Mississippi River, the recommended plan consists of enlarging approximately 16 miles of existing back levee between Phoenix, and Bohemia, Louisiana (Reach "C") and installing ten flap-gated culverts. All work is programmed.

AUTHORIZATION: Flood Control Act of 1962.

REMAINING BENEFIT-REMAINING COST RATIO: 4.8 to 1 at 2-7/8 percent.

TOTAL BENEFIT-COST RATIO: 2.4 to 1 at 2-7/8 percent.

INITIAL BENEFIT-COST RATIO: 2.4 to 1 at 2-7/8 percent (FY 1964).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in February 1972 at 1971 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$173,000,000	
Estimated Non-Federal Cost		74,000,000[1]	
Cash Contribution	$29,333,000		
Other	44,667,000		
Total Estimated Project Cost		$247,000,000[1]	
Allocations to 30 September 2000		145,228,000	
Conference Allowance for Fiscal Year 2001		1,800,000	
Allocation for Fiscal Year 2001		1,508,000[2]	
Allocation through Fiscal Year 2001		146,736,000	85
Allocation Requested for Fiscal Year 2002		2,000,000	86
Programmed Balance to Complete After Fiscal Year 2002		$ 24,264,000	
Unprogrammed Balance to Complete After Fiscal Year 2002		$ 0	

STATUS: (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
St. Jude to City Price	60	Being determined
Reach "A" - City Price to Tropical Bend	99	Being determined
Reach "B-1" - Tropical Bend to Fort Jackson	92	Being determined
Reach "B-2" - Fort Jackson to Venice	99	Being determined
Reach "C"-Phoenix to Bohemia	90	Being determined
West Bank River Levee	60	Being determined
Entire Project	80	Being determined

Each reach, when complete, will provide interim protection from flooding.

[1] Cost does not include $505,000 Non-Federal work authorized by the Post Authorization Change Report for St. Jude to City Price Levee Enlargement, approved on 6 March 1992.

[2] Reflects $288,000 reduction assigned as savings and slippage and $4,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

PHYSICAL DATA

Reach	Levees and Floodwalls	Drainage Structure
St. Jude to City Price	Enlarge approximately 3 miles	None
"A" - City Price to Tropical Bend	Enlarge approximately 13 miles	Two 54" flap-gated corrugated metal culverts.
"B-1" - Tropical Bend to Fort Jackson	Enlarge approximately 12 miles	Floodgate at Empire
"B-2" - Fort Jackson to Venice	Enlarge approximately 9 miles	None
"C" - Phoenix to Bohemia	Enlarge approximately 16 miles	Ten flap-gated culverts
West Bank River Levee	Enlarge approximately 34 miles of levee on the Mississippi River west bank from Mile 10 to Mile 44 above Head of Passes.	None

JUSTIFICATION: The project will provide protection from hurricane tidal overflow to a major part of the developed and inhabited area along the Mississippi River delta. Approximately seventy-five percent of the population and seventy percent of the improved lands within the delta are contained in the project area. Hurricanes in the past have caused overtopping of the existing protective works, resulting in extensive damage to structures, industries, other urban and rural developments, crops, and livestock. Evacuation of inhabitants has been required frequently. The most recent storm causing extensive damages, Hurricane Camille, occurred on 17 August 1969. Severe damages were sustained in Reaches B-1 and B-2 (Empire to Venice), and somewhat lesser damages were sustained in Reach A (Port Sulphur to Empire). Estimated flood damages sustained in the project area due to hurricanes are as follows:

Year of Hurricane	Actual Damages Sustained	Damages at Present Value and Conditions of Development
September 1915	$ 2,325,000	$159,880,000
September 1956 (Flossy)	1,709,000	15,572,000
September 1957 (Esther)	1,180,000	10,873,000
September 1965 (Betsy)	45,500,000	307,544,000
August 1969 (Camille)	62,500,000	301,235,000
October 1985 (Juan)	46,000,000	68,192,000

The present value and type of property subject to flood damages are as follows:

	Flood of Record	Protection by Authorized Works Against Design Flood
Number of Acres:		
Agriculture or undeveloped	11,800	11,800
Residential	2,500	2,500
Commercial	600	600
Marshland	0	0
Total	14,900	14,900
Value of Lands and Improvements:		
Lands	$216,300,000	$216,300,000
Improvements	$436,000,000	$436,000,000
Total	$652,300,000	$652,300,000

The back levees are designed for protection against hurricane-generated stages of 100-year frequency. The maximum flood of record on the east side of the Mississippi River occurred in September 1965 (Betsy). On the west side, the maximum flood occurred in August 1969 (Camille). The damages from Hurricane Betsy were $45,500,000 in 1965 ($307,544,000 present). The damages from Hurricane Camille were $62,500,000 in 1969 ($301,235,000 present).

The duration of flooding within the project area lasted from about three days to several weeks. The most recent flood event was Hurricane Juan in October 1985.

Benefits from the project consist of reduction of flood damage from hurricane tidal overflow caused by overtopping of the existing back levees and land intensification. The average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	$ 14,986,000
Mitigation	13,000
Total	$ 14,999,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Reach A	
Lands and Damages	$ 3,000
Planning, Engineering and Design	100,000
Subtotal	$ 103,000
Reach B-1	
Lands and Damages	$ 8,000
Complete Foreshore Dikes at Empire	81,000
Surveys and Layouts	19,000
Planning, Engineering and Design	50,000
Supervision and Administration	88,000
Subtotal	$ 246,000
Reach B-2	
Lands and Damages	$ 5,000
Planning, Engineering and Design	100,000
Subtotal	$ 105,000
West Bank River Levees	
Lands and Damages	$ 5,000
Continue Station 1313+77 - 1793+08, 2nd Enlargement	1,193,000
Initiate Station 764-1313+77, 2nd Enlargement	100,000
Surveys and Layouts	20,000
Planning, Engineering and Design	58,000
Supervision and Administration	170,000
Subtotal	$1,546,000
Total	$2,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1962, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Cost
Provide lands, easements, and rights-of-way including borrow and dredge material disposal areas.	$ 8,915,000	$
Accomplish alterations to roads, pipelines, cables, wharves, oil wells, and any other facilities necessary for construction of the project.	5,698,000	
Pay 30 percent of the total project cost, to include the items listed above and a cash contribution or equivalent work specifically undertaken as an integral part of the project after authorization and in accordance with construction schedules as required by the Chief of Engineers.	59,387,000	
Bear all costs of operation, maintenance, repair, rehabilitation, and replacement.		857,500
Subtotal Non-Federal Costs	$74,000,000	$ 857,500
Bear all of the costs of the construction of the St. Jude to City Price, LA levee enlargement in excess of the cost of the Federal Plan.	505,000	
Total Non-Federal Costs	$74,505,000	$ 857,500

The Non-Federal sponsor has agreed to make all required payments concurrently with project construction.

In addition, prior to project authorization, local interests expended in excess of $3,761,000 between 1 April 1926 and 31 December 1959, in the Mississippi River delta area below New Orleans for levees and interior drainage facilities to provide protection against inundation from storm tides.

STATUS OF LOCAL COOPERATION: Assurances of local cooperation for Reaches A, B-1, B-2, and C furnished by the Plaquemines Parish Commission Council were accepted on behalf of the United States on 14 April 1965. Supplemental assurances covering provisions of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, furnished by the Plaquemines Parish Commission Council were accepted on behalf of the United States on 20 June 1973. The local sponsor, on 29 December 1987, provided the supplemental assurances of local cooperation for the West Bank River Levee. These assurances were accepted on 28 January 1988. Supplemental assurances of local cooperation for the St. Jude to City Price, Louisiana, levee enlargement were furnished by the Plaquemines Parish Government on 21 December 1992 and were accepted on 18 February 1993.

Local interests have constructed the first and second lifts of Reach C. Based on more detailed planning of construction, a third and fourth lift are required to raise the existing levee to project grade. Credit for equivalent work in lieu of a cash contribution is given upon evaluation of the construction. Local interests have been providing their required cash contributions on schedule to maintain their proportionate share of the project costs.

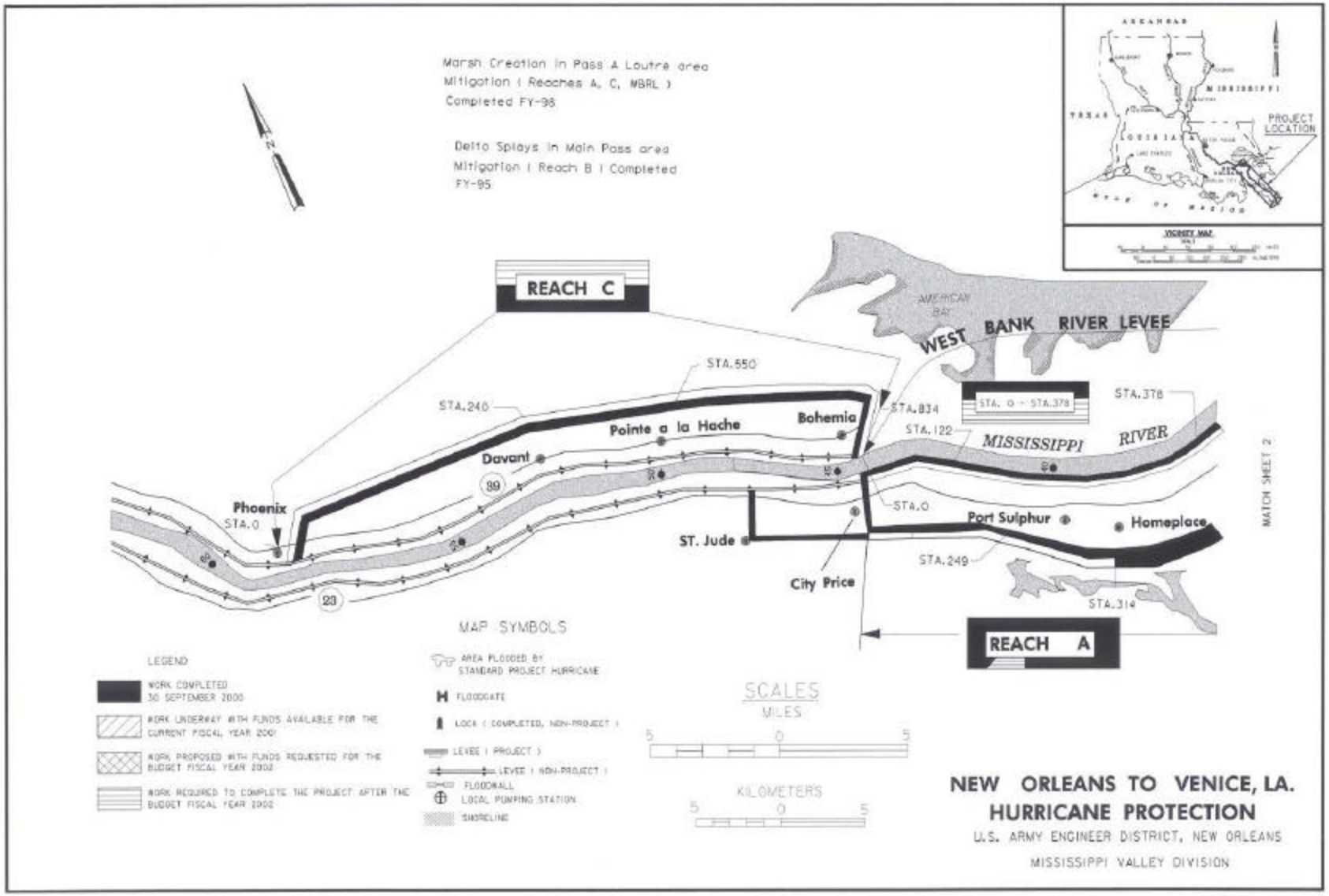
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $173,000,000 is the same as the last presented to Congress (FY 2001).

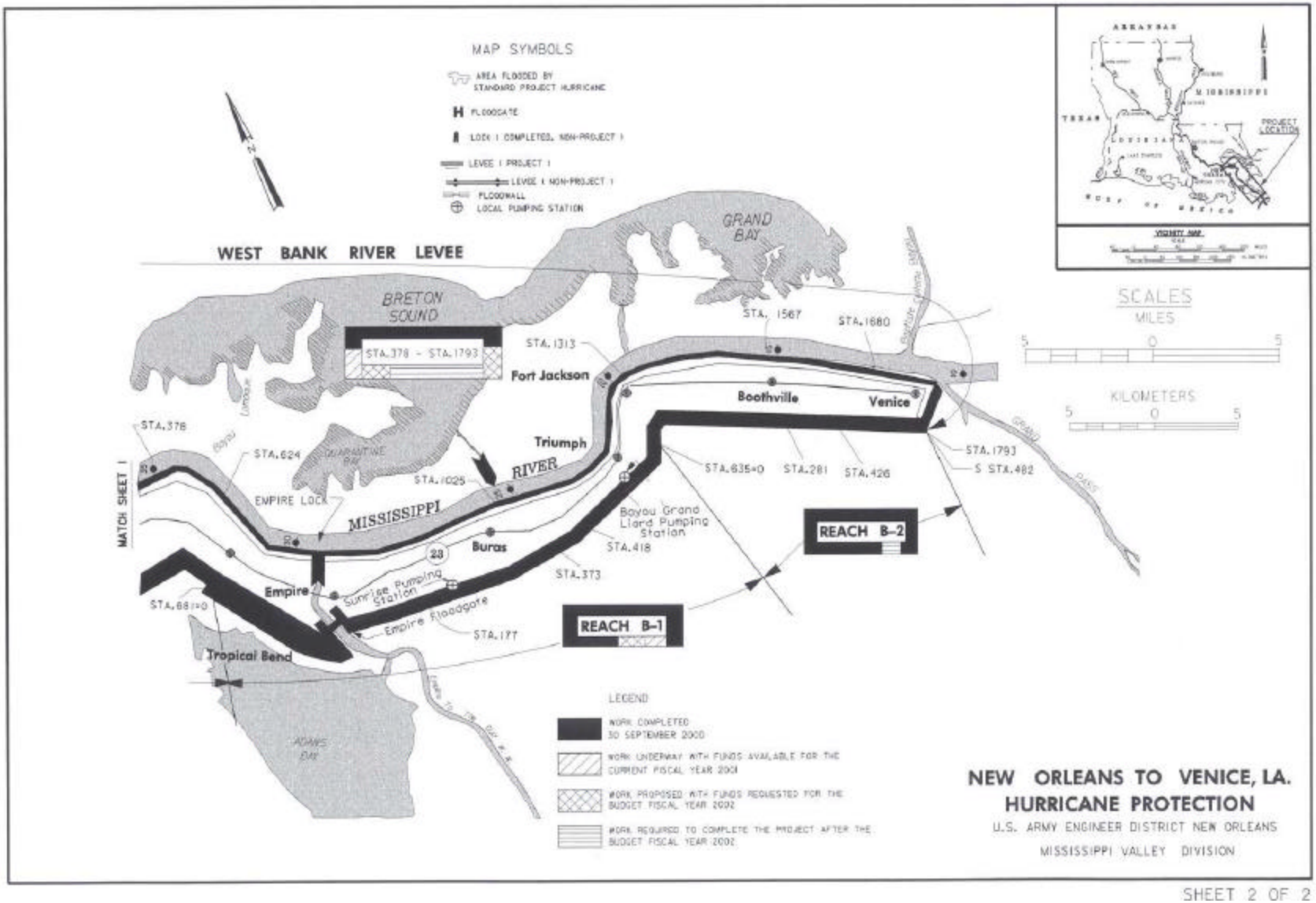
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 24 January 1975; however, during subsequent review, it became apparent that the final Environmental Impact Statement was deficient. A draft Environmental Impact Statement supplement was submitted to the Environmental Protection Agency on 23 March 1984, and the final Environmental Impact Statement supplement with a Section 404 evaluation was filed with the Environmental Protection Agency on 12 April 1985. A draft Supplemental Environmental Impact Statement (Supplement II) for work on the West Bank River Levee was submitted to the Environmental Protection Agency on 5 August 1987, and the final was submitted on 4 December 1987.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1963 and funds to initiate construction were appropriated in Fiscal Year 1964.

The project will impact approximately 3,000 acres of habitat (not including shallow open water). Of the 3,000 acres, 1,103 acres will be mitigated. A mitigation plan has been developed for Reach B that will produce new marsh in the Delta National Wildlife Refuge using delta-splays. Five crevasses in the bank at Main Pass are required for Reach B and have been constructed. A Supplemental Mitigation Plan has been developed to readdress impacts on Reach A and also determine mitigation requirements for Reach C and the West Bank River Levee. Approval of this Supplemental Mitigation Report was received in 1996. This supplemental plan, consisting of creating and preserving marsh, was constructed in 1997.

At the request of Plaquemines Parish, a Post Authorization Change report was prepared to incorporate the area from St. Jude to City Price (an additional 3.3 miles of levee protection) into the project. This area is adjacent to the upstream end of Reach A. Costs for this work are 100 percent non-Federal. Plaquemines Parish wants to include this reach so that flood insurance can be obtained by residents and industry in the area. The lateral levee at City Price, which is currently the upstream terminus of Reach A, will not be constructed. The savings achieved by not constructing the lateral levee and its related relocations will be creditable to the local sponsor. The Post Authorization Change report was submitted to Lower Mississippi Valley Division on 5 February 1992, and was approved 6 March 1992. Proposed supplemental assurances were approved on 10 July 1992. Plaquemines Parish Government executed the supplemental assurances on 21 December 1992 and they were accepted on 18 February 1993.


Marsh Creation in Pass A Loutre area
Mitigation (Reaches A, C, MBRL)
Completed FY-98
Delta Splays in Main Pass area
Mitigation (Reach B) Completed
FY-95
PROJECT LOCATION
VICINITY MAP
REACH C
WEST BANK RIVER LEVEE
STA.550
STA.240
STA.834
STA. 0 - STA.378
STA.378
STA.122
MISSISSIPPI RIVER
Pointe a la Hache
Bohemia
Davant
Phoenix
STA.0
STA.0
Port Sulphur
Homeplace
ST. Jude
City Price
STA.249
STA.314
MATCH SHEET 2
REACH A
MAP SYMBOLS
LEGEND
WORK COMPLETED 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
AREA FLOODED BY STANDARD PROJECT HURRICANE
FLOODGATE
LOCK (COMPLETED, NON-PROJECT)
LEVEE (PROJECT)
LEVEE (NON-PROJECT)
FLOODWALL
LOCAL PUMPING STATION
SHORELINE
SCALES
MILES
KILOMETERS
NEW ORLEANS TO VENICE, LA.
HURRICANE PROTECTION
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI VALLEY DIVISION
SHEET 1 OF 2


MAP SYMBOLS
AREA FLOODED BY STANDARD PROJECT HURRICANE
FLOODGATE
LOCK (COMPLETED, NON-PROJECT)
LEVEE (PROJECT)
LEVEE (NON-PROJECT)
FLOODWALL
LOCAL PUMPING STATION
WEST BANK RIVER LEVEE
GRAND BAY
BRETON SOUND
STA. 378 - STA. 1793
STA. 1313
Fort Jackson
STA. 1567
STA. 1680
Boothville
Venice
Triumph
RIVER
MISSISSIPPI
STA. 378
STA. 624
QUARANTINE BAY
STA. 1025
EMPIRE LOCK
MATCH SHEET 1
Buras
23
Empire
Sunrise Pumping Station
Empire Floodgate
STA. 177
Tropical Bend
ADAMS BAY
Bayou Grand Liard Pumping Station
STA. 418
STA. 373
STA. 635+0
STA. 281
STA. 426
STA. 1793
S STA. 482
REACH B-2
REACH B-1
SCALES
MILES
KILOMETERS
LEGEND
WORK COMPLETED 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
NEW ORLEANS TO VENICE, LA.
HURRICANE PROTECTION
U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
MISSISSIPPI VALLEY DIVISION
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
PROJECT LOCATION
GULF OF MEXICO
VICINITY MAP

SHEET 2 OF 2

APPROPRIATION TITLE: Construction, General - Local Protection (Urban Flood Control)

PROJECT: Southeast Louisiana, Louisiana (Continuing)

LOCATION: The project is located in the urban areas of Jefferson, Orleans and St. Tammany parishes in southeast Louisiana. These areas make up the three major urban centers of the New Orleans Metropolitan Statistical Area.

DESCRIPTION: Programmed work includes canal improvements, removal of canal obstructions, and increased pumping capacities in Jefferson and Orleans Parishes. Channel improvement on Mile Branch near Covington, Louisiana, in St. Tammany Parish is unprogrammed.

AUTHORIZATION: Energy and Water Development Appropriations Act, Fiscal Year 1996 (Section 108), and the Water Resources Development Act of 1996 and 1999 (Section 533).

REMAINING BENEFIT - REMAINING COST RATIO: 6.5 to 1 at 7 5/8 percent.

TOTAL BENEFIT - COST RATIO: 2.5 to 1 at 8 percent.

INITIAL BENEFIT - COST RATIO: 2.5 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT - COST RATIO: Benefits are based on the Jefferson and Orleans Parishes, Louisiana, Urban Flood Control and Water Quality Management reconnaissance study dated July 1992 at October 1991 price levels and the Tangipahoa, Tchefuncte, and Tickfaw Rivers reconnaissance study dated June 1991 at October 1990 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$450,000,000	
Estimated Non-Federal Cost		155,000,000	
Cash Contribution	69,762,000		
Other	85,238,000		
Total Estimated Project Cost		$605,000,000	
Allocations to 30 September 2000		175,243,000	
Conference Allowance for FY 2001		69,000,000	
Allocation for FY 2001		57,824,000 [1]	
Allocations through FY 2001		233,067,000	52
Allocation Requested for FY 2002		51,908,000	63
Programmed Balance to Complete After FY 2002		116,987,000	
Unprogrammed Balance to Complete After FY 2002		$ 48,038,000	

STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Jefferson Parish	52	Being determined
Orleans Parish	25	Being determined
St. Tammany Parish		Indefinite

PHYSICAL DATA

Channel Improvement: 7 miles
Pumping Stations Modifications: 6
New Pump Stations: 2

[1] Reflects $11,040,000 reduction assigned as savings and slippage and $136,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: Jefferson, Orleans, and St. Tammany parishes are located in southeast Louisiana. They make up the three major urban centers of the New Orleans Metropolitan Statistical Area. Jefferson Parish has a population of 450,000 (1990). Orleans Parish and the City of New Orleans have coincident boundaries and a population of 500,000 (1990). Jefferson and Orleans Parishes are located in the deltaic plain of the Mississippi River, within the coastal zone of Louisiana. St. Tammany Parish, on the north shore of Lake Pontchartrain, is developing rapidly with a population of 143,000 in 1990, a 30-percent increase since 1980.

Jefferson and Orleans Parishes are bisected by the Mississippi River, creating an east and a west bank area. Generally, the areas near the Mississippi River are above sea level. However, ground elevations decrease with distance from the river and some areas within the levee systems have elevations of as much as nine feet below sea level. Most of the developed areas are protected by levee systems from river and hurricane flooding and drained by pumps which discharge primarily into estuarine water bodies such as Lake Pontchartrain, Barataria Bay, and Lake Borgne.

The leveed areas in Jefferson Parish are divided into three hydrologically distinct basins (East Bank, West Bank - East of Harvey Canal, and West Bank - West of Harvey Canal) that are further subdivided into many sub-basins by natural and man-made barriers. These basins are webbed with canals that terminate at pumping stations. The east bank includes the cities of Kenner and Harahan and unincorporated Metairie. The west bank includes the cities of Westwego and Gretna and the unincorporated communities of Avondale, Bridge City, Marrero, Harvey, Terrytown, and Lafitte.

Orleans Parish is divided into many sub-basins by natural and man-made barriers. These basins are also webbed with canals that terminate at pumping stations. The City of New Orleans makes up an east bank and a west bank basin. The west bank community is commonly referred to as Algiers.

St. Tammany Parish includes the cities of Covington, Slidell, Mandeville, Madisonville, Lacombe, Abita Springs, and other smaller communities. The parish is characterized by gently rolling hills which become flatter in the south near Lake Pontchartrain. A narrow bank of deltaic plain extends along the shore of the lake. Elevations range from 200 feet in the north to near sea level at the lake. The parish is drained by numerous watersheds of varying size. The Pearl River drains an area along the east side of the parish, and backwater flooding from the river occurs in the southeast near Slidell. The remainder of the parish is drained by the Tchefuncte River, Bayou Lacombe, Bayou Bonfouca, and numerous smaller watersheds. Rapid growth, primarily in the southern portion of the parish, has increased rainfall runoff and flooding. The area along the north shore of the lake, including portions of Slidell, Mandeville, Madisonville, and Lacombe, are also subject to flooding from hurricane surges.

Approximately 30 percent of the state's population and 40 percent of the state's economy reside in the three affected parishes which have suffered great flooding losses. Local interests have made substantial improvement to the existing flood control system but are unable to address the major flooding events that continue to plague the Southeast Louisiana area. Flood damages since 1979 are in the billions of dollars. In the extreme rainfall event that occurred in May 1995, more than 24 inches of rain fell into the basin in less than 24 hours. Damages from this one event were approximately $1.5 billion. The Federal expenditures for this damage recovery are expected to exceed $500 million. The average annual benefits, all flood control, are $48,007,000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Jefferson Parish	
Lands and Damages	$ 52,000
Initiate:	
Two Mile PH II	1,091,000
Soniat W Nap Lynette	1,998,000
Gardere PH II	5,220,000
Justice/Oil Co.	3,896,000
Elmwood at W Esp	660,000
Elmwood at Kawanee	730,000
Continue:	
Soniat-W Nap - Vets	1,254,000
Two Mile PH II	690,000
Suburban @ I-10	2,678,000
Suburban PS #2	4,356,000
Complete:	
Swift/Canal A	2,656,000
Suburban @ W Esp	442,000
Whitney Barataria	2,244,000
Elmwood P.S. #3	1,886,000
Surveys and Layouts	22,000
Planning, Engineering and Design	300,000
Supervision and Administration	1,500,000
Subtotal	$31,675,000
Orleans Parish	
Lands and Damages	$ 20,000
Continue:	
Dwyer Canal Discharge	500,000
Hollygrove PH I	2,464,000
Claiborne, Jena -- LA	4,480,000
Dwyer PS	2,000,000
Pritchard PS	1,144,000
Hollygrove PH II	7,048,000
Surveys and Layouts	77,000
Planning, Engineering and Design	1,000,000
Supervision and Administration	1,500,000
Subtotal	$20,233,000
Total	$51,908,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, and rights-of-way, including borrow and dredged material disposal areas.	$ 11,844,000	$
Accomplish alterations to roads, pipelines, cables, wharves, oil wells, and any other facilities necessary for construction of the project.	$ 28,029,000	
Bear 25 percent of the total project cost, to include the items listed above and a cash contribution or equivalent work specifically undertaken as an integral part of the project subsequent to the reports cited in the authorizing language.	$115,127,000	
Bear all costs of operation, maintenance, repair, rehabilitation and replacements of all features of the project		1,546,000
Total Non-Federal Cost	$155,000,000	$1,546,000

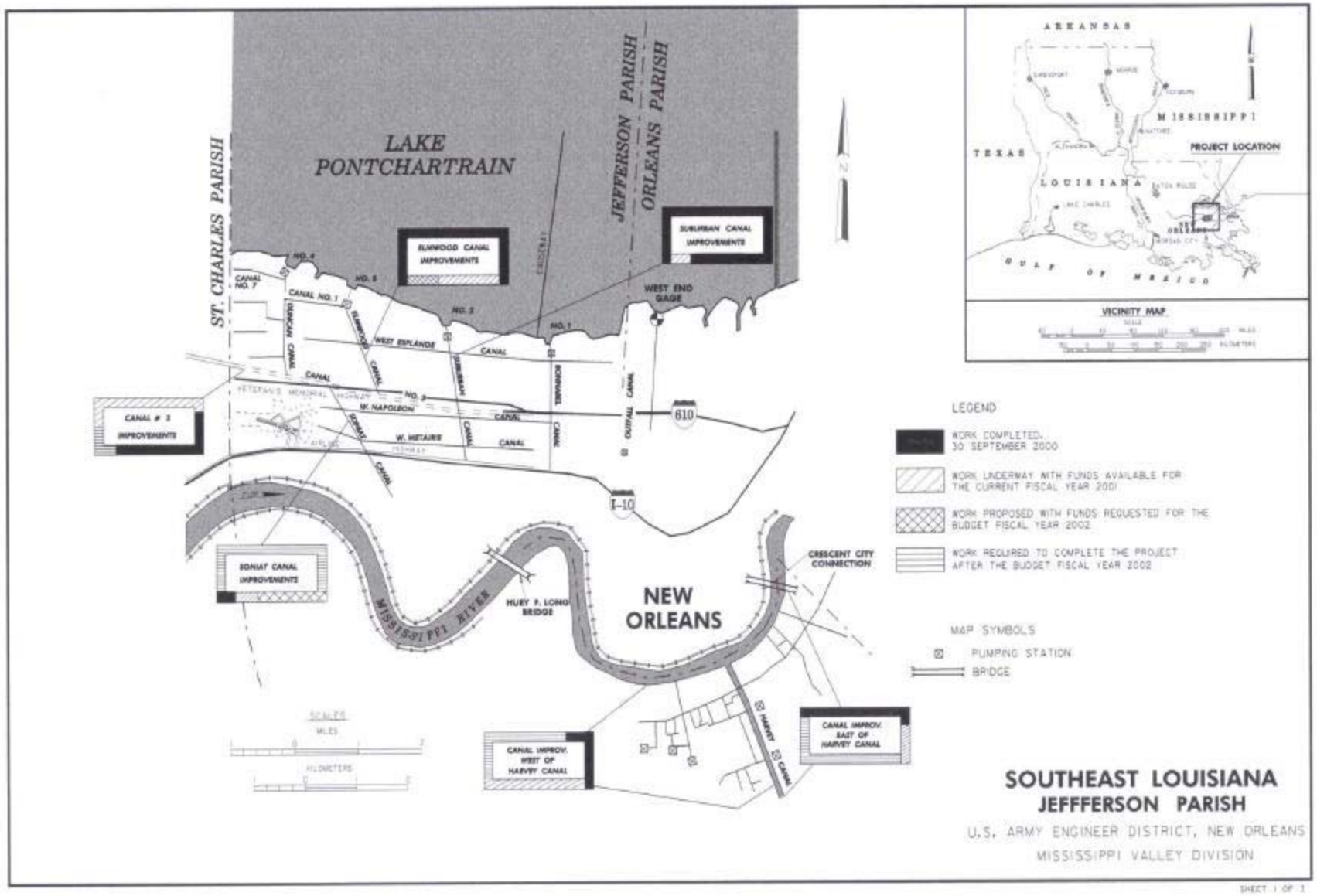
STATUS OF LOCAL COOPERATION: The Project Cooperation Agreements between the Federal Government and Jefferson and Orleans Parishes were executed on January 16, 1997, and January 23, 1997, respectively. The Project Cooperation Agreement for the authorized work in St. Tammany Parish is currently unscheduled. Local interests have accomplished significant work compatible and integral to the project. Actual credit for equivalent work in lieu of cash contributions will be given subject to technical evaluations and audit.

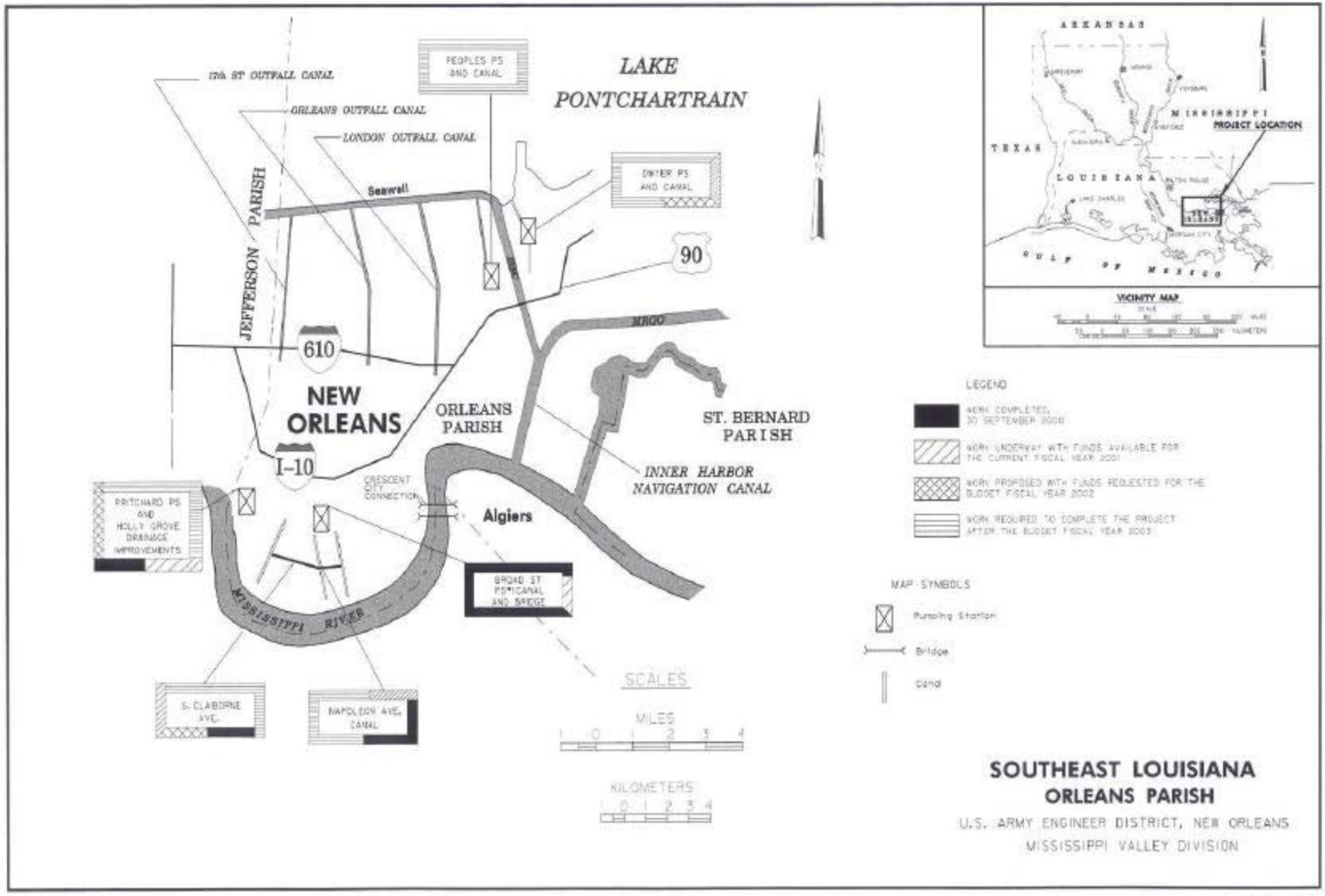
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $450,000,000 is an increase of $51,000,000 from the latest estimate of $399,000,000 presented to Congress (FY 2001). This change includes the following items:

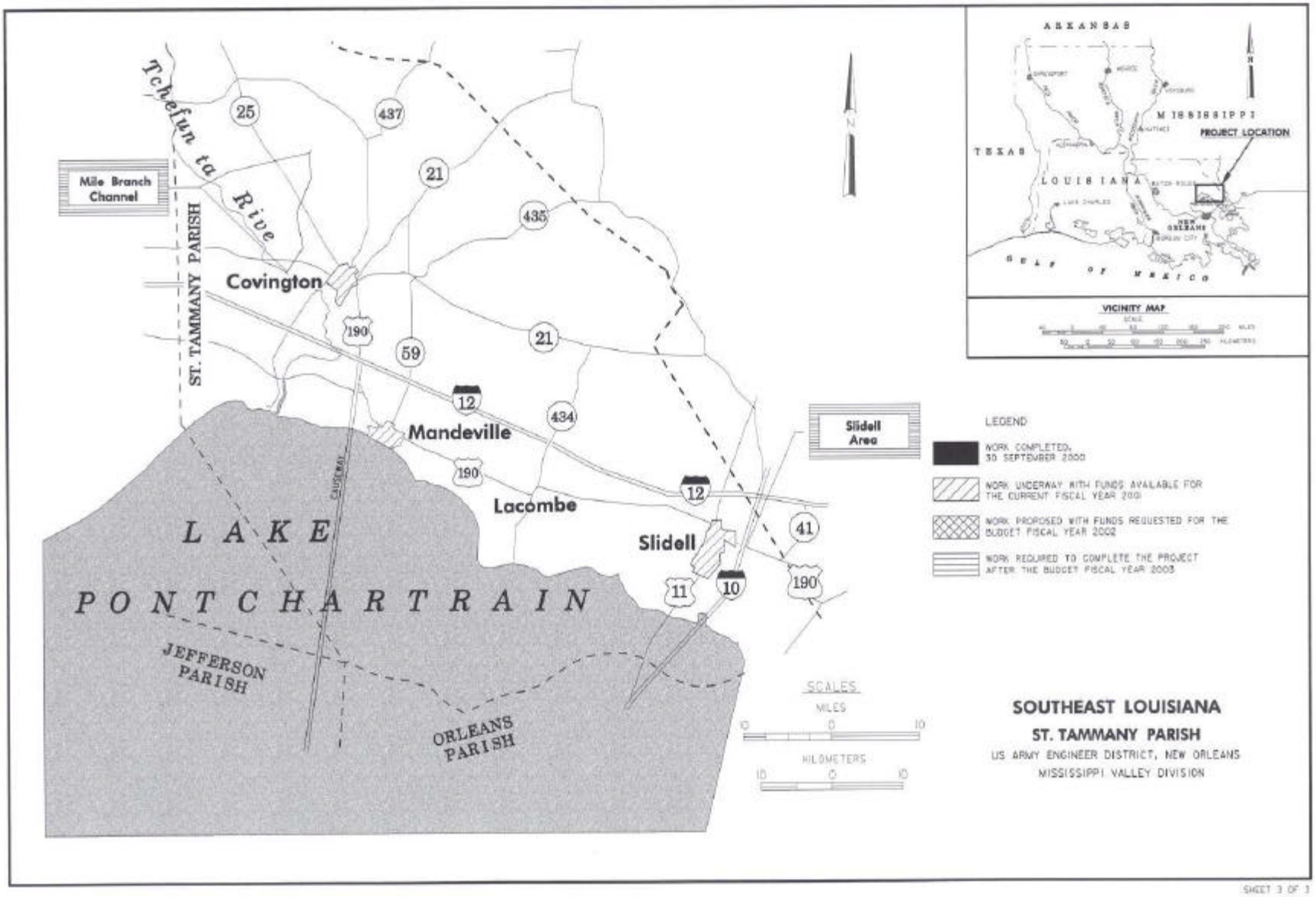
Item	Amount
Design Changes	$ 51,000,000
Total	$ 51,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: All environmental documentation associated with the work planned in Jefferson and Orleans Parishes has been completed. The environmental documentation for work in St. Tammany Parish will be completed prior to initiation of construction.

OTHER INFORMATION: Funds to initiate engineering, design and construction were appropriated in Fiscal Year 1996. The total estimated cost for the work described in the reports cited in the authorizing language is $537,000,000. Construction funds for St. Tammany Parish are not programmed for lack of an approved Technical Report. The City of Slidell has indicated its intent to act as local sponsor for a project within the city limits. A Technical Report is being prepared with completion scheduled for August 2001.


LAKE PONTCHARTRAIN
ST. CHARLES PARISH
JEFFERSON PARISH
ORLEANS PARISH
ELMWOOD CANAL IMPROVEMENTS
SUBURBAN CANAL IMPROVEMENTS
WEST END GAGE
CANAL # 3 IMPROVEMENTS
BONIAT CANAL IMPROVEMENTS
CANAL IMPROV. WEST OF HARVEY CANAL
CANAL IMPROV. EAST OF HARVEY CANAL
CRESCENT CITY CONNECTION
HUEY P. LONG BRIDGE
MISSISSIPPI RIVER
NEW ORLEANS
W. NAPOLEON
W. METAIRIE
WEST ESPLANDE
CANAL NO. 1
CANAL NO. 7
NO. 4
NO. 5
NO. 3
NO. 1
NO. 2
DUCHAMP CANAL
SUBURBAN CANAL
BONNABEL CANAL
OUTFALL CANAL
HARVEY CANAL
I-10
610
SCALES
MILES
KILOMETERS
ARKANSAS
TEXAS
LOUISIANA
MISSISSIPPI
GULF OF MEXICO
PROJECT LOCATION
VICINITY MAP
LEGEND
WORK COMPLETED, 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
MAP SYMBOLS
PUMPING STATION
BRIDGE
SOUTHEAST LOUISIANA
JEFFFERSON PARISH
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI VALLEY DIVISION
SHEET 1 OF 3


17th ST OUTFALL CANAL
ORLEANS OUTFALL CANAL
LONDON OUTFALL CANAL
PEOPLES PS AND CANAL
LAKE PONTCHARTRAIN
DUPER PS AND CANAL
Seawall
JEFFERSON PARISH
90
610
NEW ORLEANS
ORLEANS PARISH
I-10
MRGO
ST. BERNARD PARISH
INNER HARBOR NAVIGATION CANAL
CRESCENT CITY CONNECTION
Algiers
PRITCHARD PS AND HOLLY GROVE DRAINAGE IMPROVEMENTS
BROAD ST PS&CANAL AND BRIDGE
MISSISSIPPI RIVER
S. CLAIBORNE AVE.
NAPOLEON AVE. CANAL
SCALES
MILES
KILOMETERS
ARKANSAS
MISSISSIPPI
PROJECT LOCATION
TEXAS
LOUISIANA
GULF OF MEXICO
VICINITY MAP
LEGEND
WORK COMPLETED, 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2003
MAP SYMBOLS
Pumping Station
Bridge
Canal
SOUTHEAST LOUISIANA
ORLEANS PARISH
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI VALLEY DIVISION
SHEET 2 OF 3


Tchefuncte River
Mile Branch Channel
ST. TAMMANY PARISH
Covington
Mandeville
Lacombe
Slidell
Slidell Area
LAKE PONTCHARTRAIN
JEFFERSON PARISH
ORLEANS PARISH
CAUSEWAY
25
437
21
435
190
59
12
434
41
11
10
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
PROJECT LOCATION
GULF OF MEXICO
VICINITY MAP
LEGEND
WORK COMPLETED, 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2003
SCALES
MILES
KILOMETERS
SOUTHEAST LOUISIANA
ST. TAMMANY PARISH
US ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI VALLEY DIVISION
SHEET 3 OF 3

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: West Bank Vicinity, of New Orleans, LA (Hurricane Protection) (Continuing)

LOCATION: The project is located along the west bank of the Mississippi River in the Vicinity of New Orleans in Jefferson, Orleans and Plaquemines Parishes.

DESCRIPTION: The recommended plan consists of new and enlarged levees along the permitted alignment which generally extends from the St. Charles/Jefferson Parish boundary line east along the existing Lake Cataouatche Levee to the Westwego/Bayou Segnette area, from the Westwego area along the existing V-levee alignment to the vicinity of the old Estelle Pumping Station and along the existing Harvey Canal-Bayou Barataria Levee tieing into the floodwall at the Cousins Pump Station, then from the pump station to the navigable sector floodgate complex which is to be constructed in the Harvey Canal near the Cousins Pumping Station. Floodwalls will be used along the levee alignment mentioned above when tieing into pumping stations and when land constraints dictate. The plan also provides for the construction of a navigable floodgate in the Harvey Canal just south of Lapalco Boulevard, and the construction of floodwalls along the east bank of the Harvey Canal generally along Peters Road south of Lapalco Boulevard. The existing levees adjacent to Algiers and Hero Canals will be raised, and the levee along the north bank of the Hero Canal will include a wave berm. Mitigation of significant environmental losses to bottomland hardwood and cypress swamp will be accomplished by acquisition of 1,312 acres of high quality wooded lands including wetlands and implementation of measures designed to primarily improve habitat quality. Deferred construction to address future changes in flood stages due to regional subsidence and sea level rise is unprogrammed.

AUTHORIZATION: Water Resources Development Acts of 1986 and 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 5.2 to 1 at 7 1/8 percent.

TOTAL BENEFIT-COST RATIO: 3.8 to 1 at 7 1/8 percent.

INITIAL BENEFIT-COST RATIO: 3.8 to 1 at 7 1/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available economic analysis provided in the West Bank - East of Harvey Canal Feasibility Report approved in September 1994, updated to October 1998 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Federal Cost			$200,000,000	
Programmed Construction		$190,830,000		
Unprogrammed Construction		9,170,000		
Estimated Non-Federal Cost			108,000,000	
Programmed Construction		$103,062,000		
Cash Contribution	$31,428,000			
Other	71,634,000			
Estimated Non-Federal Cost				
Unprogrammed Construction		$ 4,938,000		
Cash Contribution	$ 4,938,000			
Other	0			
Total Estimated Programmed Construction Cost			293,892,000	
Total Estimated Unprogrammed Construction Cost			14,108,000	
Total Estimated Project Cost			308,000,000	
Allocations to 30 September 2000			53,884,000	
Conference Allowance for FY 2001			8,065,000	
Allocations for FY 2001			7,959,000 [2]	
Allocations through FY 2001			61,843,000	31
Allocation Requested for FY 2002			12,000,000	37
Programmed Balance to Complete After FY 2002			$116,987,000	
Unprogrammed Balance to Complete After FY 2002			$ 9,170,000	

STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Westwego to Harvey	65	Being determined
West of Algiers Canal	0	Being determined
East of Algiers Canal	0	Being determined
Lake Cataouatche	0	Being determined
Entire Project	23	Being determined[1]

PHYSICAL DATA

Westwego to Harvey Canal Area

Construct approximately 22 miles of levee and 2 miles of floodwall.

West of Algiers Canal Area

Construct approximately 11 miles of levee and 5 miles of floodwalls.
Construct a sector floodgate in the Harvey Canal
Increase capacity of the Cousins Pumping Station and the discharge channel by 1000 cfs.

East of Algiers Canal Area

Construct approximately 14 miles of levee and about ½ mile of Floodwall.

Lake Cataouatche Area

Construct approximately 10 miles of levee and 2.5 miles of floodwall.

[1] Deferred construction to address future changes in flood stages due to regional subsidence and sea level rise is assumed to occur in 2021.
[2] Reflects $1,290,000 reduction assigned as savings and slippage, $1,200,000 reprogrammed to the project, and $16,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The project area is generally bounded by the St. Charles/Jefferson Parish line to the west, the Mississippi River to north and east, and Barataria Bay and Lake Salvador to the south. Tidal waters can be carried into the project area through Lakes Cataouatche, Salvador and Barataria Bay which connect to the Gulf of Mexico through Barataria Bay, and into Bayou Segnette, Harvey Canal and Algiers Canal. Fresh water comes into the area from the Mississippi River via the Harvey and Algiers Locks, direct rainfall, and pumpage from leveed areas.

Several hurricanes and tropical storms have passed through or near the project area, including the following major storms: the 1915 hurricane, the 1947 hurricane, and Hurricanes Flossy (1956), Hilda (1964), Betsy (1965), Carmen (1974), Babe (1977), Bob (1979), Danny (1985), Juan (1985), Andrew (1992), and Frances (1998). Hurricane Flossy brought torrential rains and tidal flooding to the project area, with nearby areas recording 16.7 inches of rain in a 24-hour period. Hurricane Hilda raised water levels at Barataria and Lafitte to 3.6 and 4.04 feet National Geodetic Vertical Datum, respectively. Hurricanes Betsy and Carmen also caused flooding to some parts of the project area. Hurricane Juan, generally characteristic of a storm event of approximately 25 years, broke high water records throughout the area, with stages in the Harvey Canal estimated to be the equivalent of a 60-year event. On the west bank, three local levees were breached and several subdivisions were flooded by tidal inundation and the long duration of the high stages. Extensive flooding occurred west of the Harvey Canal. The total precipitation from Hurricane Juan ranged from 8 to 12 inches over the project area. This storm clearly illustrated that the present local levee system is unable to provide protection against a tidal surge. The quick action and massive flood fighting efforts by the West Jefferson Levee District, the Parish of Jefferson, the National Guard, and thousands of volunteers prevented flooding of potentially catastrophic proportions. The project will provide Standard Project Hurricane (SPH) (about a 500-year event) protection to approximately 77,908 acres of mostly urban land with a population of 201,000 (1990 census). The average annual benefits, all flood control, are $71,199,000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Westwego to Harvey Canal Area	
Initiate:	
New WEGO Pump Sta to Orleans Village 2nd Lift	$ 100,000
Reach 3 Structures (MTK/Ames/Oak Cove F/W)	1,000,000
Complete:	
Estelle Pump Sta F/Q	629,000
Surveys and Layouts	30,000
Lands and Damages	10,000
Planning, Engineering and Design	200,000
Supervision and Administration	350,000
Subtotal	$ 2,319,000

West of Algiers Canal Area	
Initiate:	
Sector Gate (Harvey Canal)	$3,000,000
Initiate and Complete:	
Algiers Lock to Belle Chasse Hwy. W. 1st Lift	408,000
Continue:	
Cousins P/S DischChannel/FW/Culvert	3,042,000
Cousins Pump Sta. Exp. & Front Prot	1,103,000
Surveys & Layouts	30,000
Lands and Damages	10,000
Planning, Engineering and Design	600,000
Supervision and Administration	637,000
Subtotal	$8,830,000
East of Algiers Canal Area	
Initiate and Complete:	
Belle Chasse Hwy to Algiers Lk, E, 1st Lift	$ 100,000
Complete:	
Hero Lv/Belle Chasse Hwy E, 1st Lift	190,000
Surveys & Layouts	5,000
Lands and Damages	5,000
Planning, Engineering and Design	30,000
Supervision and Administration	195,000
Subtotal	$ 525,000
Lake Cataouatche Area	
Initiate:	
Lk Cataouatche P/S to Segnette St Park	$ 110,000
Surveys & Layouts	5,000
Lands and Damages	11,000
Planning, Engineering and Design	50,000
Supervision and Administration	150,000
Subtotal	$ 326,000
Total	$ 12,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 (PL 99-662), the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, and rights-of-way, and borrow and excavated material disposal areas.	$ 25,409,000	$
Accomplish all alterations and relocations to utilities and facilities (other than railroad bridges) necessary for construction of the project.	12,427,000	
Pay 35 percent of the cost allocated to hurricane protection. Funds provided by non-Federal interests for the interim hurricane protection may be considered beneficial expenditures and may be credited as a part of the non-Federal contribution of the project pursuant to the Water Resources Development Act of 1986.	70,164,000	
Bear all costs of operation, maintenance, repair, rehabilitation, and replacement of all features of hurricane protection facilities.		330,400
Total Non-Federal Costs	$108,000,000	$ 330,400

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement between the West Jefferson Levee District, previous local sponsor for the project, and the Federal Government was executed on 18 December 1990. Subsequent Memorandum of Agreement between the Louisiana Department of Transportation and Development (LADOTD) and the Federal Government, dated 16 May 1995, designated LADOTD as the project local sponsor. An amended Project Cooperation Agreement between LADOTD and the Federal Government was required for the east and west of the Algiers Canal and Lake Cataouatche area. The amended Project Cooperation Agreement (PCA) was executed 26 April 1999.

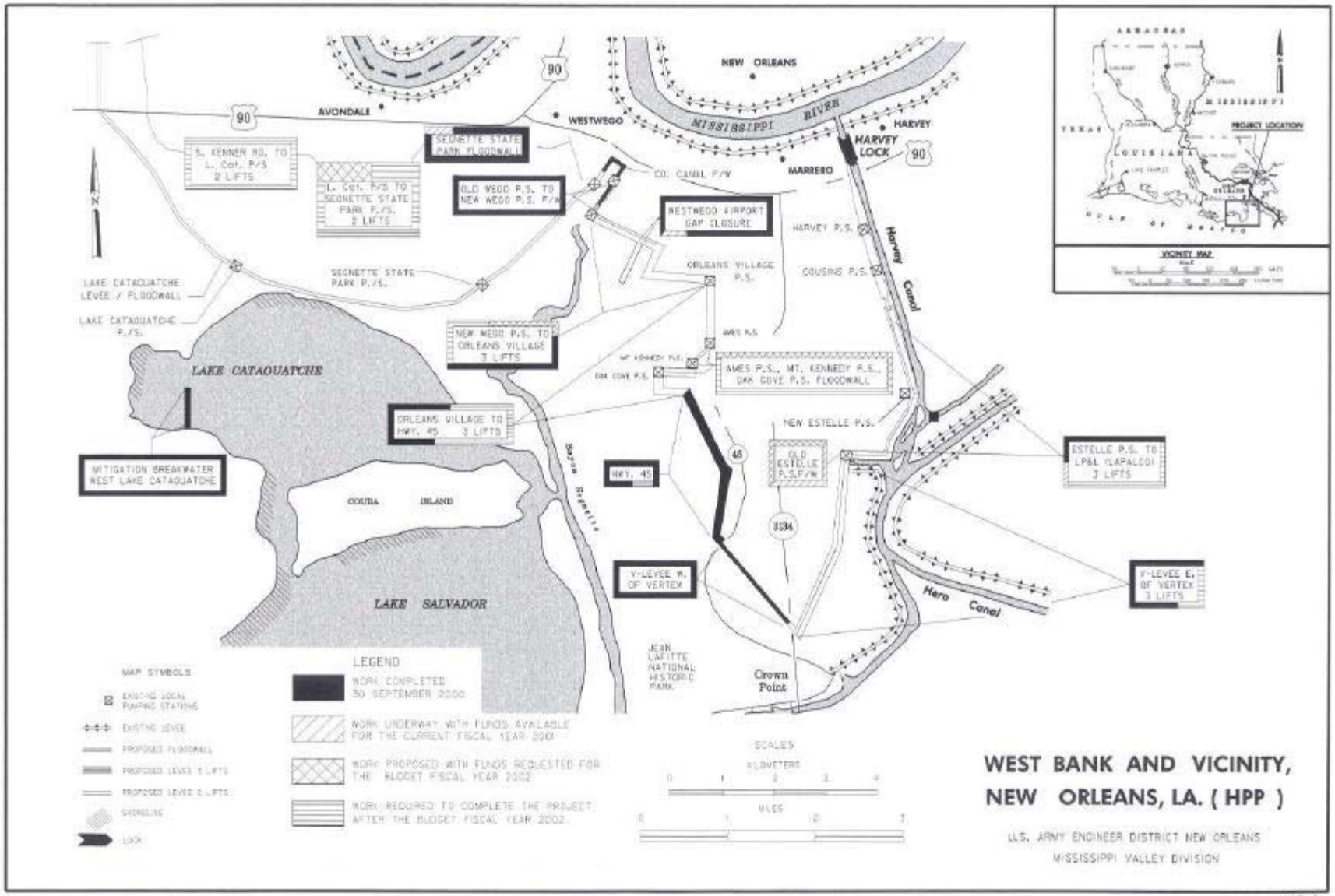
Local interests have accomplished engineering and design work and constructed numerous reaches of levee. Specifically, about $21,400,000 has been recommended in tentative credit to local interests for work accomplished or to be accomplished, subsequent to project authorization. Actual credit for equivalent work in lieu of cash contribution is given upon verification of engineering and design work and evaluation of the construction.

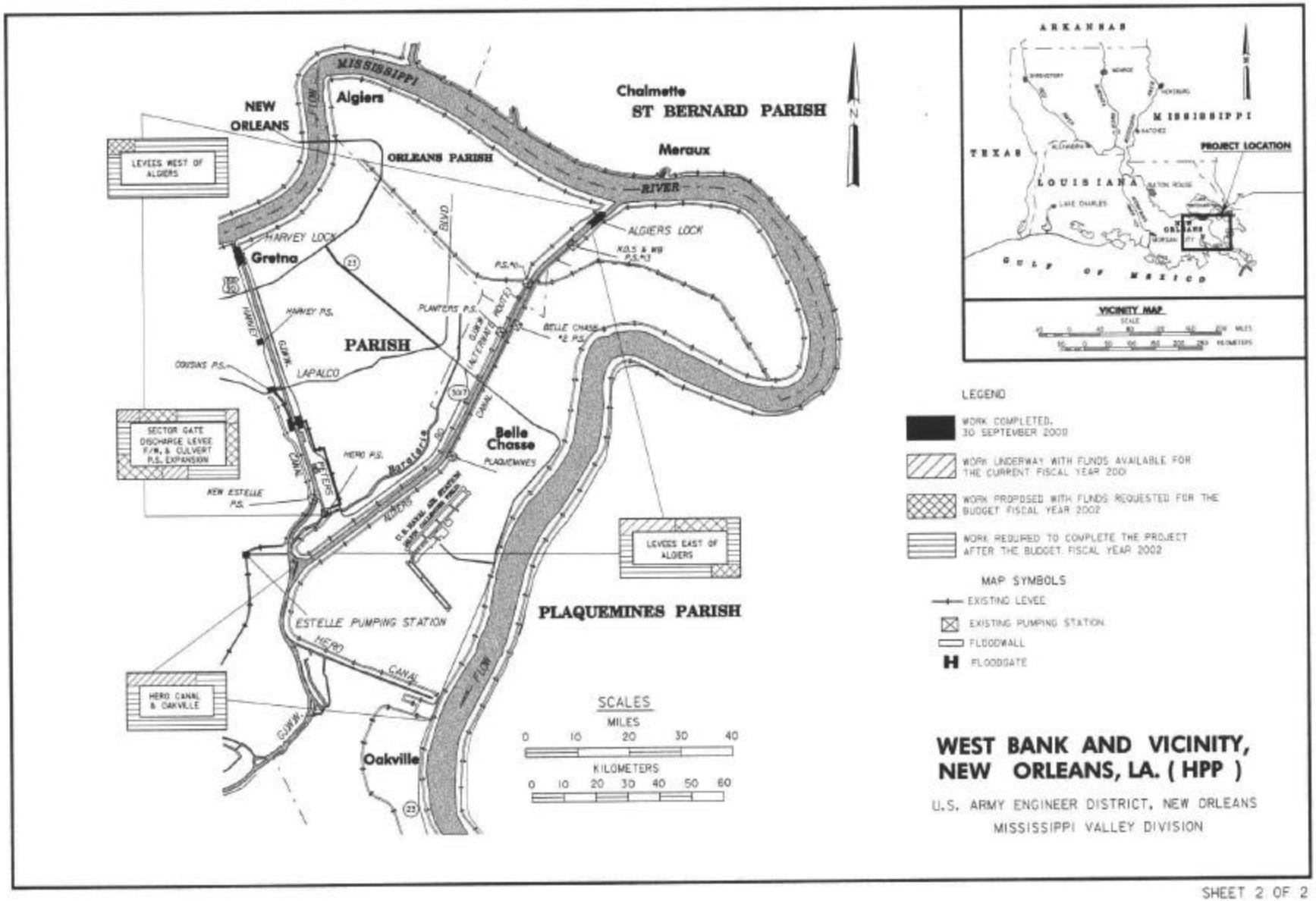
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $200,000,000 is an increase of $1,000,000 from the latest estimate ($199,000,000) presented to Congress (FY 2001). This change includes the following item:

Item	Amount
Price Escalation on Construction Features	$ 1,000,000
Total	$ 1,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement Westwego Area was filed with the Environmental Protection Agency on 23 October 1987. The Record of Decision (ROD) was signed 28 March 1989. Environmental Assessments to address refinements in project design were prepared on 23 February 1990, June 1991, March 1992 and August 1993. A Finding of No Significant Impact (FONSI) was signed by the District Commander in each assessment. The final Environmental Impact Statement for the east and west of the Algiers Canal area was filed with Environmental Protection Agency on 30 September 1994. The ROD for East and West of Algiers Canal and Lake Cataouatche were signed on 28 September 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design for the east and west of the Algiers Canal area were appropriated in Fiscal Year 1995, and funds to initiate construction were appropriated in Fiscal Year 1997. Funds to initiate preconstruction engineering and design for the Westwego Area were appropriated in Fiscal Year 1988 and funds to initiate construction were appropriated in Fiscal Year 1990. Construction was initiated in March 1991. A post authorization change report to expand the scope of this project to include the Lake Cataouatche area was approved in December 1996 and funds to initiate construction were appropriated in FY 1999.


NEW ORLEANS
AVONDALE
WESTWEGO
MISSISSIPPI RIVER
HARVEY
HARVEY LOCK
MARRERO
90
S. KENNER RD. TO L. Cat. P/S 2 LIFTS
L. Cat. P/S TO SEGNETTE STATE PARK P./S. 2 LIFTS
SEGNETTE STATE PARK FLOODWALL
OLD WEGO P.S. TO NEW WEGO P.S. F/W
CO. CANAL F/W
WESTWEGO AIRPORT GAP CLOSURE
HARVEY P.S.
COUSINS P.S.
Harvey Canal
ORLEANS VILLAGE P.S.
SEGNETTE STATE PARK P./S.
LAKE CATAOUATCHE LEVEE / FLOODWALL
LAKE CATAOUATCHE P./S.
NEW WEGO P.S. TO ORLEANS VILLAGE 3 LIFTS
AMES P.S.
MT. KENNEDY P.S.
OAK COVE P.S.
AMES P.S., MT. KENNEDY P.S., OAK COVE P.S. FLOODWALL
LAKE CATAOUATCHE
ORLEANS VILLAGE TO HWY. 45 3 LIFTS
NEW ESTELLE P.S.
OLD ESTELLE P.S.F/W
ESTELLE P.S. TO LP&L (LAPALCO) 3 LIFTS
MITIGATION BREAKWATER WEST LAKE CATAOUATCHE
HWY. 45
45
COUBA ISLAND
Bayou Segnette
3134
V-LEVEE W. OF VERTEX
V-LEVEE E. OF VERTEX 3 LIFTS
Hero Canal
LAKE SALVADOR
JEAN LAFITTE NATIONAL HISTORIC PARK
Crown Point
MAP SYMBOLS
EXISTING LOCAL PUMPING STATIONS
EXISTING LEVEE
PROPOSED FLOODWALL
PROPOSED LEVEE 3 LIFTS
PROPOSED LEVEE 2 LIFTS
SHORELINE
LOCK
LEGEND
WORK COMPLETED 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
SCALES
KILOMETERS
MILES
WEST BANK AND VICINITY, NEW ORLEANS, LA. (HPP)
U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
MISSISSIPPI VALLEY DIVISION
VICINITY MAP
PROJECT LOCATION
1 OF 2


MISSISSIPPI
RIVER
FLOW
NEW ORLEANS
Algiers
Chalmette
ST BERNARD PARISH
Meraux
ORLEANS PARISH
LEVEES WEST OF ALGIERS
HARVEY LOCK
Gretna
ALGIERS LOCK
HARVEY P.S.
PLANTERS P.S.
PARISH
LAPALCO
ODUSAS P.S.
SECTOR GATE DISCHARGE LEVEE F/W, & CULVERT P.S. EXPANSION
HERO P.S.
NEW ESTELLE P.S.
Belle Chasse
PLAQUEMINES
LEVEES EAST OF ALGIERS
ESTELLE PUMPING STATION
HERO CANAL
HERO CANAL & OAKVILLE
Oakville
PLAQUEMINES PARISH
SCALES
MILES
0 10 20 30 40
KILOMETERS
0 10 20 30 40 50 60
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
PROJECT LOCATION
GULF OF MEXICO
VICINITY MAP
LEGEND
WORK COMPLETED, 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
MAP SYMBOLS
EXISTING LEVEE
EXISTING PUMPING STATION
FLOODWALL
FLOODGATE
WEST BANK AND VICINITY, NEW ORLEANS, LA. (HPP)
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI VALLEY DIVISION

SHEET 2 OF 2

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Crookston, Minnesota (Continuing)

LOCATION: The city of Crookston is located on the Red Lake River in Polk County in northwestern Minnesota, about 25 miles east of the Minnesota - North Dakota border and about 85 miles south of the Canadian border.

DESCRIPTION: The proposed project consists of two downstream high-flow channels, levees providing protection from the 100-year flood events for the neighborhoods of Woods Addition, Thorndale and Riverside/Downtown, and flood plain management techniques for areas not protected by permanent levees. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1999 (Public Law 106-53).

REMAINING BENEFIT-REMAINING COST RATIO: 2.1 to 1 at 6 7/8 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 6 7/8 percent.

INITIAL BENEFIT-COST RATIO: 1.6 to 1 at 6 7/8 percent (FY 2001).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Feasibility Report and Environmental Assessment for Local Flood Control, Crookston, Minnesota dated June 1997 at October 1996 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$7,020,000	
Estimated Non-Federal Cost		3,780,000	
Cash Contribution	$1,005,000		
Other	2,775,000		
Total Estimated Project Cost		$10,800,000	
Allocations to 30 September 2000		870,000	
Conference Amount for FY 2001		1,000,000	
Allocation for FY 2001		838,000[1]	
Allocations through FY 2001		1,708,000	24

STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	11	Being determined
PHYSICAL DATA		
Permanent Levees		1.5 miles
Channel Cutoffs		2
Road Raise		1

[1] Reflects $160,000 reduction assigned as savings and slippage and $2,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocation Requested for FY 2002	2,000,000	53
Programmed Balance to Complete after FY 2002	3,312,000	
Unprogrammed Balance to Complete after FY 2002	0	

JUSTIFICATION: About 800 Crookston residences are located in flood prone areas of the city. The 1950 flood inundated most of the flood prone properties. However, for subsequent floods in 1965, 1969, and 1979, the city of Crookston had erected levees that together with emergency flood fights prevented major damages to the flood prone residential areas. The local levees at Crookston were not constructed to permanent levee standards, and considerable deterioration has occurred since construction. There are six separable flood prone reaches in Crookston, and each reach is protected by a local levee, now in unreliable condition. The risk of failure of these levees during a large flood could cause catastrophic damages. The flood of April 1997 was the maximum flood of record, requiring a massive emergency flood fight to limit flood damages and prevent loss of life. It is expected that a 100-year flood event would result in damage in Crookston that would exceed $15 million. The average annual benefits, all for flood control, are $1,118,000.

FISCAL YEAR 2002: The requested amount of $2,000,000 will be applied as follows:

Complete Stage 1 Construction	$ 500,000
Initiate Stage 2 Construction	1,160,000
Real Estate Activities	40,000
Planning, Engineering and Design	150,000
Supervision and Administration	150,000
Total	$2,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way, and borrow and excavated or dredged material disposal areas.	$2,475,000	$ 0
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	300,000	
Pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	1,005,000	28,700
Total Non-Federal Costs	$3,780,000	$28,700

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

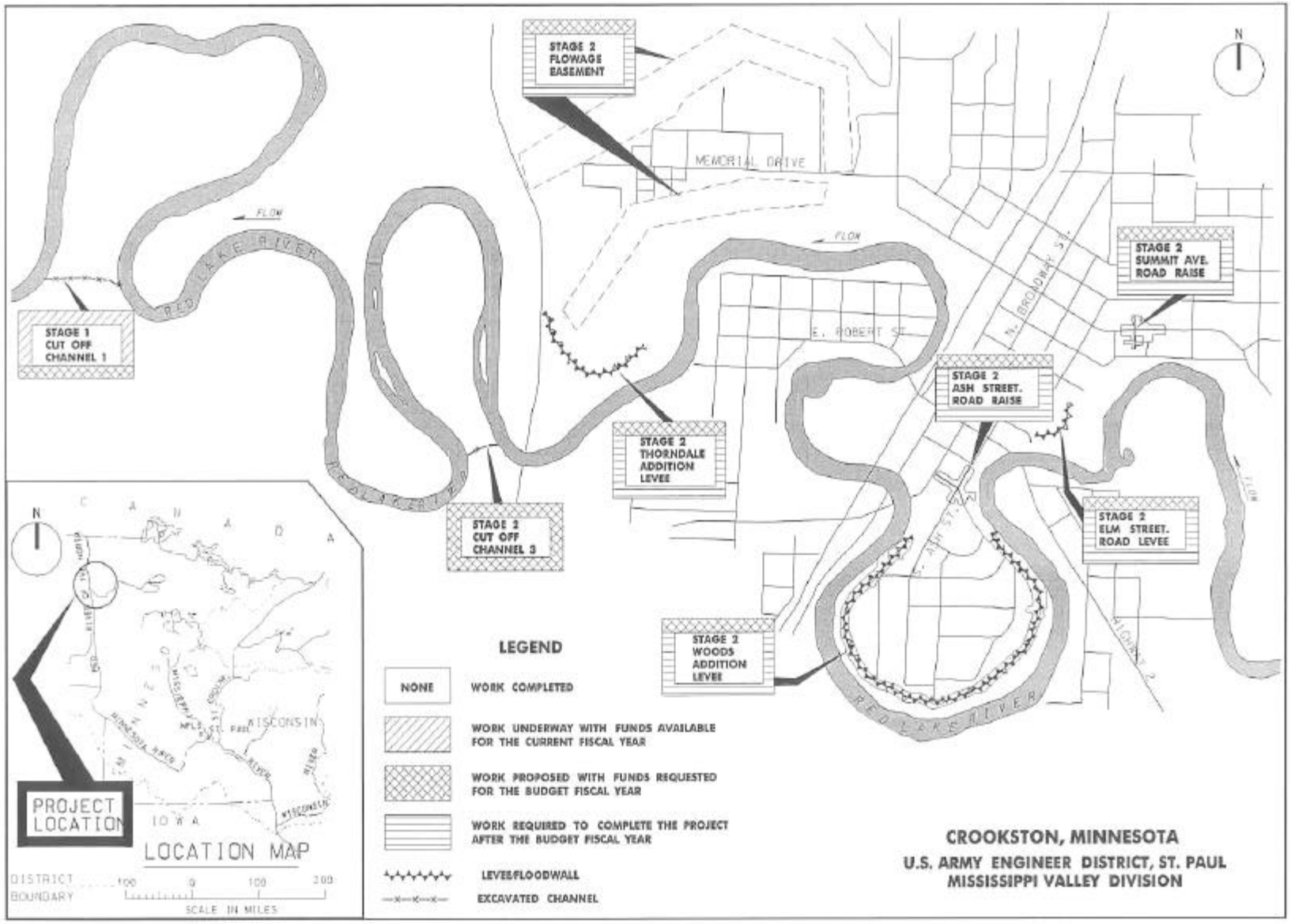
STATUS OF LOCAL COOPERATION: The city of Crookston is the local sponsor for this project. A Project Cooperation Agreement (PCA) for construction has been coordinated with the city and they are in agreement with its terms and conditions. The PCA was executed in March 2001. The city has instituted a special services district property tax to pay for this flood control project. In addition, the city has assembled a package of financial support from several state and local agencies.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $7,020,000 is an increase of $1,665,000 over the latest estimate ($5,355,000) presented to Congress (FY 1999). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 540,000
Post Contract Award and other Estimating Adjustments	1,125,000
Total	$1,665,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment was prepared in conjunction with the Feasibility Report. The environmental review process indicates that the proposed action does not constitute a major Federal action significantly affecting the environment. A Finding of No Significant Impact (FONSI) was signed 18 June 1997.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1997. Funds to initiate construction for Stage 1 were appropriated in FY 2001.


STAGE 2
FLOWAGE
EASEMENT
MEMORIAL DRIVE
FLOW
RED LAKE RIVER
STAGE 1
CUT OFF
CHANNEL 1
E. ROBERT ST.
N. BROADWAY ST.
STAGE 2
SUMMIT AVE.
ROAD RAISE
STAGE 2
ASH STREET.
ROAD RAISE
STAGE 2
THORNDALE
ADDITION
LEVEE
STAGE 2
CUT OFF
CHANNEL 3
STAGE 2
ELM STREET.
ROAD LEVEE
STAGE 2
WOODS
ADDITION
LEVEE
HIGHWAY 2
N
CANADA
WISCONSIN
IOWA
PROJECT
LOCATION
LOCATION MAP
DISTRICT
BOUNDARY
100 0 100 200
SCALE IN MILES
LEGEND
NONE
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE
FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED
FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT
AFTER THE BUDGET FISCAL YEAR
LEVEE/FLOODWALL
EXCAVATED CHANNEL
CROOKSTON, MINNESOTA
U.S. ARMY ENGINEER DISTRICT, ST. PAUL
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General – Local Protection (Flood Control)

PROJECT: Cape Girardeau – Jackson, Missouri (Continuing)

LOCATION: The project is located in Cape Girardeau County, Missouri, along the right bank of the Mississippi River between river miles 50 and 55 above the Ohio River.

DESCRIPTION: The project includes a 157 acre dry detention reservoir; approximately 1 mile of channel improvements on Cape La Croix Creek and 2 miles of channel improvements on Walker Branch, 8 bridge replacements; recreational trails and facilities and a sewer line replacing authorized sewage lagoon levee. Unprogrammed work consists of the non-structural flood control features, which are not economically justified.

AUTHORIZATION: Water Resources Development Act of 1986 modified by Title III, Section 301 of the Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 2.3 to 1 at 8 5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.6 to 1 at 8 5/8 percent.

INITIAL BENEFIT-COST RATIO: 1.6 to 1 at 8 5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: The document which provides basis for benefits is the Cape Girardeau-Jackson Metropolitan Area, Missouri – Post Authorization Change – Supportive Economic Analysis – March 1994 at 1993 price levels.

SUMMARIZED FINANCIAL DATA					STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost			$37,128,000				
Programmed Construction		$ 34,238,000					
Unprogrammed Construction		2,890,000			Entire Project	90	September 2002 [1]
Estimated Non-Federal Cost			13,895,000			PHYSICAL DATA	
Programmed Construction		12,907,000			Channels:	3 miles	
Cash Contributions	$2,766,000				Dams:	1 Dry Detention Reservoir	
Other Costs	10,141,000				Bridges:	8	
					Levees:	Sewer line replaces authorized lagoon levee	
Unprogrammed Construction		988,000					
Cash Contributions	0				Recreation:	Trails, camping area, ballfields, sanitary Facilities, miscellaneous.	
Other Costs	$ 988,000						
Total Estimated Programmed Construction Cost			$47,145,000	ACCUM PCT OF EST FED COST			
Total Estimated Unprogrammed Construction Cost			3,878,000				
Total Estimated Project Cost			$51,023,000				
Allocations to 30 September 2000			$30,352,000				
Conference Allowance for FY 2001			2,350,000				
Allocation for FY 2001			2,169,000 [2]				
Allocations through FY 2001			32,521,000	88			
Allocation Requested for FY 2002			1,717,000	92			
Programmed Balance to Complete After FY 2002			0				
Unprogrammed Balance to Complete After FY 2002			$ 2,890,000				

[1] For programmed work only; remaining work is unprogrammed pending a decision to construct these features.
[2] Reflects $376,000 reduction assigned as savings and slippage, $200,000 reprogrammed to the project, and $5,000 rescinded from the project in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The Cape Girardeau – Jackson project area, population 42,000 contains approximately 210 square miles of rural, urban, and developing lands, including 22 square miles previously under study in the Cape La Croix Creek watershed and 5 square miles previously under study in the Little River Diversion Channel study. Gently rolling hill land divided into small watersheds characterizes the study area. It also includes significant flood plain area bordering the Mississippi River and the Little River Diversion Channel. The principal flooding problem within this watershed is flash flooding along Cape La Croix Creek and its tributaries. The type of property subject to flooding encompasses a full range of industrial, commercial and residential usage, as well as some agricultural usage.

In May 1986, the flood of record occurred when approximately 10 to 13 inches of rain fell over the basin causing an estimated $50,000,000 flood damage loss. Several floods have occurred previously, most notably in May 1973 and March 1977. These floods were caused by recorded rainfall of approximately 9 and 7 inches, respectively. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	$3,714,000
Recreation	236,000
Total	$3,950,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Complete: Lands and Damages	48,000
Detention Reservoir	1,096,000
Recreation Facilities	203,000
Planning, Engineering and Design	172,000
Supervision and Administration	198,000
Total	$1,717,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 6,187,000	$
Modify or relocate utilities, roads, bridges (except railroad bridges) and other facilities where necessary for the construction of the project.	3,235,000	
Pay one half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	1,495,000	20,000
Pay all costs for approved compatible work associated with the project which will be credited toward the Non-Federal share of project costs.	212,000	
Pay 6.2 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	2,766,000	127,000
Total Non-Federal Costs	$13,895,000	$ 147,000

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement with the City of Cape Girardeau, Missouri was executed on 31 May 1990. The current non-federal cost estimate is $13,895,000, which includes a cash contribution of $2,766,000. The specific non-federal cost estimate is not noted in the Local Cooperation Agreement dated 25 May 1990 or in the Modification Agreement dated 27 October 1992. The modification agreement indicates a cash contribution of $2,168,000. The non-federal sponsor continues to be financially capable and willing to contribute their share of the project, including increased non-federal amounts. The non-federal sponsor has met all previous financial obligations on this project and is regarded to have a reasonable and implementable plan for meeting future financial commitments.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $37,128,000 is an increase of $434,000 from the latest estimate ($36,694,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$-200,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	634,000
Total	$434,000

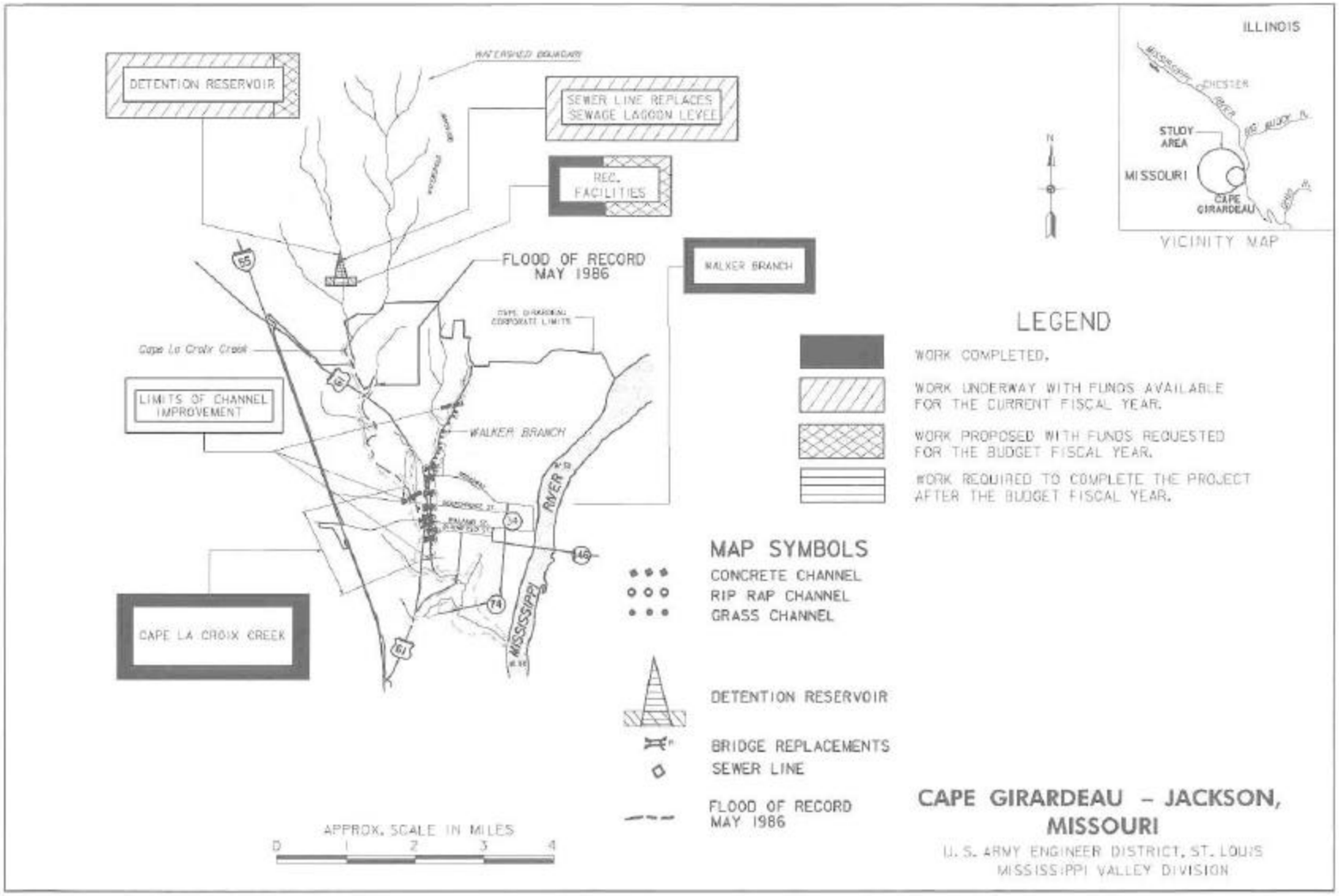
STATUS OF ENVIRONMENTAL IMPACT STATEMENT AND COMPLIANCE WITH CLEAN WATER ACT: The Survey Report dated December 1983 contained an Environmental Assessment and Finding of No Significant Impact signed by the St. Louis District Commander. During preparation of the General Design Memorandum, the recommended plan was again examined and the conclusion that the project will have no significant adverse environmental impact was upheld. The survey report also contained an evaluation under Section 404 (b) (1) of the Clean Water Act. Full compliance with the requirements of Sections 401 and 404 of the Clean Water Act was accomplished on 4 May 1990.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1987 and funds to initiate construction were appropriated in Fiscal Year 1990.

The project was modified by the Water Resources Development Act of 1996, which authorized the Secretary to exceed the maximum cost limits established by Section 902 of the Water Resources Development Act of 1996. Award of the Detention Reservoir would have exceeded the 902 limit.

The Missouri Eastern District Court of Appeals has ruled that the City of Cape Girardeau, local sponsor of the project, does have the legal right to condemn property needed for the dry detention reservoir construction, which is outside the City limits. Remaining tracts needed for the dry detention reservoir have been acquired using Federal condemnation procedures.

The project requires no mitigation.


DETENTION RESERVOIR
WATERSHED BOUNDARY
SEWER LINE REPLACES SEWAGE LAGOON LEVEE
REC. FACILITIES
FLOOD OF RECORD MAY 1986
WALKER BRANCH
CAPE GIRARDEAU CORPORATE LIMITS
Cape La Croix Creek
LIMITS OF CHANNEL IMPROVEMENT
WALKER BRANCH
MISSISSIPPI RIVER
CAPE LA CROIX CREEK
55
62
74
61
ILLINOIS
CHESTER
STUDY AREA
MISSOURI
CAPE GIRARDEAU
VICINITY MAP
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
MAP SYMBOLS
CONCRETE CHANNEL
RIP RAP CHANNEL
GRASS CHANNEL
DETENTION RESERVOIR
BRIDGE REPLACEMENTS
SEWER LINE
FLOOD OF RECORD MAY 1986
APPROX. SCALE IN MILES
0 1 2 3 4
CAPE GIRARDEAU – JACKSON, MISSOURI
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General – Local Protection (Flood Control)

PROJECT: Meramec River Basin, Valley Park Levee, Missouri (Continuing)

LOCATION: The project is located in St. Louis County, Missouri, adjacent to the left bank of the Meramec River between miles 20.7 and 22.1 above the confluence with the Mississippi River.

DESCRIPTION: The project provides for construction of 3.2 miles of levee with 3 feet of freeboard above the 100-year flood profile. Six gravity drains and three closure structures will be constructed. Interior drainage facilities consist of five ponding areas. Thirty-three relief wells will be required for underseepage control. Recreational features consist of 2 softball fields, 1 football/soccer field, 1 multi-use court, 15 picnic tables, 2 playgrounds, 1 comfort station, parking facilities, and 2.3 miles of trails. All work is programmed.

AUTHORIZATION: Public Law 97-128, Section 2(h) and the Water Resources Development Acts of 1986 and 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 2.7 to 1 at 8 7/8 percent.

TOTAL BENEFIT-COST RATIO: .9 to 1 at 8 7/8 percent.

INITIAL BENEFIT-COST RATIO: 1.1 to 1 at 8 7/8 percent (FY 1991).

BASIS OF BENEFIT-COST RATIO: Benefits are based on a Post-Authorization Change Report dated 6 August 1999 at October 1999 price levels.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$29,056,000
Estimated Non-Federal Cost		9,787,000
Cash Contribution	$3,285,000[1]	
Other Costs	6,502,000	
Total Estimated Project Cost		$38,843,000

STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	50	Being determined

PHYSICAL DATA	
Levee:	3.2 miles
Gravity Drains:	6
Closure Structures:	3
Ponding Areas:	5
Relief Wells:	33
Recreational Features:	Various

[1] Includes Flood Control Contribution of $3,133,000 and Recreation Contribution of $152,000.

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST
Allocations to 30 September 2000	$16,920,000	
Conference Allowance for FY 2001	3,000,000	
Allocation for FY 2001	1,659,000[1]	
Allocations through FY 2001	18,579,000	64
Allocation Requested for FY 2002	1,200,000	68
Programmed Balance to Complete After FY 2002	$9,277,000	
Unprogrammed Balance to Complete After FY 2002	0	

[1] Reflects $480,000 reduction assigned as savings and slippage; $855,000 reprogrammed from the project; and $6,000 rescinded from the project in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The city of Valley Park, Missouri, has experienced severe flooding from the Meramec River nine times since the early 1900's. The flood of record occurred in December 1982 and caused an estimated $21,624,000 in damages to 108 residential structures and 142 business establishments. This flood had a recurrence interval of approximately once in 70 years. The recommended project will provide 100-year protection to 499 residences and 168 non-residential structures. In order to finance the non-Federal portion of project costs, city officials have instituted a number of innovative techniques including solicitation for the donation of right-of-way required for construction and establishment of a Tax Increment Financing (TIF) District. City residents strongly support the project as demonstrated by attendance at rallies, signs posted in yards and at businesses, and participation in letter-writing campaigns. There are no significant adverse environmental impacts associated with the project. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Reduction	$2,163,900
Recreation	279,600
Total	$2,443,500

FISCAL YEAR 2002: The requested amount will be applied as follows:

Initiate: Levee Item IVB	$ 750,000
Complete: Closure Structure Item IVA	50,000
BNSF Work at Item IVA	25,000
Planning, Engineering, and Design	275,000
Supervision and Administration	100,000
Total	$1,200,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts contained in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way.	$4,145,000	$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for the construction of the project.	2,357,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreation facilities.	152,000	
Pay 8.1 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of the project.	3,133,000	60,000
Total Non-Federal Costs	$9,787,000	$60,000

STATUS OF LOCAL COOPERATION: A Local Cooperation Agreement (LCA) was executed by the City of Valley Park and the Corps of Engineers on 12 August 1992, and an amendment was executed on 23 September 1997 to incorporate administrative language since the initial LCA. Valley Park is funding their lands, relocations, and cash contributions with Tax Increment Financing revenues and general city tax revenues as needed. Operation and maintenance costs will be funded by the city's sales tax, including a ½ cent tax for stormwater, a ½ cent tax for capital improvements, and, if needed, a 1 cent tax for general purposes.

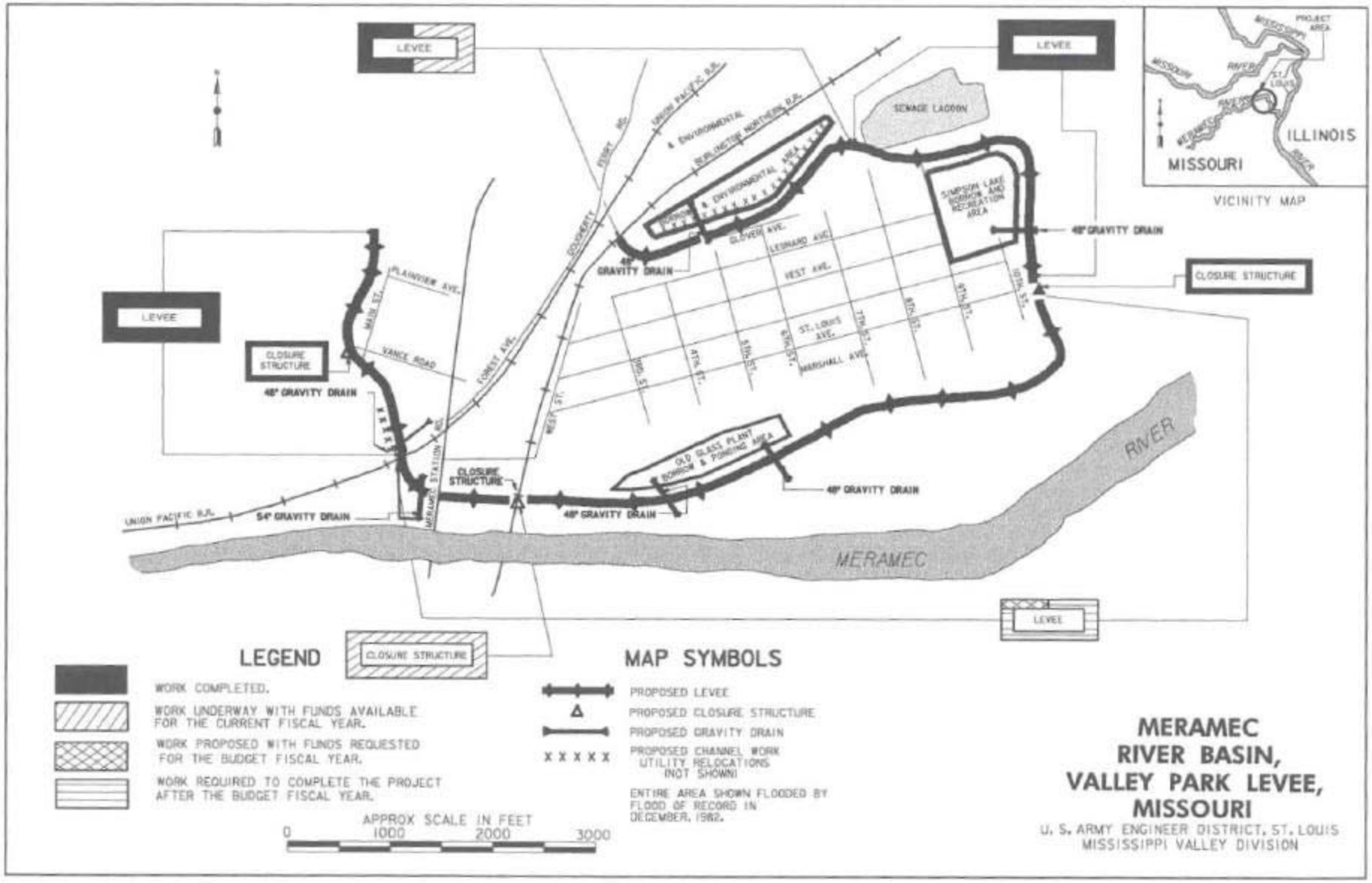
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $29,056,000 is a decrease of $176,000 from the latest estimate ($29,232,000) presented to Congress (FY 2001). This change includes the following item:

Item	Amount
Price Escalation on Construction Features	$ -176,000
Total	$ -176,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: During preparation of the Plan Formulation Report and General Design Memorandum, Main Report, and Environmental Assessment, it was determined that implementation of the recommended plan would not have significant adverse effects on the quality of the human environment. A Finding of No Significant Impact was signed by the District Commander on 9 March 1987.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1983, and funds to initiate construction were appropriated in FY 1991. The project was modified by the Water Resources Development Act of 1999, which authorizes the Secretary to construct the project at maximum Federal expenditure of $35,000,000, if the Secretary determines that the project as modified is technically sound, environmentally acceptable, and economically justified.

The project requires no mitigation.


LEVEE
LEVEE
LEVEE
LEVEE
CLOSURE STRUCTURE
CLOSURE STRUCTURE
CLOSURE STRUCTURE
CLOSURE STRUCTURE
48" GRAVITY DRAIN
48" GRAVITY DRAIN
48" GRAVITY DRAIN
48" GRAVITY DRAIN
48" GRAVITY DRAIN
54" GRAVITY DRAIN
SEWAGE LAGOON
SIMPSON LAKE BORROW AND RECREATION AREA
OLD GLASS PLANT BORROW & PONDING AREA
RIVER
MERAMEC
UNION PACIFIC R.R.
BURLINGTON NORTHERN R.R.
PLAINVIEW AVE.
VANCE ROAD
FOREST AVE.
MAIN ST.
GOODHART
WEST ST.
MERAMEC STATION RD.
GLOVER AVE.
LEONARD AVE.
WEST AVE.
ST. LOUIS AVE.
MARSHALL AVE.
100th ST.
97th ST.
95th ST.
87th ST.
77th ST.
87th ST.
97th ST.
107th ST.
PROJECT AREA
MISSISSIPPI
MISSOURI
RIVER
ST. LOUIS
ILLINOIS
MISSOURI
VICINITY MAP
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
MAP SYMBOLS
PROPOSED LEVEE
PROPOSED CLOSURE STRUCTURE
PROPOSED GRAVITY DRAIN
PROPOSED CHANNEL WORK UTILITY RELOCATIONS (NOT SHOWN)
ENTIRE AREA SHOWN FLOODED BY FLOOD OF RECORD IN DECEMBER, 1982.
APPROX SCALE IN FEET
0 1000 2000 3000
MERAMEC RIVER BASIN, VALLEY PARK LEVEE, MISSOURI
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General – Local Protection (Flood Control)

PROJECT: Ste. Genevieve, Missouri (Continuing)

LOCATION: The project is located in Ste. Genevieve County, Missouri, adjacent to the west bank of the Mississippi River between miles 121 and 125 above the confluence of the Ohio River.

DESCRIPTION: The project includes four parts. Part 1, consists of a 3.5 mile long levee that provides Urban Design Flood protection from Mississippi River flooding; a gravity drain pump facility with a 575 cubic feet per second capacity from three electric-powered pumps; a 505 acre ponding area; interior drainage ditching and grading; two closure structures, road, railroad and utility relocations; 20 relief wells; tree screens; an environmental mitigation area; and other features. Part 2 includes channel widening and one small levee along North Gabouri Creek; Part 3 is channel widening and one small levee along South Gabouri Creek; and Part 4 is recreation facilities such as picnic areas and trails on flood control lands along the tributary improvements and the levee. All work is programmed

AUTHORIZATION: The Water Resources Development Act of 1986 (Public Law 99-662).

REMAINING BENEFIT-REMAINING COST RATIO: 1.0 to 1 at 8-1/4 percent.

TOTAL BENEFIT-COST RATIO: 1.0 to 1 at 8-1/4 percent.

INITIAL BENEFIT-COST RATIO: 1.0 to 1 at 8-1/4 percent (FY 1995).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the authorizing language, which states "...Congress finds that, in view of the historic preservation benefits resulting from the project, the overall benefits of the project exceed the costs of the project."

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$34,710,000	
Estimated Non-Federal Cost		13,236,000	
Cash Contributions	$4,996,000 [1]		
Other Costs	8,240,000		
Total Estimated Project		$47,946,000	
Allocations to 30 September 2000		26,114,000	
Conference Allowance for FY 2001		6,000,000	
Allocation for FY 2001		3,484,000 [2]	
Allocations through FY 2001		29,598,000	
Allocation Requested for FY 2002		850,000	85
Programmed Balance to Complete After FY 2002		$ 4,262,000	88
Unprogrammed Balance to Complete After FY 2002		$ 0	

STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Part 1	98	Sep 2002
Part 2-4	0	Being determined
Entire Project	94	Being determined

PHYSICAL DATA

Part 1	
Road Relocations:	2 locations
Railroad Relocations:	2 locations
Utility Relocations:	4 locations
Levee:	3.5 miles
Gravity Drain:	1
Closure Structures:	2
Pump Station:	575 cfs
Ponding Area:	505 acres
Relief Wells:	20
Part 2 (North Gabouri Creek)	
Channel Widening:	0.62 miles
Bridge Relocations:	2
Part 3 (South Gabouri Creek)	
Channel Widening:	1.23 miles
Bridge Removal:	1
Low Water Cross	1
New Bridges	2
Small Levee:	0.28 miles
Part 4 (Recreation)	
Hiking/Biking Trails:	5.05 miles
Exercise Trail:	1 mile
Picnic Tables:	18
Softball Fields:	2

[1] Includes $149,000 Part 2 cash contribution less $140,000 Part 2 Federal payment, $211,000 Part 3 cash contribution and $108,000 non-Federal payment for recreation.

[2] Reflects $960,000 reduction assigned as Savings and Slippage, $1,544,000 reprogrammed from the project, and $12,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: Ste. Genevieve was founded on the west bank of the Mississippi River by French colonists. The earliest firm documentation of the settlement is a census taken in 1752, although some estimates place the founding as early as 1723. Over a period of years after the flood of 1785, the town was gradually moved from its original location to higher ground at its present location. In 1960 the Secretary of Interior designated a major part of the city and the agricultural fields between the town and the river a national Historic Landmark District. Ste. Genevieve was in the first group of six landmark districts so designated, a group that included Williamsburg, Virginia; Charleston, South Carolina; and Old Deerfield, Massachusetts. Ste. Genevieve is significant and unique because it has been occupied continuously since it was settled and because many of its earliest French colonial buildings were not destroyed during the intervening years. One fourth of all of North America's French colonial buildings are located in Ste. Genevieve. Ste. Genevieve contains the only collection of French colonial houses anywhere on the continent. Its many old residences, its archives and traditions, and its historical continuity make it a living memorial to the settlement and development of America. Most of the National Historic Landmark District was subject to flooding. The town had no Federally constructed flood protection, although agricultural areas directly across the Mississippi River and up and downstream from Ste. Genevieve are protected by Federally constructed levees. The community suffered major Mississippi River floods in 1973, 1979, 1982,1983, 1986, 1990, 1993 and 1995. The 1973 flood caused an estimated $3,000,000 in damages in Ste. Genevieve. Damages from the 1982 flood were estimated by local officials to be $2,400,000. The 1993 flood reached a stage equal to the theoretical 500-year flood in Ste. Genevieve, more than 22 feet above flood stage. Most of the historic buildings were saved by a monumental flood fight effort. According to community officials, bills received from the flood fight totaled $2,000,000; not including donated materials and volunteer time. Volunteers came from all over the United States to fight the flood. This figure does not include flood damages or post-flood recovery. The 1995 flood was the second highest flood on record in Ste. Genevieve. Other Mississippi River floods occurred in Ste. Genevieve more frequently than the major floods and the community frequently prepared for flood fights. The town is also damaged by flooding along North and South Gabouri Creeks due to local rainfall, but the number of buildings flooded by the creeks is small compared to those flooded by the Mississippi River. As stated in the authorizing language, average annual benefits are equal to average annual costs due to historic preservation benefits.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Complete: Relief Wells	$ 400,000
Levee/Ditching/Grading	50,000
Planning, Engineering, and Design	350,000
Supervision and Administration	50,000
Total	$850,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts contained in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operations, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way.	$ 3,299,000	$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for the construction of the project	4,941,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreation facilities.	108,000	2,000
Pay 10.2 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	4,888,000	133,000
Total Non-Federal Costs	$ 13,236,000	$ 135,000

STATUS OF LOCAL COOPERATION: The project sponsor is the Ste. Genevieve Joint Levee Commission, which is composed of members from the City of Ste. Genevieve, Ste. Genevieve County Levee District Number 2, and Ste. Genevieve County Levee District Number 3. The City assembled the financing to cover the first cost of Part 1 of the project, and possibly Parts 2, 3 and 4 depending on how they may be redesigned in the future. This financing consists of a city sales tax passed in November 1994 that generates about $240,000 per year and does not expire until the project is completed, a grant of $5,500,000 from the National Park Service through the National Trust for Historic Preservation, and a $5,050,000 Community Development Block Grant from the State of Missouri. The commission will purchase the lands required for the project through the powers of Levee Districts 2 and 3, will use the Federal Power of eminent domain, and will operate and maintain the project by using Levee District 3's power to impose property taxes for operating and maintaining flood protection works. The Project Cooperation Agreement was executed on 8 August 1995.

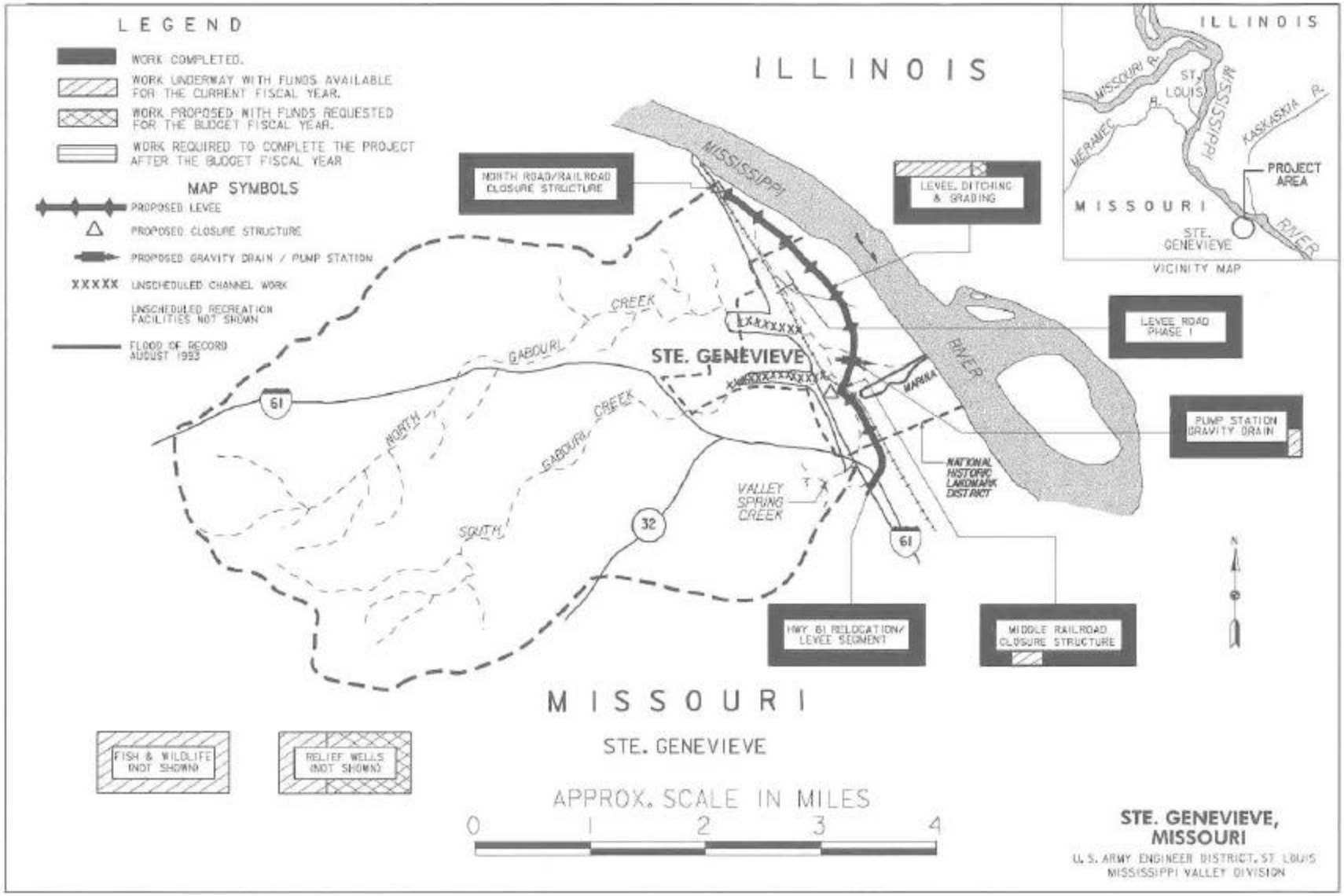
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $34,710,000 is an increase of $178,000 from the latest estimate ($34,532,000) presented to Congress (FY 2001). This change includes the following item:

Item	Amount
Price Escalation on Construction Features	$ 178,000
Total	$ 178,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement was completed as part of the Feasibility Report in June 1984. An Environmental Assessment with a Finding of No Significant Impact was signed by the District Commander on 30 January 1995.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1990 and funds to initiate construction were appropriated in Fiscal Year 1995. A portion of a levee access road was constructed in Fiscal Year 1995.

The Phase 1 levee project requires environmental mitigation due to adverse impacts on 11.2 acres classified as “waters of the United States.” A 28.4 acre wetland mitigation area is included in Part 1 of the project. Estimated fish and wildlife mitigation costs are $146,000.


LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
MAP SYMBOLS
PROPOSED LEVEE
PROPOSED CLOSURE STRUCTURE
PROPOSED GRAVITY DRAIN / PUMP STATION
XXXXX UNSCHEDULED CHANNEL WORK
UNSCHEDULED RECREATION FACILITIES NOT SHOWN
FLOOD OF RECORD AUGUST 1993
ILLINOIS
MISSISSIPPI
RIVER
NORTH ROAD/RAILROAD CLOSURE STRUCTURE
LEVEE, DITCHING & GRADING
LEVEE ROAD PHASE I
PUMP STATION GRAVITY DRAIN
HWY 61 RELOCATION/ LEVEE SEGMENT
MIDDLE RAILROAD CLOSURE STRUCTURE
STE. GENEVIEVE
GABOURI CREEK
NORTH GABOURI CREEK
SOUTH
VALLEY SPRING CREEK
MARINA
NATIONAL HISTORIC LANDMARK DISTRICT
61
32
MISSOURI
STE. GENEVIEVE
FISH & WILDLIFE (NOT SHOWN)
RELIEF WELLS (NOT SHOWN)
APPROX. SCALE IN MILES
0 1 2 3 4
ILLINOIS
MISSOURI R.
ST. LOUIS
MISSISSIPPI R.
KASKASKIA R.
MERAMEC R.
PROJECT AREA
MISSOURI
STE. GENEVIEVE
RIVER
VICINITY MAP
STE. GENEVIEVE, MISSOURI
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General – Local Protection (Flood Control)

PROJECT: Grand Forks, North Dakota – East Grand Forks, Minnesota (Continuing)

LOCATION: Grand Forks is located in Grand Forks County in eastern North Dakota along the Red River of the North about 70 miles south of the Canadian border. East Grand Forks is located in Polk County in northwestern Minnesota across the river from Grand Forks.

DESCRIPTION: The National Economic Development and Locally Preferred Plan is a set-back flood barrier project with a level of protection for the 0.47 percent exceedence frequency event. This level of protection is equivalent to the 1997 flood. The project will consist of 30.0 miles of levees, floodwalls, and road raises. Approximately 260 residential structures will need to be acquired for project construction. All work is programmed.

AUTHORIZATION: Omnibus Consolidated and Emergency Supplemental Appropriations Act 1999, Section 137 (Public Law 105-277).

REMAINING BENEFIT-REMAINING COST RATIO: 1.4 to 1 at 7 1/8 percent.

TOTAL BENEFIT-COST RATIO: 1.12 to 1 at 7 1/8 percent.

INITIAL BENEFIT-COST RATIO: 1.12 to 1 at 7 1/8 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in December 1998 at December 1997 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		$158,908,000				
Future Federal Reimbursement		19,892,000				
Estimated Federal Cost (Ultimate)		178,800,000		Entire Project	5	Being determined
Estimated Non-Federal Cost		177,100,000				
Cash Contribution	$ 23,342,000					
Other	173,650,000					
Reimbursement: Flood Control	-19,892,000					
Total Estimated Project Cost		$355,900,000				
Allocations to 30 September 2000		13,470,000				
Conference Amount for FY 2001		13,044,000				
Allocation for FY 2001		13,271,000 [1]				
Allocations through FY 2001		26,741,000	15			
Allocation Requested for FY 2002		25,954,000	30			
Programmed Balance to Complete after FY 2002		126,105,000				
Unprogrammed Balance to Complete after FY 2002		0				

PHYSICAL DATA

Permanent Levees	26.6 miles	Pumping Stations	16
Tieback Levees	3.3 miles	Major Gatewells	2
Road Raises	9	English Coulee Diversion Channel	4.5 miles
Hartsville Coulee Diversion Channel	1.2 miles		

[1] Reflects $2,087,000 reduction assigned as savings and slippage, $2,340,000 reprogrammed to the project and $26,000 rescinded in accordance with the Consolidate Appropriations Act, 2001.

JUSTIFICATION: Since 1950, twelve floods have threatened the Grand Forks-East Grand Forks area. Until 1997, a permanent levee in one short reach of Grand Forks, plus flood fight efforts in other areas of the two cities have prevented significant damages. The catastrophic flood of 1997 was the largest ever experienced in the area. Despite major emergency flood fight efforts, both cities were inundated. Estimates indicate that over $1.5 billion in damages were sustained in the two cities as a result of the 1997 flood. The threat of future flooding has led to a sense of urgency for an expedited permanent solution. The recommended plan would provide certifiable and reliable flood control for residents of Grand Forks and East Grand Forks. Average annual benefits are as follows:

Annual Benefits	Amount (1 October 2000)
Flood Control	$30,514,000
Recreation	2,106,400
Total	$32,620,400

FISCAL YEAR 2002: The requested amount of $25,954,000 will be applied as follows:

Initiate: Hartsville Coulee Diversion Construction	$ 1,004,000
Continue: Levee Construction in East Grand Forks (Stage 6A)	6,000,000
Levee Construction in Grand Forks (Stage 5A)	6,000,000
English Coulee (Stage 2) Construction	6,500,000
Real Estate Activities	200,000
Planning, Engineering and Design	3,400,000
Supervision and Administration	2,850,000
Total	$25,954,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way, and borrow and excavated or dredged material disposal areas.	$123,205,000	$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	50,445,000	
Pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	17,099,000	1,012,250
Pay one-half of the separable and joint costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	6,243,000	346,750
Federal reimbursement to non-Federal sponsor for costs incurred in excess of 50 percent of the costs allocated to flood control.	-19,892,000	
Total Non-Federal Costs	$177,100,000	$1,359,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The non-Federal sponsors are the cities of Grand Forks, North Dakota and East Grand Forks, Minnesota. A Project Cooperation Agreement was executed in January 2000. The non-Federal funding requirements will be met using reallocation of existing taxes, implementation of a new use tax, a city-wide assessment, and state bond funds. The District Commander approved the sponsors financing plans on 21 October 1999.

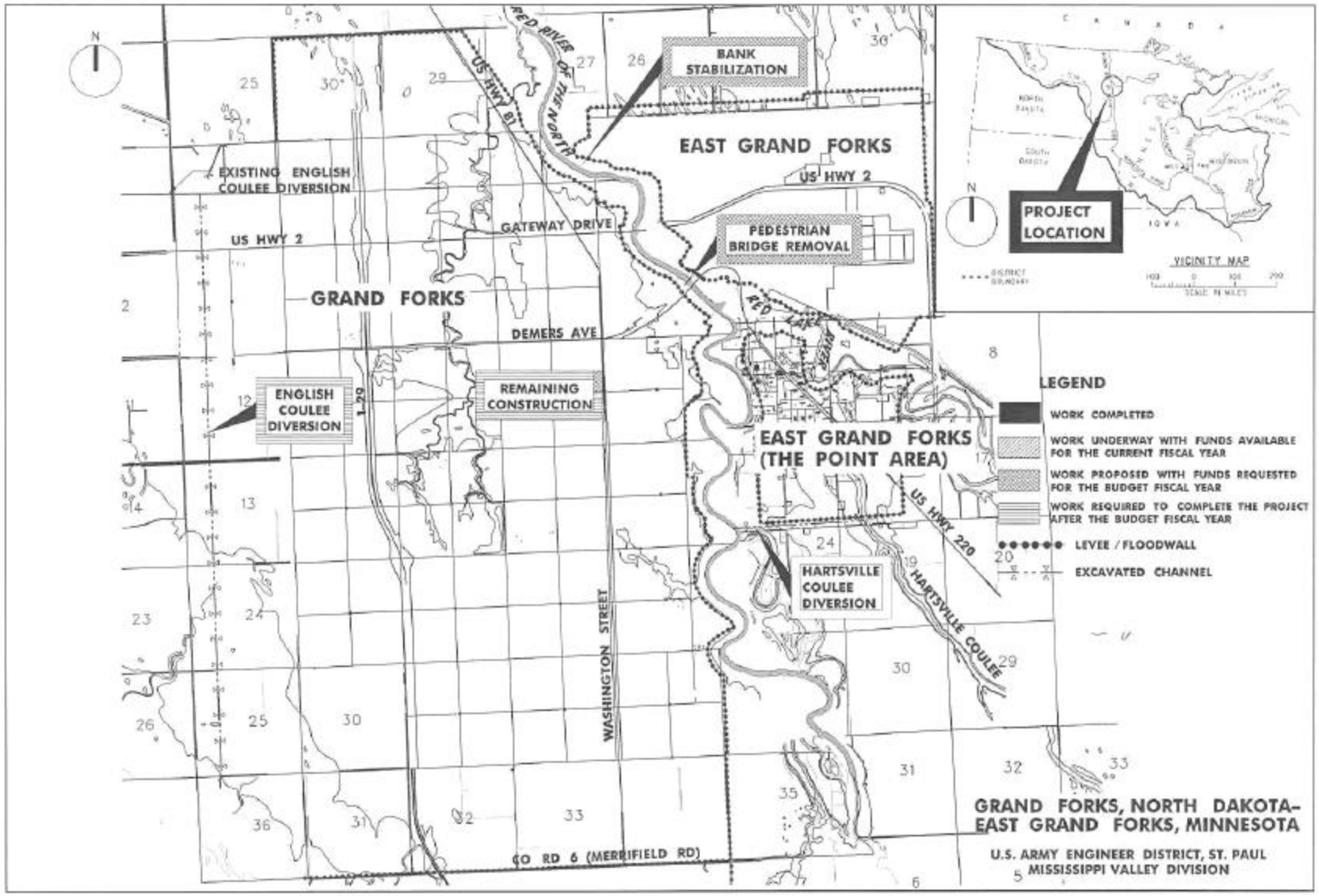
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $178,800,000 is a decrease of $2,100,000 from the latest estimate ($180,900,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$-1,147,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	-953,000
Total	$-2,100,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement was prepared in conjunction with the General Reevaluation Report which was completed in December 1998. The Record of Decision was signed 17 February 1999.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1997. Funds to initiate construction were appropriated in FY 2000. A General Design Memorandum for the East Grand Forks project, authorized by Flood Control Acts of 1948, 1950 and 1970, was completed in December 1986. The report recommended a flood control project that would reduce flood damages and provide some recreation benefits. The structural portion of the project consisted of a flood barrier around the part of the city north of the Red Lake River. Components included levees, floodwalls, closure structures, and interior drainage facilities with one pumping station and eight outlets to the river. Nonstructural measures north of the Red Lake River included evacuation of residences and businesses that are riverward of the flood barrier. In July 1988, the city withdrew its support citing high local costs and evacuation of residential and commercial structures and because the project would only protect two-thirds of the city. The April 1997 flood that devastated the East Grand Forks area resulted in renewed interest for a permanent flood control solution for the city. The original East Grand Forks authorization was used as the basis to request funds to resume Preconstruction Engineering and Design in FY 1997.

A General Reevaluation Report and Environmental Impact Statement was completed in December 1998. The Report contained the plan formulation process used to identify a setback flood barrier project that would provide protection equal to the 1997 flood event, including the evaluation of risk and uncertainty. Both communities support the setback flood barrier plan, which is the National Economic Development Plan. Conditional project authorization (subject to a Chief's Report) was contained in the Omnibus Consolidated and Emergency Supplemental Appropriations Act of 1999 (Public Law 105-277). The Chief's Report was completed in December 1998.


BANK STABILIZATION
EAST GRAND FORKS
US HWY 2
PEDESTRIAN BRIDGE REMOVAL
EXISTING ENGLISH COULEE DIVERSION
US HWY 2
GATEWAY DRIVE
GRAND FORKS
DEMERS AVE
ENGLISH COULEE DIVERSION
I-29
REMAINING CONSTRUCTION
EAST GRAND FORKS (THE POINT AREA)
HARTSVILLE COULEE DIVERSION
WASHINGTON STREET
US HWY 220
HARTSVILLE COULEE
RED RIVER OF THE NORTH
US HWY 81
CO RD 6 (MERRIFIELD RD)
PROJECT LOCATION
VICINITY MAP
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
LEVEE / FLOODWALL
EXCAVATED CHANNEL
GRAND FORKS, NORTH DAKOTA-
EAST GRAND FORKS, MINNESOTA
U.S. ARMY ENGINEER DISTRICT, ST. PAUL
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General-Local Protection (Flood Control)

PROJECT: Sheyenne River, North Dakota (Continuing)

LOCATION: The project is located in southeastern North Dakota along the Sheyenne River, from near Baldhill Dam downstream to the confluence with the Red River of the North at Fargo. Parts of Griggs, Steele, Barnes, Ransom, Richland and Cass Counties are included in the project area.

DESCRIPTION: The project, as authorized, consists of (1) 12.7 miles of levees and a 6.8-mile flood diversion channel at West Fargo, (2) 14.8 miles of levees and a 7.4 mile flood diversion channel from Horace to West Fargo, (3) a 5-foot raise of the Baldhill Dam flood control pool, and (4) a dam and reservoir with approximately 35,000 acre-feet of storage for flood control on the Maple River. The plan, excluding the Maple River dam, would remove about 2,000 residences and farmsteads from the 100-year floodplain and reduce flood damages on more than 50,000 acres of agricultural land. Estimated damages caused by a one percent chance flood are $109 million. On an average annual basis, over $28 million in flood damages are estimated in the basin. Most of these damages occur in the West Fargo urban area.

Construction includes the West Fargo Unit ($16,859,000 Federal and $7,341,000 Non-Federal), the Horace to West Fargo Unit ($8,773,000 Federal and $3,127,000 Non-Federal), and the Baldhill Dam Unit ($6,975,000 Federal and $2,325,000 Non-Federal). All work is programmed.

The Maple River Reservoir Unit was deleted from the project due to lack of economic justification.

AUTHORIZATION: Water Resources Development Act of 1986 (Public Law 99-662).

REMAINING BENEFIT-REMAINING COST RATIO: 1.4 to 1 at 7 1/8 percent.

TOTAL BENEFIT-COST RATIO: 1.1 to 1 at 7 1/8 percent.

INITIAL BENEFIT-COST RATIO: 1.1 to 1 at 7 1/8 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits for the remaining unit, the Baldhill Pool Raise, are from the latest available evaluation (Design Memorandum) dated November 1998, revised June 1999, at October 1997 price levels. Benefits for the West Fargo Unit are from the Letter Report dated January 2001, at October 2000 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$32,607,000		West Fargo Unit	100	Dec 1994
Estimated Non-Federal Cost		12,793,000		Horace to West Fargo Unit	100	Nov 1992
Cash Contributions	$ 2,610,000			Baldhill Dam Unit	75	Being determined
Other Costs	10,183,000					
Total Estimated Project Cost		$45,400,000[1]		Total Project	90	Being determined
Allocations to 30 September 2000		$26,344,000[2]				
Conference Allowance for FY 2001		2,600,000				
Allocation for FY 2001		2,179,000[3]				
Allocations through FY 2001		$28,523,000	87			
Allocation Requested for FY 2002		$2,000,000	94			
Programmed Balance to Complete after FY 2002		2,084,000				
Unprogrammed Balance to Complete after FY 2002		0				

PHYSICAL DATA

WEST FARGO UNIT:

Earthen Levee	12.7 miles
Flood Diversion Channel	6.8 miles

HORACE TO WEST FARGO UNIT:

Trapezoidal Excavated Channel	7.4 miles
Earthen Levees	14.8 miles

BALDHILL DAM UNIT:
Flood Control Pool Raise 5-foot raise
(by modifications to gates - not embankment)

JUSTIFICATION: The Sheyenne River, located in the southeastern portion of North Dakota, drains 7,140 square miles into the Red River of the North which flows northward to Lake Winnipeg in Manitoba, Canada. Recurrent flooding causes serious damage at the communities of Valley City, Lisbon, and West Fargo, and along the Sheyenne River. High Sheyenne River flows also aggravate downstream flooding along the Red River of the North. The maximum flood of record in 1882 inundated much of Valley City and Kindred. Over 100,000 acres of cropland in the basin were flooded by the Red River of the North and the Sheyenne, Wild

[1] Excludes all costs associated with the Maple River Unit. The Maple River Unit has been deleted from the project due to lack of economic justification.
[2] Excludes $475,000 sunk cost for the Maple River Unit and $1,150,000 for Kindred Dam.
[3] Reflects $416,000 reduction assigned as savings and slippage, and $5,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

Rice, and Maple Rivers. On 5 July 1975, the flood in the Sheyenne River basin crested at Kindred within 0.3 foot of the record flood, and the crest at West Fargo set a new record. Actual flood damages for this flood were $96,762,000 of which $2,132,000 were urban and $94,630,000 were rural. Urban flood damages of $14,159,000 were prevented due to emergency levee protection. The rural damages include cross-country (sheet flow) as well as overbank flooding. In 1979, the Sheyenne River at West Fargo reached a flow of 3,500 cubic feet per second and a stage .03 foot less than the 1975 summer flood. Damages including the cost of successful flood fights were $7,388,000, of which $1,903,000 were urban, $4,676,000 agricultural, and $809,000 transportation. In July and August 1993, intense rainstorms over the Sheyenne, Maple and Rush River watersheds caused flood damages in many areas. In Valley City, an estimated $3 million in flood damages were incurred. In the Harwood area, just downstream from the West Fargo levees and diversion project, widespread agricultural and rural residential damages were sustained. Both the Horace and the West Fargo levees and diversion projects prevented substantial damages ($8 million and $36 million respectively) in their first year of operation. The average annual flood damages for the Sheyenne River basin from overbank flooding over an assumed 100-year period at October 1994 price levels are estimated at $39,905,061, of which $37,506,749 are urban, $2,053,546 agricultural and $344,766 transportation. The recommended improvements will protect about 2,000 residences and farmsteads in the 100-year floodplain and reduce flood damages on over 50,000 acres of agricultural land. The average annual flood control benefits are $22,374,600.

FISCAL YEAR 2002: The requested amount of $2,000,000 will be applied as follows:

BALDHILL DAM UNIT (Pool Raise):

Continue construction of gate replacement	$ 510,000
Initiate construction of Wesley Acres protection	360,000
Complete construction of cabin modifications	130,000
Initiate and complete construction of mitigation area	180,000
Planning, Engineering & Design	140,000
Supervision and Administration	180,000
Subtotal	$ 1,500,000

WEST FARGO UNIT:

Initiate construction of pump station	$ 400,000
Planning, Engineering & Design	70,000
Supervision and Administration	30,000
Subtotal	$ 500,000
Total	$2,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
WEST FARGO UNIT:		
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$1,280,000	$
Modify or relocate utilities, roads, bridges, (except railroad bridges), and other facilities, where necessary for the construction of the project.	4,854,000	
Pay 5 percent of the costs allocated to flood control in cash and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	1,207,000	38,000
Subtotal	$7,341,000	$ 38,000

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
HORACE TO WEST FARGO UNIT:		
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$ 540,000	$
Modify or relocate utilities, roads, bridges, (except railroad bridges), and other facilities, where necessary for the construction of the project.	2,014,000	
Pay 5 percent of the costs allocated to flood control in cash and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	573,000	32,800
Subtotal	$3,127,000	$ 32,800
BALDHILL DAM POOL RAISE:		
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$ 1,495,000	$
Pay 8.9 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986 and bear all costs of operation, maintenance, repair, rehabilitation and replacement of Flood Control Facilities.	830,000	3,200
Subtotal	$ 2,325,000	$ 3,200
Total Non-Federal Cost	$12,793,000	$ 74,000

The non-Federal sponsors have also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Southeast Cass Water Resource District is the local sponsor for the West Fargo Unit and the Horace to West Fargo Unit. The Local Cooperation Agreement (LCA) for the West Fargo Unit was executed on 25 July 1988. An amendment to the LCA will be executed prior to initiation of design and construction of the additional pump station. (SEE OTHER INFORMATION.) The LCA for the Horace Unit was executed on 6 March 1990. Both of these units are scheduled to be turned over to Southeast Cass Water Resource District in 2000. In April 1994, the Sheyenne River Joint Water Resource District (WRD) was formed to act as the non-Federal sponsor for the flood control pool raise at the Baldhill Dam. The Joint WRD consists of seven member water resource districts, including both upstream and downstream representatives. The Project Cooperation Agreement for the Baldhill Pool Raise was executed on 31 May 2000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $32,607,000 is an increase of $1,717,000 from the latest estimate ($30,890,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 177,000
Post Contract Award and Other Estimating Adjustments	1,540,000
Total	$1,717,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Draft Environmental Impact Statement was filed with the Environmental Protection Agency (EPA) on 28 May 1982. The final statement was filed with the EPA on 13 April 1984. The Record of Decision was signed on 6 June 1987. The Finding of No Significant Impact for modifications to the Baldhill Dam Unit was signed on 19 October 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1976 and funds to initiate construction were appropriated in FY 1990. Floods occurred in 1994, 1995, 1996, and 1997, during which the performance of the Horace and West Fargo Units was excellent, meeting all expectations. A significant rainfall event in June 2000 overwhelmed the pump station for the West Fargo Unit, requiring numerous portable pumps to keep the interior ponding level of the Sheyenne River in check. At the request of the local sponsor, the interior flood control for the unit was reevaluated, and an additional 63,000 gpm pump station was recommended in a Letter Report dated January 2001 in order to provide the authorized level of protection.

SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS:

WEST FARGO UNIT:

Estimated Federal Cost		$16,859,000
Estimated Non-Federal Cost		7,341,000
Cash Contributions	$1,207,000	
Other Costs	6,134,000	
Total West Fargo Unit		$24,200,000

REMAINING BENEFIT-REMAINING COST RATIO FOR WEST FARGO UNIT: The remaining benefit-remaining cost ratio is not applicable since construction is substantially complete.

TOTAL BENEFIT-COST RATIO FOR WEST FARGO UNIT: Total benefit-cost ratio for the entire project is 1.1 to 1 at 7-1/8 percent..

HORACE TO WEST FARGO UNIT:

Estimated Federal Cost		$ 8,773,000
Estimated Non-Federal Cost		3,127,000
Cash Contributions	$ 573,000	
Other Costs	2,554,000	
Total Horace to West Fargo Unit		$11,900,000

REMAINING BENEFIT-REMAINING COST RATIO FOR HORACE TO WEST FARGO UNIT: The remaining benefit-remaining cost ratio is not applicable since construction is substantially complete.

TOTAL BENEFIT-COST RATIO FOR HORACE TO WEST FARGO UNIT: Total benefit-cost ratio for the entire project is 1.1 to 1 at 7-1/8 percent.

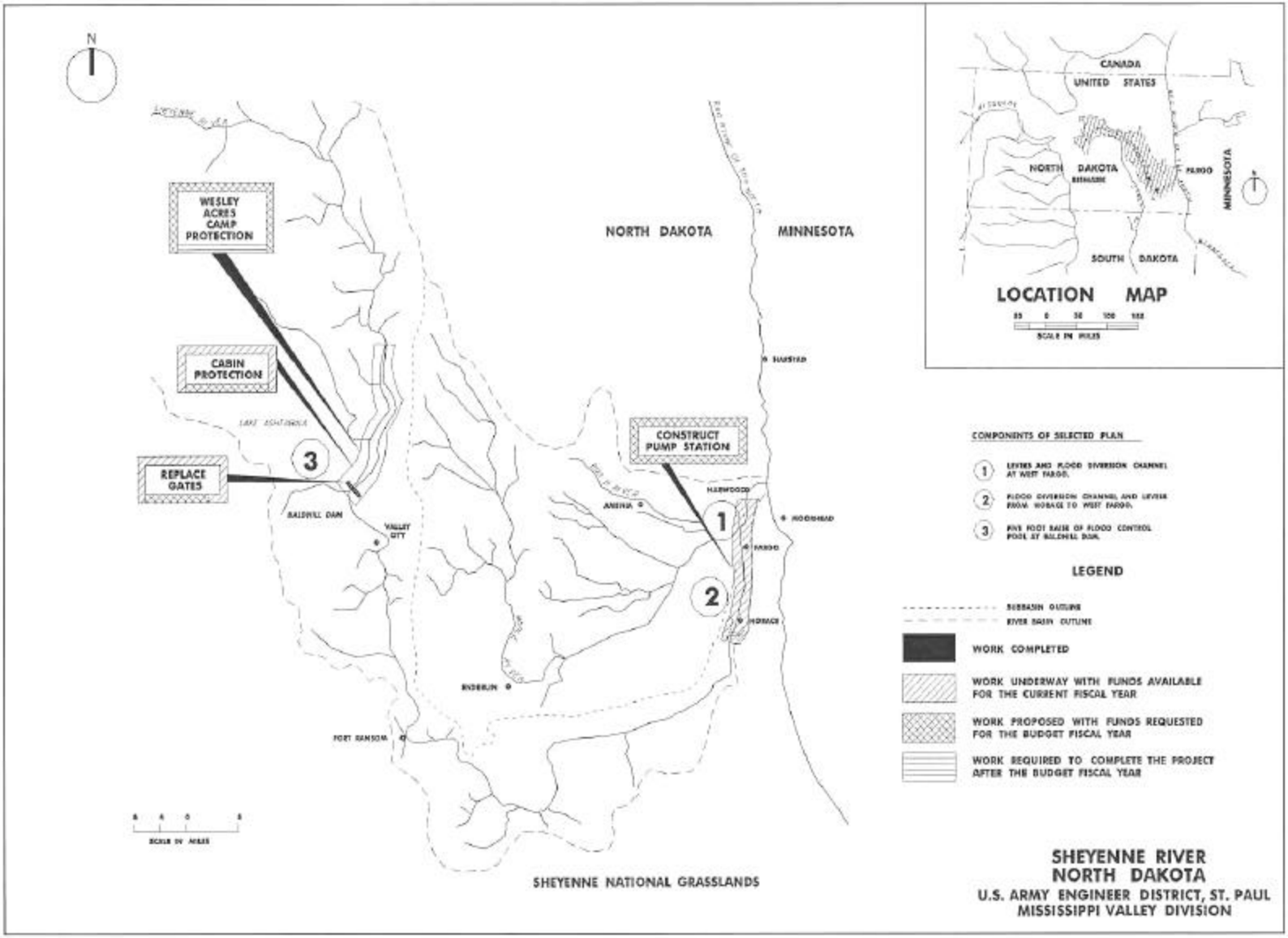
SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS (Continued):

BALDHILL DAM UNIT:

Estimated Federal Cost		$6,975,000
Estimated Non-Federal Cost		2,325,000
Cash Contributions	$830,000	
Other Costs	1,495,000	
Total Baldhill Dam Unit		$9,300,000

REMAINING BENEFIT-REMAINING COST RATIO FOR BALDHILL DAM UNIT: The remaining benefit-remaining cost ratio is 1.4 to 1 at 7-1/8 percent.

TOTAL BENEFIT-COST RATIO FOR BALDHILL DAM UNIT: Total benefit-cost ratio for the entire project is 1.1 to 1 at 7-1/8 percent.


N
WESLEY ACRES CAMP PROTECTION
CABIN PROTECTION
REPLACE GATES
CONSTRUCT PUMP STATION
3
1
2
NORTH DAKOTA
MINNESOTA
BALDWIN DAM
VALLEY CITY
ANSELM
HARWOOD
FARGO
HORACE
HUNTER
MOORHEAD
RIDERUN
FORT RANSOM
SCALE IN MILES
SHEYENNE NATIONAL GRASSLANDS
CANADA
UNITED STATES
NORTH DAKOTA
SOUTH DAKOTA
MINNESOTA
LOCATION MAP
COMPONENTS OF SELECTED PLAN
1 LEVEES AND FLOOD DIVERSION CHANNEL AT WEST FARGO.
2 FLOOD DIVERSION CHANNEL AND LEVEES FROM HORACE TO WEST FARGO.
3 FIVE FOOT RAISE OF FLOOD CONTROL POOL AT BALDWIN DAM.
LEGEND
SUBBASIN OUTLINE
RIVER BASIN OUTLINE
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
SHEYENNE RIVER
NORTH DAKOTA
U.S. ARMY ENGINEER DISTRICT, ST. PAUL
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General – Reservoir (Flood Control)

PROJECT: LaFarge Lake, Kickapoo River, Wisconsin, Project Modification (Continuing)

LOCATION: LaFarge is located in Vernon County in southwestern Wisconsin along the Kickapoo River, a tributary of the Wisconsin River.

DESCRIPTION: The proposed project modification involves transfer to the State of Wisconsin of approximately 8,569 acres of land associated with the LaFarge Dam and Lake portion of the Kickapoo River, Wisconsin, flood control project. Up to 1,200 acres of this land that are culturally and religiously significant sites of the Ho-Chunk Nation will be transferred to the Secretary of the Interior. The modification also includes deauthorizing the construction of the reservoir and dam, while completing other features of the original project. These features include the reconstruction of State Highway 131 and County Routes P and F, the completion of all necessary environmental cleanups; site safety modifications of the water control structures, and the fulfillment of the Federal requirements of the Advisory Council on Historical Preservation. All work is programmed.

AUTHORIZATION: Flood Control Act of 1962 and Water Resources Development Act of 1996.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: Not applicable.

INITIAL BENEFIT - COST RATIO: Not applicable.

BASIS OF BENEFIT - COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$17,000,000		Entire Project	25	Being determined
Estimated Non-Federal Cost	0				
Total Estimated Project Cost	$17,000,000		PHYSICAL DATA		
Allocations to 30 September 2000	5,796,000		Land Transfer		8,569 Acres
Conference Amount for FY 2001	2,000,000		Road Reconstruction		
Allocation for FY 2001	1,676,000 [1]		1 State highway		
Allocations through FY 2001	7,472,000	44	2 County roads		

[1] Reflects $320,000 reduction assigned as savings and slippage and $4,000 rescinded from the project in accordance with the Consolidated Appropriations Act, 2001.

SUMMARIZED FINANCIAL DATA (Continued)

Allocation Requested for FY 2002	5,150,000	74
Programmed Balance to Complete after FY 2002	4,378,000	
Unprogrammed Balance to Complete after FY 2002	0	

JUSTIFICATION: The original project, authorized in the 1962 Flood Control Act, included a dam and impoundment on the Kickapoo River primarily for flood control, and supplemental flood protection at Soldiers Grove and Gays Mills. Construction of the original project was initiated in July 1971, but was suspended in July 1975 due to alleged water quality problems and lack of support by the Governor and Congressmen of the State of Wisconsin. Land acquisition was about 80 percent complete. Subsequent studies indicated that there was no feasible and acceptable alternative to the flooding in the Kickapoo Valley involving a wet or dry dam at LaFarge. Project lands were transferred to the State of Wisconsin and Department of Interior in December 2000. Prior to the transfer site safety modifications; remediation of abandoned farm sites, wells, and solid waste; and fulfillment of cultural and historical requirements were met. The project feature remaining to be completed is relocation of State Highway 131 and County Highways P and F.

FISCAL YEAR 2002: The requested amount of $5,150,000 will be applied as follows:

Real Estate Activities	$ 5,000
Planning, Engineering and Design	15,000
Reimbursement of Hwy 131, P & F Work (Contract with Wisconsin)	5,130,000
Total	$5,150,000

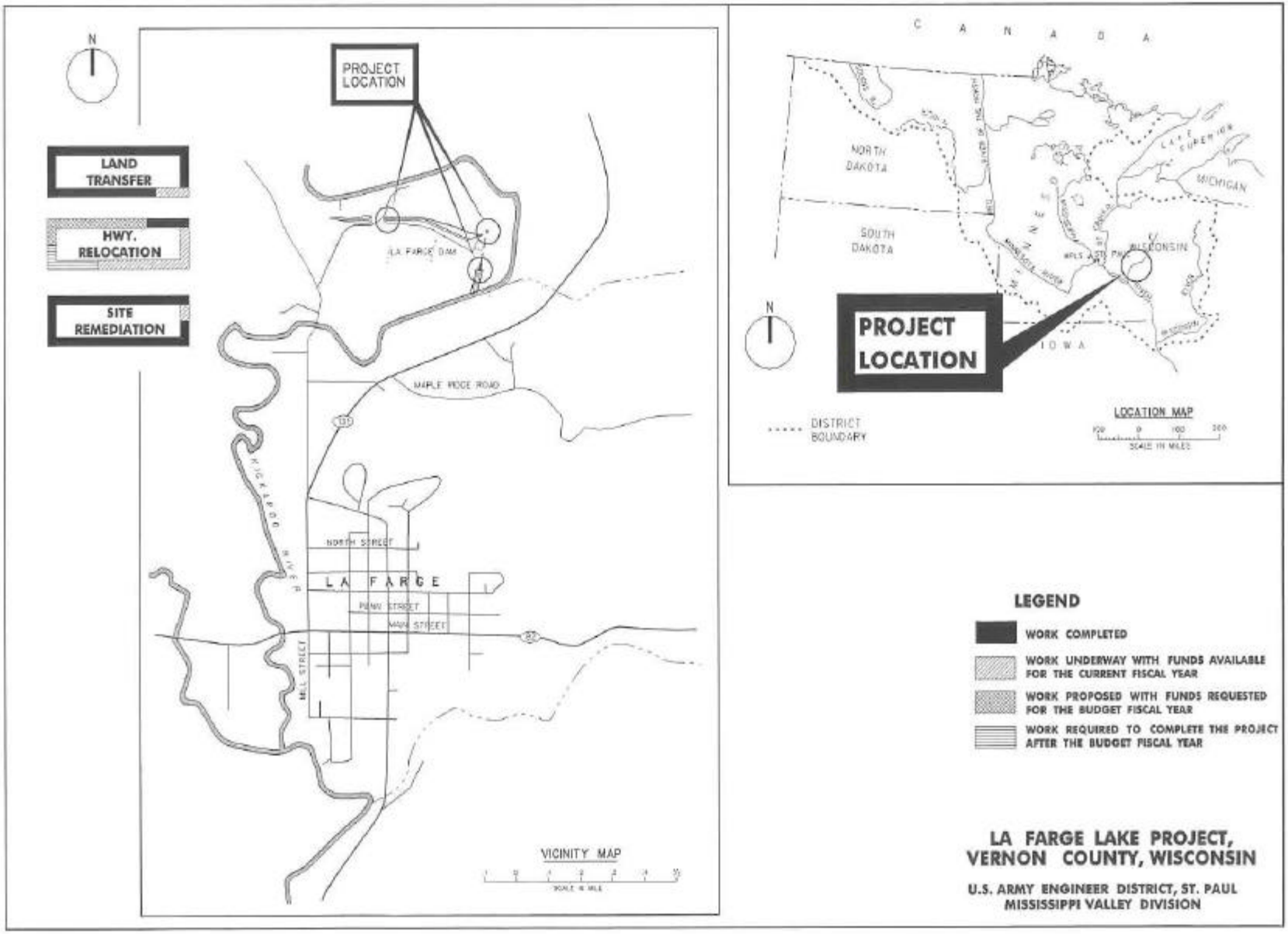
NON-FEDERAL COST: Not applicable.

STATUS OF LOCAL COOPERATION: The State of Wisconsin created the Kickapoo Reserve Management Board (KRMB), a Governor appointed board of citizens from the watershed, including Ho-Chunk Nation members. KRMB was created in 1993 to oversee administration of the lands transferred to the State.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $17,000,000 is the initial project cost estimate presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The St. Paul District completed a Programmatic Agreement with regard to the cultural and historical resources in October 1997. The Environment Assessment for transfer of the land was completed in February 2000. The USFWS Coordination Act Report is complete. An Environmental Assessment to fund the Highway relocations was completed in January 2001.

OTHER INFORMATION: Funds to initiate construction were appropriated in Fiscal Year 1971.


N
PROJECT LOCATION
LAND TRANSFER
HWY. RELOCATION
SITE REMEDIATION
LA FARGE DAM
MAPLE RIDGE ROAD
131
KICKAPOO RIVER
NORTH STREET
LA FARGE
PENN STREET
MAIN STREET
MILL STREET
82
VICINITY MAP
SCALE IN MILE
C A N A D A
NORTH DAKOTA
SOUTH DAKOTA
LAKE SUPERIOR
MICHIGAN
WISCONSIN
IOWA
MINNESOTA
MINNESOTA RIVER
MISSISSIPPI RIVER
N
PROJECT LOCATION
DISTRICT BOUNDARY
LOCATION MAP
SCALE IN MILES
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
LA FARGE LAKE PROJECT, VERNON COUNTY, WISCONSIN
U.S. ARMY ENGINEER DISTRICT, ST. PAUL
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General - Reservoirs (Dam Safety Assurance)

PROJECT: Homme Dam, North Dakota (Continuing)

LOCATION: Homme Dam is located in Walsh County in northeastern North Dakota, about two miles west of the city of Park River. The dam is on the South Branch of the Park River, at river mile 62.1 above the main stem's confluence with the Red River of the North. The drainage area above Homme Dam is 226 square miles.

DESCRIPTION: One of the principle features of the dam is a reinforced concrete flat-crested spillway and stilling basin located on the right abutment of the reservoir. The recommended plan includes construction of a new spillway that increases the existing capacity from 44 percent to 100 percent of the probable maximum flood. All work is programmed.

AUTHORIZATION: Flood Control Act of 1944.

REMAINING BENEFIT-REMAINING COST RATIO: No detailed economic analysis has been performed on this project.

TOTAL BENEFIT-COST RATIO: No detailed economic analysis has been performed on this project.

INITIAL BENEFIT-COST RATIO: No detailed economic analysis has been performed on this project.

BASIS OF BENEFIT-COST RATIO: No detailed economic analysis has been performed on this project.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$12,400,000		Entire Project	15	Being determined
Estimated Non-Federal Cost	85,000				
Total Estimated Project Cost	$12,485,000				
Allocations to 30 September 2000	3,478,000				
Conference Amount for FY 2001	8,000,000				
Allocation for FY 2001	5,234,000 [1]				
Allocations through FY 2001	8,712,000	70			

[1] Reflects $1,280,000 reduction assigned as savings and slippage; $1,470,000 reprogrammed from the project; and $16,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocation Requested for FY 2002	2,400,000	90
Programmed Balance to Complete after FY 2002	1,288,000	
Unprogrammed Balance to Complete after FY 2002	0	

JUSTIFICATION: This site has been identified as having inadequate spillway capacity that would result in the dam embankment being overtopped by about 2.3 feet during the probable maximum flood (PMF). An abrupt increase in loss of life at about 44 percent of the PMF suggests that the dam is no longer capable of safely passing events greater than this value with adequate free board and that a failure resulting from a breach of the main embankment is possible. The potential for loss of life associated with the PMF required dam modification.

FISCAL YEAR 2002: The requested amount of $2,400,000 will be applied as follows:

Continue Construction	$2,050,000
Planning, Engineering and Design	150,000
Supervision and Administration	200,000
Total	$2,400,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsors must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 15 percent of the cost of the dam safety modifications assigned to project purposes in the same manner as costs were allocated for the original project (0.68 percent of total project costs).	$ 85,000	$ 0
Total non-Federal Costs	$ 85,000	$ 0

The non-Federal sponsors have agreed to make required payments concurrently with project construction.

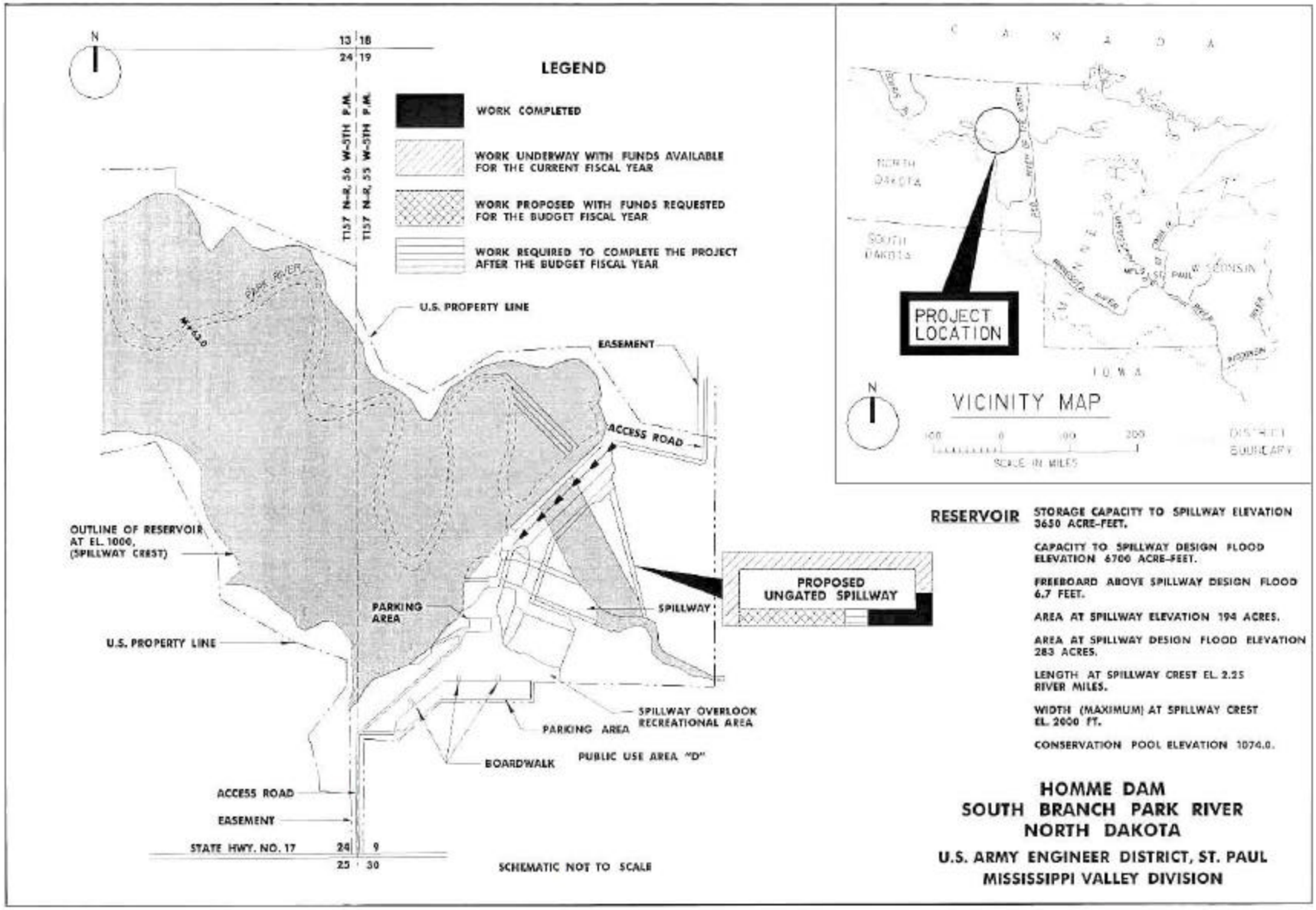
STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement was executed in April 2000. The local sponsors are Park River and Grafton, North Dakota.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $12,400,000 is a decrease of $3,500,000 from the latest estimate ($15,900,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 478,000
Post Contract Award and Other Estimating Adjustments	-3,978,000
Total	$ -3,500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The required National Environmental Protection Agency environmental documentation has been completed, and the Finding of No Significant Impact was signed on 20 February 1997.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were provided in FY 1993 under the Operations and Maintenance appropriation. The Homme Lake Dam Safety reconnaissance report was approved 25 August 1994 by the Assistant Secretary of the Army (ASA). Funds were initially appropriated under the Construction, General appropriation in FY 1995. The construction contract was awarded in May 2000.


LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
T157 N-R. 56 W-5TH P.M.
T157 N-R. 55 W-5TH P.M.
U.S. PROPERTY LINE
EASEMENT
ACCESS ROAD
OUTLINE OF RESERVOIR AT EL. 1000. (SPILLWAY CREST)
PARKING AREA
SPILLWAY
PROPOSED UNGATED SPILLWAY
U.S. PROPERTY LINE
SPILLWAY OVERLOOK RECREATIONAL AREA
PARKING AREA
BOARDWALK
PUBLIC USE AREA "D"
ACCESS ROAD
EASEMENT
STATE HWY. NO. 17
SCHEMATIC NOT TO SCALE
CANADA
NORTH DAKOTA
SOUTH DAKOTA
PROJECT LOCATION
IOWA
VICINITY MAP
SCALE IN MILES
RESERVOIR
STORAGE CAPACITY TO SPILLWAY ELEVATION 3650 ACRE-FEET.
CAPACITY TO SPILLWAY DESIGN FLOOD ELEVATION 6700 ACRE-FEET.
FREEBOARD ABOVE SPILLWAY DESIGN FLOOD 6.7 FEET.
AREA AT SPILLWAY ELEVATION 194 ACRES.
AREA AT SPILLWAY DESIGN FLOOD ELEVATION 283 ACRES.
LENGTH AT SPILLWAY CREST EL. 2.25 RIVER MILES.
WIDTH (MAXIMUM) AT SPILLWAY CREST EL. 2000 FT.
CONSERVATION POOL ELEVATION 1074.0.
HOMME DAM
SOUTH BRANCH PARK RIVER
NORTH DAKOTA
U.S. ARMY ENGINEER DISTRICT, ST. PAUL
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General – Environmental Mitigation, Restoration, and Protection

PROJECT: Upper Mississippi River System Environmental Management Program, Illinois, Iowa, Minnesota, Missouri, and Wisconsin (Continuing)

LOCATION: The Program is authorized for those river reaches having commercial navigation channels on the Upper Mississippi River, Illinois River, Minnesota River, St. Croix River, and Kaskaskia River in the states of Illinois, Iowa, Minnesota, Missouri, and Wisconsin. The following counties are included: (Illinois) Jo Daviess, Carroll, Whiteside, Rock Island, Mercer, Henderson, Hancock, Adams, Pike, Calhoun, Jersey, Madison, St. Clair, Monroe, Randolph, Jackson, Union, Alexander, Pulaski, Brown, Cass, Schuyler, Fulton, Mason, Peoria, Tazewell, Woodford, Marshall, Putnam, Bureau, LaSalle, Grundy, Will; (Iowa) Allamakee, Clayton, Dubuque, Jackson, Clinton, Scott, Muscatine, Louisa, Des Moines, Lee; (Wisconsin) St. Croix, Pierce, Pepin, Buffalo, Trempealeau, La Cross, Vernon, Crawford, Grant; (Minnesota) Anoka, Hennepin, Scott, Dakota, Ramsey, Washington, Goodhue, Wabasha, Winona, Houston; (Missouri) Clark, Lewis, Marion, Ralls, Pike, Lincoln, St. Charles, St. Louis, Jefferson, Ste. Genevieve, Perry, Cape Girardeau, Scott, Mississippi.

DESCRIPTION: The purpose of the Upper Mississippi River System Environmental Management Program (UMRS-EMP) is to ensure the coordinated development and enhancement of the Upper Mississippi River System, recognizing its several purposes. Habitat rehabilitation and enhancement projects are designed to counteract the effects of backwater sedimentation. Long-Term Resource Monitoring provides scientific information for more informed management of the UMRS. Ninety-seven percent of authorized UMRS-EMP appropriations have been used to design and construct habitat rehabilitation and enhancement projects and for Long-Term Resource Monitoring. Recreation development is an authorized program element. All work is programmed.

AUTHORIZATION: FY 1985 Supplemental Appropriations Act, P.L. 99-88; Water Resources Development Act of 1986, PL 99-662, Section 1103; Water Resources Development Act of 1990, P.L. 101-640, Section 405; and the Water Resources Development Act of 1992, P.L. 102-580, Section 107, and the Water Resources Development Act of 1999, P.L. 106-53, Section 509..

REMAINING BENEFIT-REMAINING COST: The remaining benefit-remaining cost ratio for the entire project is not applicable because monetary benefits are not quantified.

TOTAL BENEFIT-COST RATIO: The total benefit-cost ratio for the entire project is not applicable because monetary benefits are not quantified. Projects within the UMRS-EMP Program are selected for design and construction based on continued assessment of habitat restoration and enhancement opportunities as determined by the involved Federal and non-Federal partners.

INITIAL BENEFIT-COST RATIO: The initial benefit-cost ratio for the entire project is not applicable because monetary benefits are not quantified.

BASIS OF BENEFIT-COST RATIO: The basis for the benefit-cost ratio for the entire project is not applicable because monetary benefits are not quantified.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
		$ 766,195,000	
Estimated Federal Cost		5,692,000	
Estimated Non-Federal Cost			
Cash Contribution	$5,692,000		
Other Costs	0		
Total Estimated Project Cost		$ 771,887,000	
Allocations to 30 September 2000		199,330,000	
Conference Allowance for FY 2001		21,000,000	
Allocation for FY 2001		17,899,000 [1]	
Allocations through FY 2001		217,229,000	28
Allocation for FY 2002		21,000,000	31
Programmed Balance to Complete After FY 2002		527,966,000	
Unprogrammed Balance to Complete After Fy 2002		$ 0	

[1] Reflects $3,360,000 reduction assigned as savings and slippage, $300,000 reprogrammed to the project and $41,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

STATUS: (1 January 2001)		PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE [1/]
Long Term Resource Monitoring		30	Being determined
Economic Impacts of Recreation Study		100	(SEP 92)
Traffic Monitoring		100	(SEP 90)
Habitat Rehabilitation and Enhancement Projects (Construction)			
Angle Blackburn, MO	ST. LOUIS DISTRICT	0	Being determined
Batchtown Mgt. Area, IL	ST. LOUIS DISTRICT	34	Being determined
Calhoun Point, IL	ST. LOUIS DISTRICT	14	Being determined
Clarksville Refuge, MO	ST. LOUIS DISTRICT	100	(APR 90)
Cuivre Island, MO	ST. LOUIS DISTRICT	100	(JUL 99)
Dresser Island, MO	ST. LOUIS DISTRICT	100	(SEP 91)
Jefferson Barracks Side Channel	ST. LOUIS DISTRICT	0	Being determined
Least Tern, MO	ST. LOUIS DISTRICT	22	Being determined
Norton Woods, MO	ST. LOUIS DISTRICT	0	Being determined
Pharrs Island, Phase I, MO	ST. LOUIS DISTRICT	100	(JUN 92)
Pools 25 and 26, MO	ST. LOUIS DISTRICT	10	Being determined
Stag & Keaton Is., MO	ST. LOUIS DISTRICT	100	(SEP 98)
Stump Lake, IL	ST. LOUIS DISTRICT	100	(NOV 98)
Schenimann, MO	ST. LOUIS DISTRICT	2	Being determined
Stone Dike Alteration, IL/MO	ST. LOUIS DISTRICT	3	Being determined
Swan Lake, IL	ST. LOUIS DISTRICT	100	Being determined
Andalusia Refuge, IL	ROCK ISLAND DISTRICT	100	(DEC 94)
Banner Marsh, IL	ROCK ISLAND DISTRICT	55	Being determined
Bay Island, MO	ROCK ISLAND DISTRICT	100	(NOV 94)
Bertom Lake, WI	ROCK ISLAND DISTRICT	100	(JUN 92)
Big Timber, IA	ROCK ISLAND DISTRICT	100	(JUN 95)
Brown's Lake, IA	ROCK ISLAND DISTRICT	100	(SEP 94)
Chautauqua Refuge, IL	ROCK ISLAND DISTRICT	100	(DEC 99)
Cottonwood Island, MO	ROCK ISLAND DISTRICT	100	(DEC 99)
Gardner Div., IL	ROCK ISLAND DISTRICT	17	Being determined
Huron Island, IA	ROCK ISLAND DISTRICT	0	Being determined
Lake Odessa, IA	ROCK ISLAND DISTRICT	21	Being determined
Pool 11 Islands, WI/IA	ROCK ISLAND DISTRICT	9	Being determined

STATUS: (1 January 2001) (Continued)

		PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE [1/]
Pleasant Creek, IA	ROCK ISLAND DISTRICT	43	Being determined
Monkey Chute, MO	ROCK ISLAND DISTRICT	100	(AUG 89)
Peoria Lake, IL	ROCK ISLAND DISTRICT	100	(SEP 97)
Peosta Channel, IA	ROCK ISLAND DISTRICT	0	Being determined
Pool 12 Overwintering IA/IL	ROCK ISLAND DISTRICT	1	Being determined
Potters Marsh, IL	ROCK ISLAND DISTRICT	100	(JUN 96)
Princeton, IA	ROCK ISLAND DISTRICT	98	(SEP 00)
Rice Lake, IL	ROCK ISLAND DISTRICT	9	Being determined
Smith's Creek, IA	ROCK ISLAND DISTRICT	45	Being determined
Spring Lake, IL	ROCK ISLAND DISTRICT	99	(SEP 99)
Ambrough Slough, WI	ST. PAUL DISTRICT	13	Being determined
Blackbird Slough, MN	ST. PAUL DISTRICT	0	DEFERRED
Blackhawk Park, WI	ST. PAUL DISTRICT	100	(NOV 90)
Bussey Lake, IA	ST. PAUL DISTRICT	100	(JUN 96)
Capoli Slough, WI	ST. PAUL DISTRICT	5	Being determined
Cold Springs, WI	ST. PAUL DISTRICT	100	(JUN 94)
Conway Lake, IA	ST. PAUL DISTRICT	1	Being determined
East Channel, WI, MN	ST. PAUL DISTRICT	100	(JUN 97)
Finger Lakes, MN	ST. PAUL DISTRICT	100	(JUL 94)
Guttenberg Fish Ponds, IA	ST. PAUL DISTRICT	100	(NOV 89)
Harpers Slough, WI	ST. PAUL DISTRICT	10	Being determined
Indian Slough, WI	ST. PAUL DISTRICT	100	(JUN 93)
Island 42, MN	ST. PAUL DISTRICT	100	(MAY 87)
Lake Onalaska, WI	ST. PAUL DISTRICT	100	(OCT 89)
Lansing Big Lake, IA	ST. PAUL DISTRICT	100	(NOV 94)
Long Lake, WI	ST. PAUL DISTRICT	90	Being determined
Long Meadow Lake, MN	ST. PAUL DISTRICT	7	Being determined

STATUS: (1 January 2001) (Continued)

		PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE 1/
Miss. Rvr Bank			
Stabilization, MN/WI	ST. PAUL DISTRICT	100	(SEP 99)
Peterson Lake, MN	ST. PAUL DISTRICT	100	(JUN 96)
Polander Lake, MN	ST. PAUL DISTRICT	93	Being determined
Pool 8 Isl, Phase I, WI	ST. PAUL DISTRICT	100	(JUN 93)
Pool 8 Isl, Phase II, WI	ST. PAUL DISTRICT	100	(SEP 99)
Pool 9 Isl Protection, WI	ST. PAUL DISTRICT	100	(JUN 95)
Pool 8 Isl, Phase III, WI	ST. PAUL DISTRICT	4	Being determined
Pool Slough, IA/MN	ST. PAUL DISTRICT	55	Being determined
Rice Lake, MN	ST. PAUL DISTRICT	100	(NOV 98)
Small Scale Drawdown, WI	ST. PAUL DISTRICT	100	(SEP 97)
Spring Lake, WI	ST. PAUL DISTRICT	100	(NOV 94)
Spring Lake Isl, WI	ST. PAUL DISTRICT	5	Being determined
Trempealeau NWR, WI	ST. PAUL DISTRICT	100	(SEP 99)
Whitewater River, MN	ST. PAUL DISTRICT	2	DEFERRED
Lake Winneshiek, WI	ST. PAUL DISTRICT	0	Being determined
Recreation		0	UNSCHEDULED
Entire Project, Except Recreation		20	Being determined

1/ Parenthesis indicate actual date.

JUSTIFICATION: Implementation of the Upper Mississippi River System Environmental Management Program is essential to the continued viability of the Upper Mississippi River System and important to the long-term public acceptance and support of Upper Mississippi River System (UMRS) navigation. Habitat Rehabilitation and Enhancement projects help counteract the negative effects of natural and human-induced factors on the system's backwaters and side channels. Projects are selected for design and construction based on continued assessment of habitat restoration and enhancement opportunities as determined by the involved Federal and non-Federal partners. Long-Term Resource Monitoring provides data to indicate trends in key environmental parameters, analyzing sedimentation and other UMRS resource problems, and producing a spatial information database. An Economic Impacts of Recreation Study has been conducted to enable Federal and non-Federal management decisions to better consider impacts on recreation and the consequent changes in recreation-related expenditures in the local and regional economies.

FISCAL YEAR 2002: The requested amount of $21,000,000 will be applied as follows:

PROJECT	DISTRICT	STATUS	
Calhoun Point, IL	ST. LOUIS DISTRICT	$ 800,000	Continue Construction
Batchtown Mgmt Area, IL	ST. LOUIS DISTRICT	2,168,000	Continue Construction
Jefferson Barracks Side Channel	ST. LOUIS DISTRICT	100,000	Continue Design
Gardner Division, IL	ROCK ISLAND DISTRICT	350,000	Continue Construction
Lake Odessa, IA	ROCK ISLAND DISTRICT	800,000	Initiate Construction
Pool 11 Islands, WI	ROCK ISLAND DISTRICT	2,575,000	Initiate Construction
Pool 12 Overwintering	ROCK ISLAND DISTRICT	150,000	Continue Design
Smith Creek,	ROCK ISLAND DISTRICT	100,000	Initiate Construction
Rice Lake, IA	ROCK ISLAND DISTRICT	800,000	Initiate Construction
Pleasant Creek, IA	ROCK ISLAND DISTRICT	300,000	Complete Construction
Conway Lake, IA	ST. PAUL DISTRICT	180,000	Continue Design
Pool 8 Phase III, WI	ST. PAUL DISTRICT	450,000	Continue Design
Lake Winneshiek, WI	ST. PAUL DISTRICT	100,000	Continue Design
Ambrough Slough, WI	ST. PAUL DISTRICT	1,200,000	Initiate Construction
Capoli Slough, WI	ST. PAUL DISTRICT	200,000	Complete Design
Harpers Slough, WI	ST. PAUL DISTRICT	1,000,000	Initiate Construction
Pool Slough, IA	ST. PAUL DISTRICT	400,000	Complete Construction
Spring Lake Islands, WI	ST. PAUL DISTRICT	800,000	Complete design/Initiate Construction
Long Meadow Lake, MN	ST. PAUL DISTRICT	161,000	Complete design/Initiate Construction
Habitat Evaluation/Monitoring		520,000	Continue
Other Habitat		423,000	Continue
Long Term Resource Monitoring		6,559,000	Continue
Program Management		864,000	Continue
TOTAL		$21,000,000	

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 and amended by Section 107(b) of the Water Resources Development Act of 1992, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Pay 25 percent of the first costs allocated to fish and wildlife enhancement for the following projects:		
Banner Marsh, IL	$ 1,228,000	$
Blackhawk Park, WI	77,000	
Bussey Lake, IA	162,000	
Cuivre Island, MO	433,000	
Peoria Lake, IL	1,082,000	
Pool Slough, IA, MN	115,000	
Princeton, IA	26,000	
Rice Lake, IL	1,997,000	
Schenimann Chute, Mo	310,000	
Swan Lake, IL	262,000	
Subtotal	$ 5,692,000	$ 0
Pay 50 percent of the first costs allocated to recreation projects.	0 1/	
Total Non-Federal Construction Costs	$ 5,692,000	$ 0

The non-Federal sponsors have agreed to make all required payments concurrently with project construction.

_____

1/ No recreation projects scheduled.

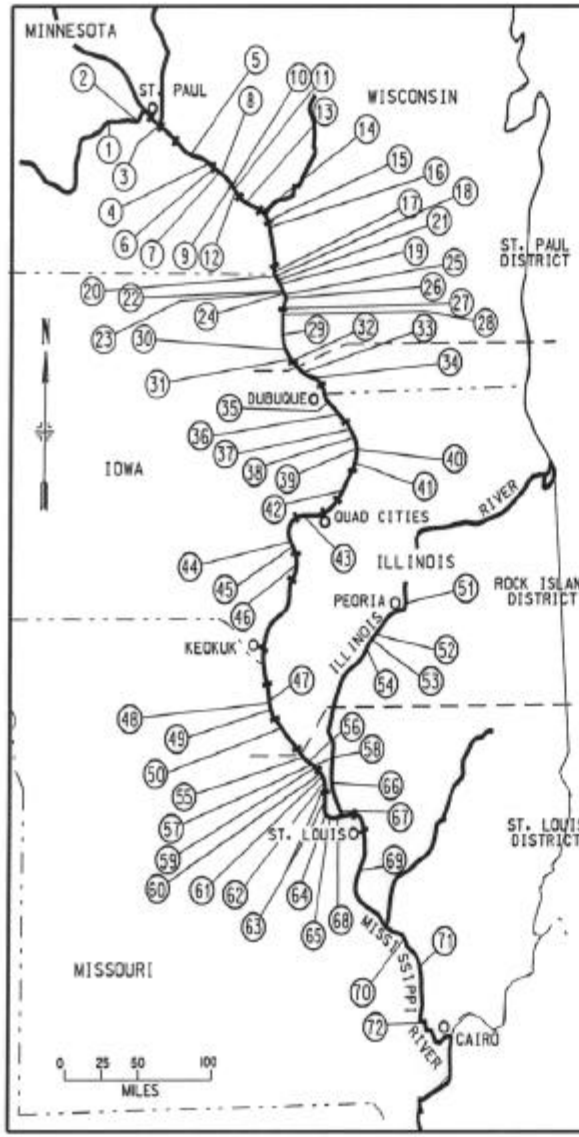
STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement is required only for Program projects that are not located on lands managed as a national wildlife refuge.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $766,195,000 is an increase of $233,455,000 from the latest estimate ($532,740,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Sundry - reflects the incorporation of additional habitat projects in the estimate and more detailed planning of construction.	$233,455,000
Total	$233,455,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: National Environmental Policy Act compliance is accomplished prior to implementation of each individual project within the Program.

OTHER INFORMATION: Funds to initiate construction were first appropriated in FY 1985. The Water Resources Development Act of 1999, P.L. 106-53, amends the previous authority to increase annual appropriation limits available to the program; require submission of a report to Congress on a 6 year cycle beginning in December 2004 that evaluates programs, accomplishments, systemic habitat needs, and identifies any needed changes to the program authorization; and authorizes an independent technical advisory committee. Plans for implementation of the Advisory Committee are currently being developed for FY 2002.



SITE NO.	PROJECT	DISTRICT AGENCY	STATUS (AS OF JAN 01)
NA	GENERAL PLAN	MVD	UNDERWAY
NA	LONG TERM RESOURCES MONITORING	USGS	UNDERWAY
NA	ECONOMIC IMPACTS OF RECREATION	MVD	COMPLETE
NA	TRAFFIC MONITORING	MVR	COMPLETE
NA	REPORT TO CONGRESS	MVR	COMPLETE

HABITAT REHABILITATION & ENHANCEMENT PROJECTS

SITE NO.	PROJECT	STATUS
1.	RICE LAKE. MN	COMPLETE
2.	LONG MEADOW LAKE. MN	UNDERWAY
3.	GOOSE LAKE. MN	DEFERRED
4.	PETERSON LAKE. MN	COMPLETE
5.	INDIAN SLOUGH BACKWATER. WI	COMPLETE
6.	FINGER LAKES. MN	COMPLETE
7.	ISLAND 42. MN	COMPLETE
8.	SMALL SCALE DRAWDOWN. WI	COMPLETE
9.	WHITEWATER RIVER. MN	DEFERRED
10.	SPRING LAKE PENINSULA. WI	COMPLETE
11.	SPRING LAKE ISLANDS. WI	UNDERWAY
12.	POLANDER LAKE. MN	COMPLETE
13.	TREMPEALEAU REFUGE. WI	COMPLETE
14.	LONG LAKE. WI	COMPLETE
15.	LAKE ONALASKA. WI	COMPLETE
16.	EAST CHANNEL. WI/MN	COMPLETE
17.	POOL 8 ISLANDS. PHASE I. WI	COMPLETE
18.	POOL 8 ISLANDS. PHASE II. WI	COMPLETE
19.	POOL 8 ISLANDS. PHASE III. WI	UNDERWAY
20.	POOL SLOUGH. IA/MN	UNDERWAY
21.	BLACKHAWK PARK. WI	COMPLETE
22.	LANSING BIG LAKE. IA	COMPLETE
23.	CONWAY LAKE. IA	UNDERWAY
24.	CAPOLI SLOUGH. WI	UNDERWAY
25.	LAKE WINNESHIEK. WI	UNDERWAY
26.	POOL 9 ISLAND PROTECTION. WI	COMPLETE
27.	COLD SPRINGS. WI	COMPLETE
28.	HARPERS SLOUGH. IA/WI	UNDERWAY
29.	AMERBOUGH SLOUGH. WI	UNDERWAY
30.	BUSSEY LAKE. IA	COMPLETE
31.	GUTTENBERG PONDS. IA	COMPLETE
32.	MISS RIVER BANK STABILIZATION	COMPLETE
33.	BERTOM-McCARTNEY LAKES. WI	COMPLETE
34.	POOL 11 ISLANDS. WI	UNDERWAY
35.	PEOSTA. IA	DEFERRED
36.	POOL 12 OVERWINTERING. IA/IL	UNDERWAY
37.	PLEASANT CREEK. IA	UNDERWAY
38.	SMITH CREEK. IA	UNDERWAY
39.	BROWN'S LAKE. IA	COMPLETE
40.	SPRING LAKE. IL	COMPLETE
41.	POTTERS MARSH. IL	COMPLETE
42.	PRINCETON REFUGE. IA	COMPLETE
43.	ANDALUSIA REFUGE. IL	COMPLETE
44.	BIG TIMBER. IA	COMPLETE
45.	LAKE ODESSA. IA	UNDERWAY
46.	HURON ISLAND. IA	DEFERRED
47.	GARDNER DIVISION. IL	UNDERWAY
48.	COTTONWOOD ISLAND. MO	COMPLETE
49.	MONKEY CHUTE. MO	COMPLETE
50.	BAY ISLAND. MO	COMPLETE
51.	PEORIA LAKE. IL	COMPLETE
52.	BANNER MARSH. IL	UNDERWAY
53.	RICE LAKE. IL	UNDERWAY
54.	CHAUTAUQUA REFUGE. IL	COMPLETE
55.	CLARKSVILLE REFUGE. MO	COMPLETE
56.	ALTON POOL. IL	TERMINATED
57.	PHARRS ISLAND. MO	COMPLETE
58.	ANGLE BLACKBURN. MO	SCHEDULED AFTER FY 02
59.	NORTON WOODS. MO	DEFERRED
60.	STAG & KEETON ISLANDS. MO	COMPLETE
61.	SANDY CHUTE. IL	SCHEDULED AFTER FY 02
62.	BATCHTOWN MGMT. AREA. IL	UNDERWAY
63.	POOLS 25 & 26. MO	UNDERWAY
64.	CUIVRE ISLAND. MO	UNDERWAY
65.	DRESSER ISLAND. IL	COMPLETE
66.	STUMP LAKE. IL	COMPLETE
67.	SWAN LAKE. IL	UNDERWAY
68.	CALHOUN POINT. IL	UNDERWAY
69.	OSBORNE SIDE CHANNELS. IL	TERMINATED
70.	LEAST TERN. MO	DEFERRED
71.	DIKE ALTERATIONS. MO & IL	DEFERRED
72.	SCHEUIMANOR CHUTE. MO	UNDERWAY

UPPER MISSISSIPPI RIVER SYSTEM
ENVIRONMENTAL MANAGEMANT PROGRAM
U.S. ARMY ENGINEER DISTRICT, ROCK ISLAND
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General – Major Rehabilitation – Locks and Dams (Navigation)

PROJECT: Lock and Dam 24, Mississippi River, Illinois and Missouri (Major Rehabilitation) (Continuing)

LOCATION: Lock and Dam 24, is located in Calhoun County, Illinois, and Pike County, Missouri, at approximately Mile 273.5 above the mouth of the Ohio River in the vicinity of Clarksville, Missouri.

DESCRIPTION: The project plan provides for the rehabilitation of portions of the structure. The work will include replacement of miter gates, auxiliary lock closure structure, power distribution system, lock motors and controllers, control system, and miter gate machinery; addition of a protection cell, bendway weirs, and debris openings in the dam guard wall; repairs to several dam bridge columns; and rehabilitation of the lock landwall, intermediate wall, upstream and downstream guidewalls, dam tainter gates and anchorages, and the Illinois abutment. All work is programmed.

AUTHORIZATION: River and Harbor Act of 1935, Water Resources Development Acts of 1986 and 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 1.2 to 1 at 8 percent (Rehabilitation Report, Part 1, June 1993); and 7 1/8 percent (Rehabilitation Report, Part 2, September 1997).

TOTAL BENEFIT-COST RATIO: 2.3 to 1 at 8 percent (Rehabilitation Report, Part 1, June 1993); 1.4 to 1 at 7 1/8 percent (Rehabilitation Report, Part 2, September 1997).

INITIAL BENEFIT-COST RATIO: 2.3 to 1 at 8 percent (FY 1996, Rehabilitation Report, Part 1, June 1993); 1.4 to 1 at 7 1/8 percent (FY 2000, Rehabilitation Report, Part 2, September 1997).

BASIS OF BENEFIT-COST RATIO: Based on two Major Rehabilitation Reports, Lock and Dam No. 24, Mississippi River, approved in June 1993 (Part 1, October 1992 price levels) and September 1997 (Part 2, October 1996 price levels). Benefit-cost ratio is a composite of all items analyzed for major rehabilitation.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$68,592,000		Entire Project	29	Being determined
General Appropriation	$34,296,000					
Inland Waterways Trust Fund	34,296,000					
Estimated Non-Federal Cost		0				
Total Estimated Project Cost		$68,592,000				

SUMMARIZED FINANCIAL DATA (Continued)	GENERAL APPNS	INLAND WATERWAYS TRUST FUND	ACCUM PCT OF EST FED COST
Allocations to 30 September 2000	$9,943,000	$9,943,000	
Conference Allowance for FY 2001	2,875,000	2,875,000	
Allocation for FY 2001	2,409,000 [1]	2,409,000 [1]	
Allocations through FY 2001	12,352,000	12,352,000	36
Allocation Requested for FY 2002	4,019,000	4,019,000	48
Programmed Balance to Complete After FY 2002	17,925,000	17,925,000	
Unprogrammed Balance to Complete After FY 2002	0	0	

PHYSICAL DATA

Lock: Major rehabilitation of the existing lock will include replacement of miter gates, power distribution system, motors, controllers, and machinery; construction of a protection cell, bendway weirs, and debris openings in the guard wall; and rehabilitation of existing lock landwall, intermediate wall, and downstream guidewalls.

Dam: Major rehabilitation of the existing dam lock will include replacement of power distribution and control systems and auxiliary lock closure structure and rehabilitation of bridge columns and Illinois abutment.

JUSTIFICATION: Lock and Dam 24 has been operating for over 50 years. While ordinary maintenance has been performed to keep the facility operating, the wear and tear on some items is beyond ordinary maintenance. To provide an acceptable level of reliability, major rehabilitation of various structural, electrical, and mechanical components of the facility must be undertaken. The average annual benefits, all navigation, are $4,735,000 (Rehabilitation Report, Part 1, June 1993) and $5,384,000 (Rehabilitation Report, Part 2, September 1997).

[1] Reflects $920,000 reduction assigned as savings and slippage and $12,000 rescinded from the project in accordance with the Consolidated Appropriations Act, 2001. (50/50 Construction, General, and Inland Waterways Trust Fund.)

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue: Lock Concrete Rehabilitation	$7,438,000
Planning, Engineering and Design	300,000
Supervision and Administration	300,000
Total	$8,038,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total cost of construction will be derived from the Inland Waterways Trust Fund.

STATUS OF LOCAL COOPERATION: None required.

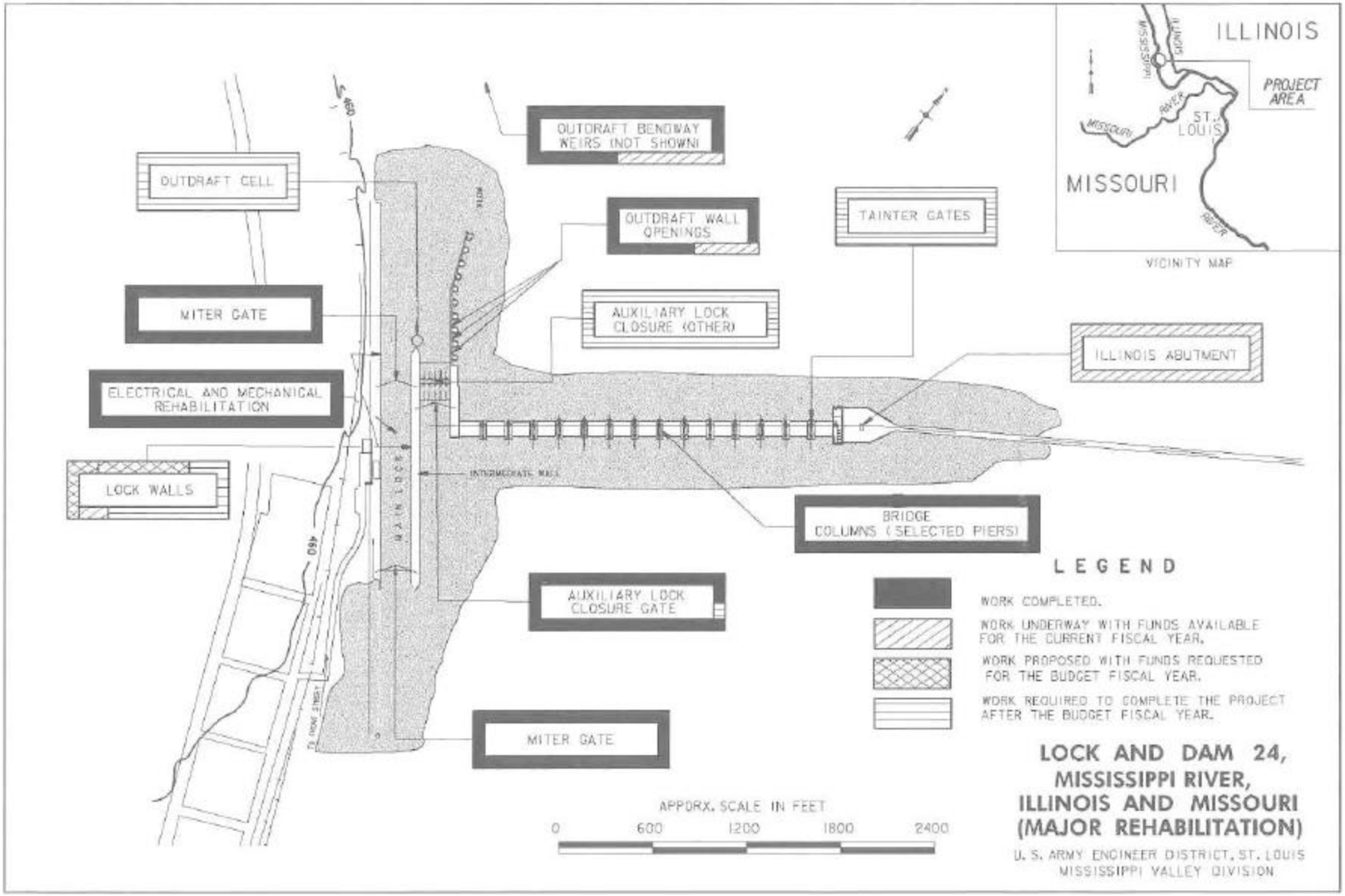
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $68,592,000 is a decrease of $1,402,000 from the latest estimate ($69,994,000) submitted to Congress (FY 2001). This change includes the following item:

Item	Amount
Price Escalation on Construction Features	$ -1,402,000
Total	$ -1,402,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Two environmental assessments were conducted. Each one resulted in a Finding of No Significant Impact; the first one was signed 1 February 1993 and the second, 5 March 1997. The rehabilitation reports were coordinated with the U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, and the Missouri and Illinois Departments of Conservation. The U.S. Fish and Wildlife Service concurred with the biological assessments contained in the environmental assessments.

OTHER INFORMATION: Funds to initiate construction were appropriated in Fiscal Year 1996.

The project requires no mitigation.


OUTDRAFT BENDWAY WEIRS (NOT SHOWN)
OUTDRAFT CELL
OUTDRAFT WALL OPENINGS
TAINTER GATES
MITER GATE
AUXILIARY LOCK CLOSURE (OTHER)
ILLINOIS ABUTMENT
ELECTRICAL AND MECHANICAL REHABILITATION
LOCK WALLS
INTERMEDIATE WALL
BRIDGE COLUMNS (SELECTED PIERS)
AUXILIARY LOCK CLOSURE GATE
MITER GATE
460
ILLINOIS
PROJECT AREA
ST. LOUIS
MISSOURI
VICINITY MAP
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
APPORX. SCALE IN FEET
0 600 1200 1800 2400
LOCK AND DAM 24, MISSISSIPPI RIVER, ILLINOIS AND MISSOURI (MAJOR REHABILITATION)
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General - Major Rehabilitation - Locks and Dams (Navigation)

PROJECT: Lock and Dam 12, Mississippi River, Iowa (Major Rehabilitation) (Continuing)

LOCATION: The project is located at Mississippi River Mile 556.7, near the City of Bellevue, in Jackson County, Iowa. The facility is a unit of the Inland Waterway Navigation System of the Upper Mississippi River Basin and is one of twenty-nine such facilities between Minneapolis, Minnesota, and St. Louis, Missouri.

DESCRIPTION: The lock chamber is 600 feet long by 110 feet wide and has a maximum lift of 9 feet. An auxiliary lock is located adjacent to the Iowa side of the channel. The dam is 8,369-feet long and consists of a 849-foot gated section. The remaining 7,520 is an earth and rock dike section. Significant features of the work include miter gate electrical systems replacement, miter gate and tainter valve machinery replacement, miter gate anchorage bar replacement, culvert valve rehabilitation, dam tainter gate chain replacement, and additional scour projection above and below the dam. All work is programmed.

AUTHORIZATION: River and Harbor Act of 1930, Water Resources Development Acts of 1986 and 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 8.5 to 1 at 7-1/8 percent.

INITIAL BENEFIT-COST RATIO: 4.5 to 1 at 7-1/8 percent. (FY 2000)

TOTAL BENEFIT-COST RATIO: 4.4 to 1 at 7-1/8 percent.

BASIS OF BENEFIT-COST RATIO: The Mississippi River, Bellevue, Iowa, Lock and Dam No. 12 Rehabilitation Evaluation Report, dated March 1998 (March 1998 price levels) and approved by HQUSACE on 30 June 1998.

SUMMARIZED FINANCIAL DATA		STATUS: (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$ 15,000,000 [1]	Entire Project	19	Being determined
General Appropriations	7,500,000			
Inland Waterways Trust Fund	7,500,000			
Estimated Non-Federal Cost	0			
Total Estimated Project Cost	$ 15,000,000			

	GENERAL APPROPRIATIONS	INLAND WATERWAYS TRUST FUND	ACCUM PCT OF EST FED COST
Allocations to 30 September 2000	$1,150,000	$1,150,000	
Conference Allowance for FY 2001	2,630,000	2,630,000	
Allocation for FY 2001	1,582,000 [2]	1,582,000 [2]	
Allocations through FY 2001	2,732,000	2,732,000	36
Allocation Requested for FY 2002	2,453,000	2,453,000	69
Programmed Balance to Complete after FY 2002	2,315,000	2,315,000	
Unprogrammed Balance to Compete after FY 2002	0	0	

PHYSICAL DATA

Scour Protection – place rock downstream of dam (125 ft) and upstream (65 feet).
Lock Rehabilitation – 600 feet long x 110 feet wide.
Dam Rehabilitation – 849 feet gated section and 7,520 feet rock and earthen section.

JUSTIFICATION: The Upper Mississippi River is a vital segment of the United States Inland Waterway Navigation System, serving as an economical transportation link from the Upper Midwest to the lower Mississippi River and the Gulf of Mexico. The Upper Mississippi River is essential to several of the most

[1] Based on Rehabilitation Evaluation Report dated March 1998 in the amount of $13,562,000 (Major Rehabilitation only). The estimate was updated to October 1998 price levels and an estimated inflation allowance through the construction period was applied.
[2] Reflects $842,000 reduction assigned as savings and slippage, $1,244,000 reprogrammed from the project and $10,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

important economic sectors in the nation; namely agriculture, construction, and energy. The continued operation and maintenance of the locks and dams on the Upper Mississippi River in a safe and reliable mode is of sound economic importance.

Lock and Dam No. 12 was placed into operation in 1939, and has performed very well in the intervening 59 years of service. However, reliability and operational problems are occurring that have significant impacts to the navigation users of the Upper Mississippi River. These impacts, in the form of service disruptions leading to stalls and delays in traffic, result in increased transportation costs for grain, coal, petroleum products, and other bulk commodities. As stewards of inland navigation, the U.S. Army Corps of Engineers is addressing these reliability problems to ensure the lock and dam system continues satisfactory operations for current levels of traffic on the Upper Mississippi River.

The existing lock mechanical and electrical systems are original equipment installed in the 1930's. Most of the electrical components are not in compliance with the National Electric Code, and operation of the equipment is becoming a safety concern. Operation and maintenance costs will be increasing with a continued decrease in the reliability.

The lock mechanical systems are the most critical components in keeping the lock operational. Loss of function of these systems could reduce the efficiency of the lock by 60 percent. Spare parts for these machinery systems are also becoming increasingly difficult to obtain. The miter gate anchorages are original components that have experienced fatigue failures at other lock sites. Failure of these anchorages could shut down the lock for an extended period. The culvert valves control entry and exit of water for the lock. Failure of this component could reduce the efficiency or in some cases shut down the lock for an extended period. The dam tainter gate chains have experienced corrosion that has caused them to become stiff and difficult to pass over the chain sprockets. These chains have failed at other dam sites resulting in uncontrolled flow through the gate opening. Changes in design and operating criteria require the placement of additional scour protection above and below the dam. The additional protection will provide more reliable service for various water control scenarios.

Additional rehabilitation work will be accomplished utilizing the Operation and Maintenance, General, Major Maintenance Program. These components could not be justified, based on current criteria, under the Construction, General-Major Rehabilitation Program. These items include the miter gates, auxiliary miter gates, electrical distribution system, lock concrete, dam roller and tainter gates, dam roller chains, dam concrete, dam service bridge, and lock bubbler systems. Lock tonnage figures for the last ten years are as follows:

Year	Tonnage	Year	Tonnage	Year	Tonnage	Year	Tonnage
1999	24,426,919	1996	22,141,000	1993	14,340,000	1990	24,703,000
1998	21,596,000	1995	21,213,000	1992	24,301,000	1989	21,087,000
1997	20,226,000	1994	17,120,000	1991	22,050,000		

The average annual benefits, all navigation, are $6,499,500.

FISCAL YEAR 2002: The requested amount of $4,906,000 will be applied as follows:

Continue Stage II, Lock Rehabilitation	$ 2,750,000
Stage III, Dam Rehabilitation	1,300,000
Planning, Engineering, and Design	476,000
Supervision and Administration	380,000
Total	$ 4,906,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total cost of construction will be derived from the Inland Waterways Trust Fund.

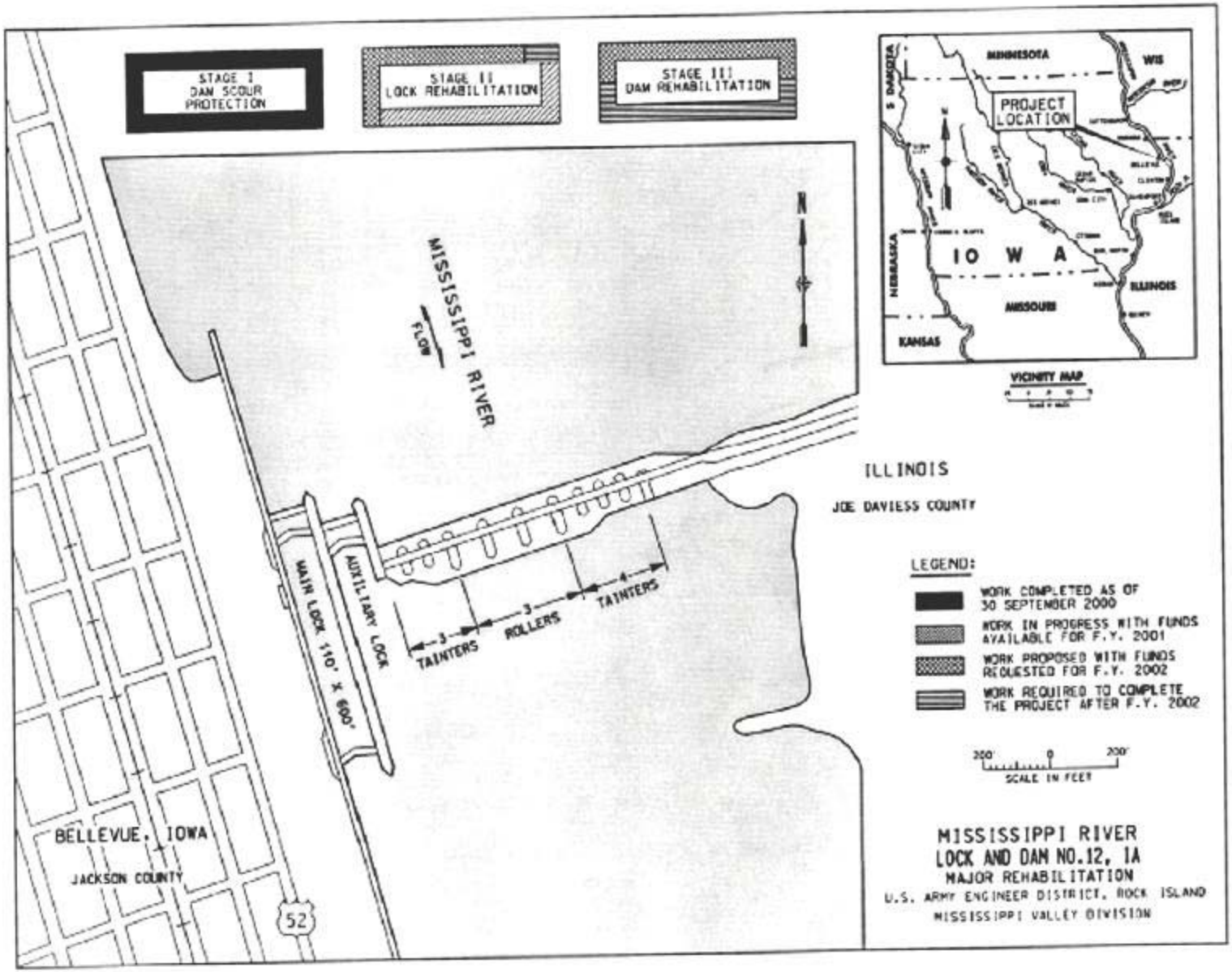
STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $15,000,000 is a decrease of $500,000 from the last estimate presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 389,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	- 889,000
Total	$-500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment was distributed for public review in April 1997. A Finding of No Significant Impact was signed in August 1997.

OTHER INFORMATION: Operations and Maintenance, General, funds were allocated to initiate and complete the Rehabilitation Evaluation Report. Funds to initiate construction were appropriated in FY 2000. The first contract, Stage I, Scour Protection, was awarded in November 1999. The second contract, Stage II, Lock Rehabilitation was awarded in September 2000. The last contract, Stage III, Dam Rehabilitation is scheduled to be awarded in November 2001.


STAGE I
DAM SCOUR
PROTECTION
STAGE II
LOCK REHABILITATION
STAGE III
DAM REHABILITATION
MISSISSIPPI RIVER
FLOW
N
MAIN LOCK 110' X 600'
AUXILIARY LOCK
3
TAINTERS
3
ROLLERS
4
TAINTERS
ILLINOIS
JOE DAVIESS COUNTY
BELLEVUE, IOWA
JACKSON COUNTY
52
MINNESOTA
WIS
S DAKOTA
PROJECT
LOCATION
NEBRASKA
IOWA
ILLINOIS
MISSOURI
KANSAS
VICINITY MAP
LEGEND:
WORK COMPLETED AS OF
30 SEPTEMBER 2000
WORK IN PROGRESS WITH FUNDS
AVAILABLE FOR F.Y. 2001
WORK PROPOSED WITH FUNDS
REQUESTED FOR F.Y. 2002
WORK REQUIRED TO COMPLETE
THE PROJECT AFTER F.Y. 2002
200'
0
200'
SCALE IN FEET
MISSISSIPPI RIVER
LOCK AND DAM NO.12, IA
MAJOR REHABILITATION
U.S. ARMY ENGINEER DISTRICT, ROCK ISLAND
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction, General - Major Rehabilitation - Locks and Dams (Navigation)

PROJECT: Lock and Dam No. 3, Mississippi River, Minnesota (Major Rehabilitation) (Continuing)

LOCATION: Lock and Dam 3 is located on the Mississippi River 56 miles downstream of Minneapolis, Minnesota, and 6 miles upstream of Red Wing, Minnesota, in Goodhue County.

DESCRIPTION: The embankments at Lock and Dam 3 consist of the main embankment and an extensive system of spot dikes on both the Minnesota and Wisconsin sides of the river. The main embankment is subject to overtopping and severe damage during major flood events. The system of spot dikes on the Wisconsin side, which maintains the pool, were designed for overtopping and to provide flood flow discharge capacity. These spot dikes are deteriorating at an accelerating rate because of deterioration of associated downstream private dikes. Periodic maintenance on the spot dikes has prevented failure of the system to date. Seepage paths through the structure have developed and deteriorating grouted riprap is crumbling leaving the structures subject to erosion during major flood flows. If high water erodes the dikes, loss of pool 3 could result. This would not only curtail navigation, but would cause severe environmental and economic problems and damage. Repair of the entire dike system is vital to navigation and environmental interests and a nuclear power plant that rely on maintenance of pool 3. The reevaluation study is likely to recommend a significantly different project than that described above. (See Other Information.)

AUTHORIZATION: River and Harbor Act of 1930, Water Resources Development Acts of 1986 and 1992.

REMAINING BENEFIT-REMAINING COST RATIO: Being reevaluated.

INITIAL BENEFIT-COST RATIO: Being reevaluated.

TOTAL BENEFIT-COST RATIO: Being reevaluated.

BASIS OF BENEFIT-COST RATIO: Being reevaluated.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$18,800,000	Entire Project	11	Being determined
General Appropriations	$ 9,400,000			
Inland Waterways Trust Fund	9,400,000			
Estimated Non-Federal Cost	0			
Total Estimated Project Cost	$18,800,000			

PHYSICAL DATA	
Embankments	6,900 ft

SUMMARIZED FINANCIAL DATA (Continued)	CONSTRUCTION, GENERAL APPROPRIATIONS	INLAND WATERWAYS TRUST FUND	ACCUM PCT OF EST FED COST
Allocations to 30 September 2000	$ 1,262,000	$ 1,262,000	
Conference Allowance for FY 2001	2,500,000	2,500,000	
Allocation for FY 2001	295,000 [1]	295,000 [1]	
Allocations through FY 2001	1,557,000	1,557,000	17
Allocation Requested for FY 2002	400,000	400,000	21
Programmed Balance to Complete after FY 2002	7,443,000	7,443,000	
Unprogrammed Balance to Complete after FY 2002	0	0	

JUSTIFICATION: The standard project flood is used as the design discharge for major rehabilitation projects because failure of these dams would result in severe economic loss for the Upper Midwest. Under the standard project flood conditions the peak discharge is 305,000 cfs. Dam 3 is capable of discharging a maximum of 93,000 cfs, leaving the peak discharge of 212,000 cfs or 78,000 over the design parameters used to design the lock and dam 3 structure. This condition creates the potential for overtopping of the dike system by 5.3 feet. Because the dikes were not designed for this degree of exposure, modifications are required to protect the dike and prevent the probable failure of the embankment system if left unprotected. Annual navigation benefits total $1,902,000. This project addresses the spot dike problems on the Wisconsin side of the river only.

FISCAL YEAR 2002: The requested total amount of $800,000 will be applied as follows:

Planning, Engineering and Design	$ 800,000
Total	$ 800,000

NON-FEDERAL COST: Not applicable.

STATUS OF LOCAL COOPERATION: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the cost of construction will be derived from the Inland Waterways Trust Fund.

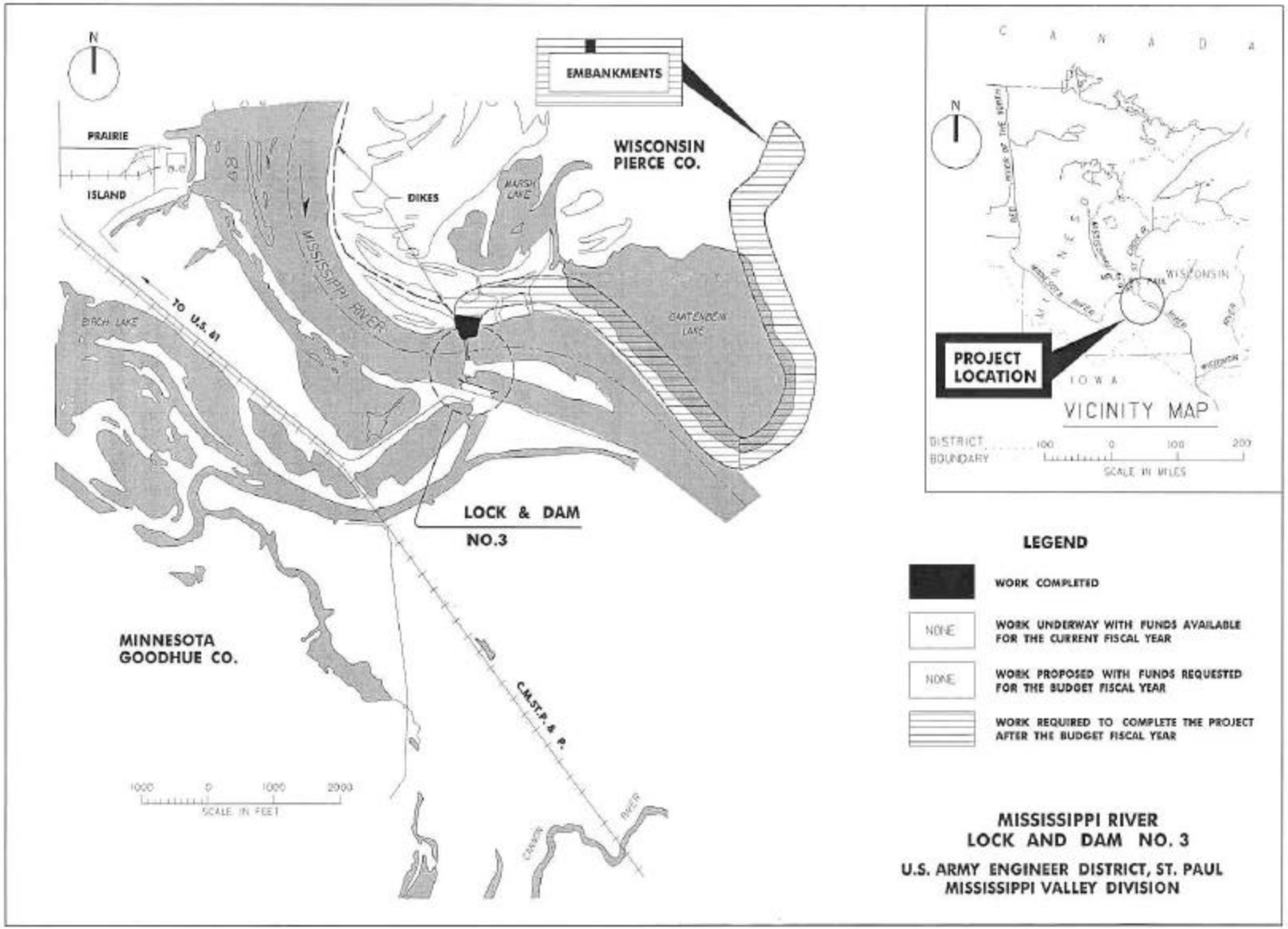
[1] Reflects $800,000 reduction assigned as savings and slippage; $3,600,000 reprogrammed from the project; and $10,000 rescinded in accordance with the Consolidated Appropriations Act, 2001. (50 percent Construction, General, and 50 percent Inland Waterways Trust Fund.)

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $18,800,000 is an increase of $2,600,000 over the latest estimate ($16,200,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 600,000
Design Changes	$2,000,000
Total	$2,600,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Notice of Intent to prepare an Environmental Impact Statement (EIS) was published in the Federal Register in August 2000. An interagency study team has been formed and is actively participating in alternatives analysis and plan formulation. The scooping process is nearly complete. Depending on the outcome of the planning process and the proposed action that emerges from the reevaluation study, an Environmental Assessment and Finding of No Significant Impact may be prepared in lieu of an EIS.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1993 under the Operations and Maintenance, General, Appropriation. Construction was initiated in Fiscal Year 1998. A small construction contract was completed for the embankments project in 1999. The remainder of the project was stopped when endangered mussel species were found. A separate project was formulated for navigation safety to correct for an outdraft current that tends to sweep down bound tows toward the gated dam. The recommended plan for the navigation safety project was a 1,230 foot long ported guard wall in the river upstream and between the lock and gated dam. Participating agencies and the towing industry believe the outdraft issue needs to be resolved to reduce barge accidents and the potential for a toxic spill. The agencies have also requested that the two projects be combined. Because solving the outdraft may reduce the risk of embankment failure, combining the projects may lead to a less conservative embankment plan which could reduce environmental impacts and lower the cost of the embankments portion of the project. The project is being reevaluated to include the navigation safety component in addition to the embankments component. A reevaluation study is scheduled for completion in December 2001.


N
EMBANKMENTS
WISCONSIN
PIERCE CO.
PRAIRIE
ISLAND
DIKES
MARSH LAKE
MISSISSIPPI RIVER
TO U.S. 61
BIRCH LAKE
CONTENSON LAKE
LOCK & DAM
NO.3
MINNESOTA
GOODHUE CO.
C.M.S.P. & P.
1000 0 1000 2000
SCALE IN FEET
CANADA
WISCONSIN
IOWA
PROJECT LOCATION
VICINITY MAP
DISTRICT BOUNDARY
100 0 100 200
SCALE IN MILES
LEGEND
WORK COMPLETED
NONE
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
NONE
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
MISSISSIPPI RIVER
LOCK AND DAM NO. 3
U.S. ARMY ENGINEER DISTRICT, ST. PAUL
MISSISSIPPI VALLEY DIVISION

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation

a. Channels and Harbors

The budget estimate of $134,089,000 provides for essential operation and maintenance on 29 channel projects named in the list which follows. The work to be accomplished under this activity consists of operating and maintaining the coastal navigation channels, harbors and anchorages by means of dredging, constructing bulkheads and spoil disposal areas, snagging, and repairing channel stabilization works, navigation structures, and harbor jetties, all as authorized in the laws pertaining to river and harbor projects.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Arkansas			
Helena Harbor	304,000	0	
	(25,000)	(0)	1. Variation in survey requirements.
	(279,000)	(0)	2. None.
Osceola Harbor	419,000	0	
	(23,000)	(0)	1. Variation in survey requirements.
	(396,000)	(0)	2. None.
White River	2,091,000	195,000	
	(285,000)	(195,000)	1. Variation in survey requirements.
	(1,806,000)	(0)	2. None.
Yellow Bend Port	123,000	0	
	(15,000)	(0)	1. Variation in survey requirements.
	(108,000)	(0)	2. None.

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Kentucky			
Elvis Stahr Harbor	361,000	0	
	(19,000)	(0)	1. Variation in survey requirements.
	(342,000)	(0)	2. None.
Louisiana			
Atchafalaya River,	14,026,000	13,181,000	
Bayous Chene,	(636,000)	(676,000)	1. None.
Boeuf and Black	(13,390,000)	(12,505,000)	2. None.
Barataria Bay Waterway	570,000	0	
	(110,000)	(0)	1. Variation in survey requirements.
	(460,000)	(0)	2. None.
Bayou LaFourche	726,000	730,000	
And LaFourche	(26,000)	(0)	1. Variation in survey requirements.
Jump Waterway	(700,000)	(730,000)	2. Dredging.
Bayou Segnette Waterway	735,000	0	
	(5,000)	(0)	1. Variation in survey requirements.
	(730,000)	(0)	2. None.
Calcasieu River	12,117,000	12,773,000	
	(757,000)	(1,063,000)	1. Variation in water management activities.
	(11,360,000)	(11,710,000)	2. Dredging.

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Freshwater Bayou	5,354,000	1,595,000	
	(1,034,000)	(0)	1. Variation in operation activities.
	(4,320,000)	(1,595,000)	2. Variation in structural maintenance requirements and dredging.
Gulf Intracoastal Waterway	19,478,000	18,195,000	
	(8,120,000)	(8,477,000)	1. None.
	(11,358,000)	(9,718,000)	2. Variation in structure maintenance requirements and dredging.
Houma Navigation Canal	3,175,000	3,343,000	
	(65,000)	(73,000)	1. None.
	(3,110,000)	(3,270,000)	2. Dredging.
Lake Providence	545,000	0	
	(19,000)	(0)	1. Variation in survey requirements.
	(526,000)	(0)	2. None.
Madison Parish Port	104,000	0	
	(12,000)	(0)	1. Variation in survey requirements.
	(92,000)	(0)	2. None.
Mississippi River	63,359,000	55,831,000	
Baton Rouge to	(4,426,000)	(6,511,000)	1. Continue Hydrographic Survey Book.
Gulf of Mexico	(58,933,000)	(49,320,000)	2. Dredging.
Mississippi River	11,286,000	13,111,000	
- Gulf Outlet	(286,000)	(311,000)	1. None.
	(11,000,000)	(12,800,000)	2. Dredging.

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Mississippi River			
Outlets at Venice	2,773,000	1,937,000	
	(93,000)	(0)	1. Variation in operation activities.
	(2,680,000)	(1,937,000)	2. Dredging.
Waterway from IWW	45,000	0	
To B. Dulac	(5,000)	(0)	1. Variation in survey requirements.
	(40,000)	(0)	2. None.
Minnesota			
Minnesota River	191,000	130,000	
	(66,000)	(0)	1. Variation in survey requirements.
	(125,000)	(130,000)	2. None.
Mississippi			
Claiborne County	119,000	0	
Port	(8,000)	(0)	1. Variation in survey requirements.
	(111,000)	(0)	2. None.
Mouth of Yazoo River	129,000	0	
	(25,000)	(0)	1. Variation in survey requirements.
	(104,000)	(0)	2. None.
Rosedale Harbor	626,000	0	
	(21,000)	(0)	1. Variation in survey requirements.
	(605,000)	(0)	2. None.

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Yazoo River, MS	111,000	0	
	(15,000)	(0)	1. Variation in survey requirements.
	(96,000)	(0)	2. None.
Missouri			
Caruthersville Harbor	295,000	0	
	(23,000)	(0)	1. Variation in survey requirements.
	(172,000)	(0)	2. None.
Mississippi River	12,648,000	13,068,000	
Between Ohio &	(3,104,000)	(4,174,000)	1. Variation in dredge surveys and labor costs.
Missouri Rivers	(9,544,000)	(8,894,000)	2. Dredging and dike construction.
New Madrid Harbor	354,000	0	
	(20,000)	(0)	1. Variation in survey requirements.
	(334,000)	(0)	2. None.
Southeast MO Port	400,000	0	
	(0)	(0)	1. None.
	(400,000)	(0)	2. None.
Tennessee			
Wolf River Harbor	348,000	0	
	(20,000)	(0)	1. Variation in survey requirements.
	(328,000)	(0)	2. None.

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
TOTAL - Channels and Harbors	152,812,000 (19,263,000) (133,549,000)	134,089,000 (21,480,000) (112,609,000)	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont'd)

b. Locks and Dams

The program request of $146,646,000 provides for the Operation and Maintenance requirements of fourteen canalized waterways including the Illinois Waterway and Mississippi River projects. Requirements include: operation and ordinary maintenance of project facilities; labor, supplies, materials and parts for day-to-day functioning, and periodic maintenance, repairs, and replacements.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Arkansas			
Ouachita and Black Rivers, AR and LA	6,170,000 (4,496,000) (1,674,000)	7,127,000 (5,159,000) (1,608,000)	 1. Increase in lock operations cost. 2. Dredging.
Illinois			
St. Louis District Illinois Waterway	1,597,000 (405,000) (1,192,000)	1,610,000 (414,000) (1,196,000)	 1. None. 2. Dredging.
Rock Island District Illinois Waterway	21,314,000 (14,002,000) (7,312,000)	21,881,000 (14,403,000) (7,478,000)	 1. None. 2. Dredging.
Kaskaskia River	1,716,000 (1,078,000) (638,000)	1,159,000 (1,159,000) (0)	 1. None. 2. None.
Illinois and Mississippi Canal, IL (Hennepin)	121,000 (0) (121,000)	0 (0) (0)	 1. None. 2. None.

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Illinois, Iowa, Minnesota, Missouri and Wisconsin			
St. Louis District			
Mississippi River between	14,170,000	13,897,000	
Missouri River &	(5,248,000)	(5,670,000)	1. None.
Minneapolis	(8,922,000)	(8,227,000)	2. Dredging.
Rock Island District			
Mississippi River between	44,610,000	42,431,000	
Missouri River &	(19,940,000)	(20,435,000)	1. None.
Minneapolis	(24,670,000)	(21,996,000)	2. Includes FY 01 Congressional add of 4 million increased maint to finish L/D 18 Overflow Spillway, L/D 14 Major Maint, L/D 13 Service Bridge, LD 11 Waterline.
St. Paul District			
Mississippi River between	43,596,000	45,329,000	
Missouri River & Minneapolis	(18,586,000)	(20,611,000)	1. Increase due to reevaluation of "operational Maintenance" as redefined in the FY 2002 Budget EC. The increase in operations was offset by corresponding decrease in facilities maintenance.
	(25,010,000)	(24,718,000)	2. Includes Major Rehabilitation at Locks and Dams 3, 5A-9 for $3,062,000 (See justification following this table); L/D 8 Lockwork, Stage 2, Building, Site and Control; L/D 9 Lockwork, Stage 2, Building, Site and Control; L/D's 7, 8, 9 and 10, Paint Dam Service Bridges; L/D 6, Fixed Crest Spillway Repair; L/D 3, Correct Outdraft Condition; L/D USAF Dewatering/Concrete Repairs.

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Louisiana			
Bayou Teche	132,000	0	
	(47,000)	(0)	1. Variation in survey requirements.
	(85,000)	(0)	2. None.
Bayou Teche and Vermilion River	48,000	0	
	(38,000)	(0)	1. Variation in survey requirements.
	(10,000)	(0)	2. None.
Mermentau River	1,933,000	933,000	
	(888,000)	(933,000)	1. None.
	(1,045,000)	(0)	2. None.
Red River Waterway, Mississippi River to Shreveport, LA	11,490,000	8,477,000	
	(5,006,000)	(6,093,000)	1. Variation in lock operations cost.
	(6,484,000)	(2,384,000)	2. Dredging.
Minnesota			
Reservoirs at Headwaters Mississippi River	3,279,000	3,552,000	
	(2,767,000)	(2,936,000)	1. None.
	(512,000)	(616,000)	2. None.
Mississippi			
Pearl River, MS and LA	241,000	250,000	
	(241,000)	(250,000)	1. None.
	(0)	(0)	2. None.

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

1. Navigation (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
TOTAL - Locks and Dams	150,417,000 (72,742,000) (77,675,000)	146,646,000 (78,423,000) (68,223,000)	
TOTAL - Navigation	302,229,000 (92,005,000) (211,224,000)	280,735,000 (99,903,000) (180,832,000)	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

2. Flood Control

a. Reservoirs

The program request of $31,258,000 for the Operation and Maintenance of twenty two flood control reservoir projects providing the amount necessary for operation requirements. Annual requirements are for the necessary operation and ordinary maintenance of project facilities; labor, supplies, materials and parts required for day-to-day functioning of the projects; and contact law enforcement. The requested amount also applications of special recreation user fees for recreation areas.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Illinois			
Carlyle Lake	5,113,000	4,962,000	
	(2,355,000)	(2,903,000)	1. Variation in operational labor cost.
	(2,758,000)	(2,059,000)	2. None.
Farm Creek	186,000	170,000	
	(45,000)	(42,000)	1. None.
	(141,000)	(128,000)	2. None.
Lake Shelbyville	4,344,000	6,071,000	
	(2,518,000)	(2,869,000)	1. Variation in operational labor cost.
	(1,826,000)	(3,202,000)	2. Complete shoreline restoration Phase IIB.
Rend Lake	5,528,000	4,760,000	
	(2,073,000)	(2,318,000)	1. Variation in operational labor cost.
	(3,455,000)	(2,442,000)	2. Variation in recreation maintenance.
Union Lake	29,000	10,000	
	(29,000)	(10,000)	1. Variation in operational labor cost.
	(0)	(0)	2. None.

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

2. Flood Control (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Iowa			
Coralville Lake	2,832,000	2,735,000	
	(2,134,000)	(2,053,000)	1. None.
	(698,000)	(682,000)	2. None.
Red Rock Dam - Lake Red Rock	4,501,000	3,356,000	
	(2,131,000)	(2,262,000)	1. None.
	(2,370,000)	(1,094,000)	2. Levee repair South East Des Moines.
Saylorville Lake	3,820,000	3,887,000	
	(3,005,000)	(3,143,000)	1. None.
	(815,000)	(744,000)	2. None.
Louisiana			
Bayou Bodcau Reservoir	496,000	652,000	
	(477,000)	(566,000)	1. Increase in operational cost.
	(19,000)	(86,000)	2. None.
Caddo Lake	123,000	92,000	
	(96,000)	(92,000)	1. None.
	(27,000)	(0)	2. None.
Wallace Lake	224,000	154,000	
	(188,000)	(152,000)	1. Scheduled Periodic Inspections.
	(36,000)	(2,000)	2. None.

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

2. Flood Control (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Minnesota			
Big Stone Lake - Whetstone River	213,000	217,000	
	(213,000)	(217,000)	1. None.
	(0)	(0)	2. None.
Lac Qui Parle Lake	486,000	573,000	
	(417,000)	(499,000)	1. Scheduled periodic inspections.
	(69,000)	(74,000)	2. None.
Lake Traverse, MN & SD	1,322,000	531,000	
	(404,000)	(458,000)	1. Scheduled periodic inspections.
	(918,000)	(73,000)	2. None.
Orwell Lake	869,000	337,000	
	(328,000)	(324,000)	1. None.
	(541,000)	(13,0000)	2. None.
Red Lake Reservoir	527,000	146,000	
	(127,000)	(146,000)	1. Scheduled periodic inspections.
	(400,000)	0	2. None.
North Dakota			
Lake Ashtabula - Baldhill Dam	1,447,000	1,264,000	
	(1,097,000)	(1,153,000)	1. None.
	(350,000)	(111,000)	2. None.

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

2. Flood Control (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Homme Lake	177,000	164,000	
	(177,000)	(164,000)	1. None.
	(0)	(0)	2. None.
Souris River	367,000	385,000	
	(315,000)	(331,000)	1. None.
	(52,000)	(54,000)	2. None.
Wisconsin			
Eau Galle River Lake	894,000	736,000	
	(537,000)	(613,000)	1. Increase due to a reduction in FY 2001 operations costs when the FY 2001 work allowances were prepared. The FY 2002 operations costs will also be reduced to more accurately reflect anticipated operations costs when the FY 2002 work allowances are prepared.
	(357,000)	(123,000)	2. None.
La Farge Lake	54,000	56,000	
	(54,000)	(56,000)	1. None.
	(0)	(0)	2. None.

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

2. Flood Control (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
TOTAL - Reservoirs	33,552,000 (18,720,000) (14,832,000)	31,258,000 (20,371,000) (10,887,000)	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

2. Flood Control (Cont'd)

b. Channel Improvements, Inspections and Miscellaneous Maintenance

The budget estimate of $1,897,000 provides for inspection of completed works during the budget year. All work is programmed.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Louisiana			
Bayou Pierre	25,000	28,000	
	(0)	(0)	1. None.
	(25,000)	(28,000)	2. None.
Inspection of Completed	1,815,000	1,869,000	
Arkansas	(195,000)	(201,000)	1. Variation in inspections.
Illinois	(541,000)	(526,000)	
Iowa	(63,000)	(63,000)	
Kentucky	(5,000)	(5,000)	
Louisiana	(501,000)	(549,000)	
Minnesota	(96,000)	(101,000)	
Missouri	(138,000)	(139,000)	
Mississippi	(120,000)	(126,000)	
North Dakota	(49,000)	(52,000)	
Tennessee	(90,000)	(90,000)	
Wisconsin	(17,000)	(17,000)	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

2. Flood Control (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
TOTAL - Channel Improvements	1,840,000	1,897,000	
Inspection and Misc	(1,815,000)	(1,869,000)	
Maintenance	(25,000)	(28,000)	
TOTAL - Flood Control	35,392,000	33,155,000	
	(20,535,000)	(22,240,000)	
	(14,857,000)	(10,915,000)	

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

3. Multiple Purpose Power Projects

The program request of $18,473,000 for the operation and maintenance of four multiple purpose projects provides the amount necessary for operation requirements. Annual requirements are for the necessary operation and ordinary maintenance of project facilities, labor, supplies, materials and parts required for day-to-day functioning of the project; and contract law enforcement. The requested amount also includes application of Special Recreation Use Fees for recreation areas.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Arkansas			
Blakely Mt. Dam	6,043,000	4,734,000	
Lake Ouachita	(4,055,000)	(4,164,000)	1. None.
	(1,988,000)	(570,000)	2. None.
Degray Lake	4,662,000	4,235,000	
	(3,352,000)	(3,483,000)	1. None.
	(1,310,000)	(752,000)	2. None.
Narrow Dam - Lake Greeson	3,848,000	3,308,000	
	(2,865,000)	(2,942,000)	1. None.
	(983,000)	(366,000)	2. None.
Missouri			
Clarence Cannon	5,644,000	6,196,000	
and Reservoir	(3,195,000)	(3,619,000)	1. Variation in operation cost.
	(2,449,000)	(2,577,000)	2. None.
TOTAL - Multiple Purpose	20,197,000	18,473,000	
	(13,467,000)	(14,208,000)	
	(6,730,000)	(4,265,000)	

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

4. Protection of Navigation

The aquatic program request shown provides for accomplishing the work necessary for the eradication of aquatic plant and project condition surveys.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Aquatic Growth	2,000,000	2,000,000	
Louisiana	(0)	(0)	1. None.
	(2,000,000)	(2,000,000)	2. None.
Project Condition Surveys	135,000	134,000	
Arkansas	(8,000)	(10,000)	
Illinois	(0)	(0)	
Kentucky	(0)	(0)	
Louisiana	(80,000)	(80,000)	
Minnesota	(16,000)	(7,000)	
Mississippi	(0)	(0)	
Missouri	(0)	(0)	
Tennessee	(13,000)	(19,000)	
Wisconsin	(8,000)	(8,000)	
Surveillance of Northern Boundary Waters	62,000	66,000	
Minnesota	(62,000)	(66,000)	1. None.
			2. None.
TOTAL - Protection of Navigation	2,187,000	2,200,000	
	(187,000)	(200,000)	
	(2,000,000)	(2,000,000)	

MISSISSIPPI VALLEY DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2002

4. Protection of Navigation (Cont'd)

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
GRAND TOTAL -	361,005,000	334,563,000	
MISSISSIPPI	(126,194,000)	(136,551,000)	
VALLEY DIVISION	(234,811,000)	(198,012,000)	

APPROPRIATION TITLE: Operation and Maintenance - Major Rehabilitation - Locks and Dams (Navigation)

PROJECT: Mississippi River between Missouri River and Minneapolis, Minnesota, Locks and Dams Nos. 3, 5A, 6, 7, 8, and 9, Minnesota, Wisconsin and Iowa (Major Rehab)(Continuing)

LOCATION: Locks and Dams 3 and 5A-9 are located on the Mississippi River between river miles 797 and 648 and approximately between Red Wing, Minnesota and Prairie du Chien, Wisconsin. Counties located along the river in this area are Dakota, Washington, Wabasha, Winona and Houston in Minnesota; Trempealeau, Buffalo, Pierce, La Crosse, Vernon, Crawford and Grant in Wisconsin and Allamakee and Clayton in Iowa.

DESCRIPTION: The original structures were placed in operation between 1936 and 1938. Each lock and dam consists of a lock (standard dimensions of 600 ft. long by 110 ft. wide), an uncompleted auxiliary lock, a dam consisting of movable gates to control river elevation, an earth embankment and an ungated overflow spillway. Work items under the major rehabilitation program are the replacement and/or refurbishing of the mechanical and electrical systems. This includes the machinery and control systems that operate the lock gates, the valves that control the level of water in the lock, and the movable gates of the dam. All work is programmed.

AUTHORIZATION: River and Harbor Act of 1930.

REMAINING BENEFIT-REMAINING COST RATIO: The remaining benefit-remaining cost ratio is not applicable because monetary benefits have not been quantified.

TOTAL BENEFIT-COST RATIO: The total benefit-cost ratio is not applicable because monetary benefits have not been quantified.

INITIAL BENEFIT-COST RATIO: The initial benefit-cost ratio is not applicable because monetary benefits have not been quantified.

BASIS OF BENEFIT-COST RATIO: The basis for the benefit-cost ratio is not applicable because monetary benefits have not been quantified.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$63,100,000		Entire Project	76	Being determined
Estimated Non-Federal Cost	0				
Total Estimated Project Cost	$63,100,000				
			PHYSICAL DATA		
Allocations to 30 September 2000	46,925,000				
Conference Amount for FY 2001	2,595,000		DAMS:		
Allocation for FY 2001	3,392,000 [1]		Replace electrical systems		6 each
Allocations through FY 2001	50,317,000	80	Replace/refurbish gate chains		29 each
			LOCKS:		
Allocation Requested for FY 2002	3,062,000	85	Replace miter gate machinery		24 each
Programmed Balance to Complete after FY 2002	9,721,000		Replace tainter valve machinery		24 each
Unprogrammed Balance to Complete after FY 2002	0		Replace electrical systems		6 each

JUSTIFICATION: The mechanical and electrical systems of the locks and dams have reached or exceeded their useful life of 50 years. Many of the mechanical components are custom made and a malfunction of any of the parts could shut down a lock for extended periods of time while replacement parts are being manufactured. A major failure of the mechanical system could close operation of the lock for 2 to 3 months. Frequent minor breakdowns which will close the lock for 2 to 3 days at a time are anticipated. Annual navigation benefits total $9,373,086.

FISCAL YEAR 2002: The requested amount of $3,062,000 will be applied as follows:

Continue:	
Lock System Work	$ 1,929,000
Dam System Work, Bulkhead Hoist Systems, and Gate Chains Improvements	616,000
Planning, Engineering and Design	226,000
Supervision and Administration	291,000
Total	$ 3,062,000

NON-FEDERAL COST: Not applicable.

[1] Reflects $78,000 reduction assigned as savings and slippage and $875,000 reprogrammed to the project.

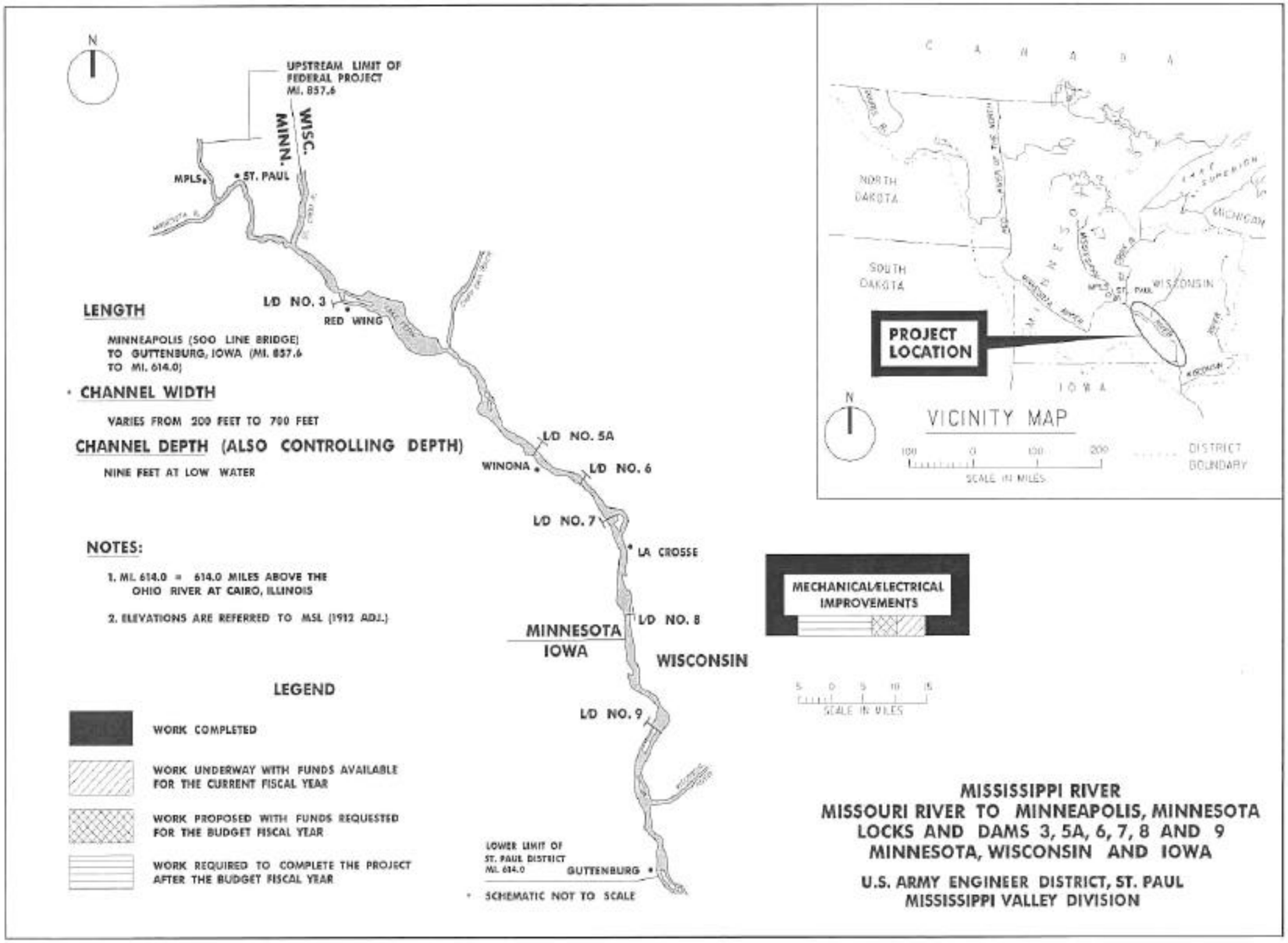
STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $63,100,000 is a decrease of $3,600,000 from the latest estimate ($66,700,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ -586,000
Post Contract Award and Other Estimating Adjustments (Including Contingency Adjustments)	-3,014,000
Total	$ -3,014,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment was prepared in June 1987. The Finding of No Significant Impact was signed in August 1987. The Final Programmatic Environmental Impact Statement Record of Decision was signed 28 July 1989.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1986. The project has features that must be funded concurrently with Mississippi River Operation and Maintenance funds.


N
UPSTREAM LIMIT OF FEDERAL PROJECT MI. 857.6
WISC.
MINN.
MPLS.
ST. PAUL
L/D NO. 3
RED WING
LENGTH
MINNEAPOLIS (SOO LINE BRIDGE) TO GUTTENBURG, IOWA (MI. 857.6 TO MI. 614.0)
CHANNEL WIDTH
VARIES FROM 200 FEET TO 700 FEET
CHANNEL DEPTH (ALSO CONTROLLING DEPTH)
NINE FEET AT LOW WATER
L/D NO. 5A
WINONA
L/D NO. 6
L/D NO. 7
LA CROSSE
NOTES:
1. MI. 614.0 = 614.0 MILES ABOVE THE OHIO RIVER AT CAIRO, ILLINOIS
2. ELEVATIONS ARE REFERRED TO MSL (1912 ADJ.)
MINNESOTA
IOWA
L/D NO. 8
WISCONSIN
MECHANICAL/ELECTRICAL IMPROVEMENTS
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
L/D NO. 9
LOWER LIMIT OF ST. PAUL DISTRICT MI. 614.0
GUTTENBURG
SCHEMATIC NOT TO SCALE
SCALE IN MILES
CANADA
NORTH DAKOTA
SOUTH DAKOTA
MICHIGAN
WISCONSIN
IOWA
PROJECT LOCATION
VICINITY MAP
SCALE IN MILES
DISTRICT BOUNDARY
MISSISSIPPI RIVER
MISSOURI RIVER TO MINNEAPOLIS, MINNESOTA
LOCKS AND DAMS 3, 5A, 6, 7, 8 AND 9
MINNESOTA, WISCONSIN AND IOWA
U.S. ARMY ENGINEER DISTRICT, ST. PAUL
MISSISSIPPI VALLEY DIVISION

Justification of Estimates for Civil Works Activities
Department of the Army, Corps of Engineers
Fiscal Year 2002

SUMMARY MISSISSIPPI RIVER COMMISSION

Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MO, MS, & TN

	FY 2001 Allocation	FY 2002 Request	Increase or Decrease
General Investigations	$ 12,951,000	$ 7,414,000	$ -5,537,000
Survey	3,886,000	3,209,000	-677,000
Preconstruction Engineering and Design	9,065,000	4,205,000	-4,860,000
Construction	200,167,000	140,542,000	-59,625,000
Operation and Maintenance, General	155,812,000[1]	144,444,000	-11,368,000
Project Operation	53,355,000	50,672,000	-2,683,000
Project Maintenance	102,457,000	93,772,000	-8,685,000
Less Reduction for Savings and Slippage	-18,472,000	-12,400,000	6,072,000
GRAND TOTAL, MISSISSIPPI RIVER COMMISSION	$350,458,000[2]	$280,000,000	$-70,458,000

[1] Includes $3,500,000 provided by the Consolidated Appropriations Act, 2001.
[2] Reflects rescission of 0.22 percent of the Fiscal Year 2001 Energy and Water Resources Development Act. Appropriated in accordance with the Consolidated Appropriations Act, 2001.

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2002

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
1. SURVEYS - NEW					
a. Navigation Studies: None.					
b. Flood Damage Prevention Studies: None.					
c. Shoreline Protection Studies: None.					
d. Special Studies: None.					
e. Comprehensive Studies: None.					
f. Watershed/Ecosystem Studies: None.					
TOTAL SURVEYS - NEW	0	0	0	0	0

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2002

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
2. SURVEYS - CONTINUING					
a. Navigation Studies: None.					
b. Flood Damage Prevention Studies: The amount of $1,894,000 is being requested to continue four feasibility studies in FY 2002.					
LOUISIANA					
Alexandria, LA, to the Gulf of Mexico, LA New Orleans District	3,150,00	100,000	710,000	500,000	1,840,000

The study area is located in south-central Louisiana and encompasses an area of about 1,700 square miles extending through nine parishes from Alexandria, Louisiana, to the Gulf of Mexico. The area is the drainage basin for the West Atchafalaya Basin Floodway Levee intercepted drainage system, a feature of the Mississippi River and Tributaries project, that prevents overflow from the Atchafalaya Basin Floodway and intercepts flows from the areas major outlets. The largest urban area in the study area is Alexandria, which has experienced numerous floods in its metropolitan area. New Iberia and Opelousas are also in the study area. There have been extensive flooding problems in the Alexandria area and widespread flooding throughout the basin in the more rural and agricultural areas. Since 1953 there have been fifteen significant storm events with rainfall ranging from 5.4 to 18 inches in the study area. The lower portion of the study area is in the coastal zone and is comprised of wetlands subject to hurricane flooding and related problems including erosion, subsidence, saltwater intrusion, etc. The area is very rich in fish and wildlife resources. The sponsors have requested that flooding problems in the Alexandria, Louisiana area be addressed in the first phase of the feasibility study.

Fiscal Year 2001 and Fiscal Year 2002 funds will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $6,100,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one-half of the non-Federal share may be in-kind services. The local sponsor is the Louisiana Department of Transportation and Development and the Rapides Parish Gravity Drainage District No. 1. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,200,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	3,050,000
Feasibility Phase (Non-Federal)	3,050,000

The reconnaissance phase was completed in June 1999. The feasibility study completion date is being determined.

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2002

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Donaldsonville, LA to the Gulf of Mexico New Orleans District	4,000,000	500,000	1,043,000	700,000	1,757,000

The study area is located in southeast Louisiana and includes portions of the Parishes of Assumption, St. James, St. John the Baptist, Lafourche, St. Charles, Jefferson, and Plaquemines. The area is bounded on the west by Bayou Lafourche and on the east and north by the west bank Mississippi River levee, from Donaldsonville, LA to the Gulf of Mexico. The basin is subject to rainfall, tidal, and hurricane flooding resulting in structural, agricultural, and environmental damages. Flooding damages are aggravated by the long duration of high stages due to conveyance obstractions. The prolonged stages destroy crops and stress the natural vegetation. Floods in June 1959, April 1980, November 1989, January 1991, and April/May 1991 produced near 100-year flood conditions with less than 100-year rainfall. Hurricane Juan in 1985 also produced near 100-year flood stages. This area has been declared a Federal disaster area three times since 1985 and has experienced several additional storms, causing FEMA to provide additional individual assistance. Red Cross surveys of the area after the April/May 1991 flood event indicated that some 300 residential structures were flooded to varying degrees. Flood damages also occurred in August 1992 as a result of Hurricane Andrew and in May 1995 due to heavy rainfall in the area. The expected study outcome will be to reduce flooding and flood duration by channel modifications, pumping, and water management such that structural and agricultural damages will be prevented and provide environmental restoration to stressed habitat. The study authority is provided by a House Resolution of the Committee on Transportation and Infrastructure, adopted May 6, 1998, Docket 2554. The Lafourche Basin Levee District has agreed to fund the non-Federal share until the State of Louisiana obtains funds. The local sponsor is the Department of Transportation and Development. The FCSA signing is scheduled for May 2001.

Fiscal Year 2001 funds and Fiscal Year 2002 funds are being used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $7,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. All of the non-Federal share will be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$7,500,000
Reconnaissance Phase (Federal)	500,000
Feasibility Phase (Federal)	3,500,000
Feasibility Phase (Non-Federal)	3,500,000

The feasibility study completion date is being determined.

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2002

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Olive Branch, MS Vicksburg District	1,500,000	0	200,000	300,000	1,000,000

The study area lies primarily in DeSoto County in the vicinity of Olive Branch, Mississippi. This region is experiencing rapid urbanization with associated increases in stormwater runoff, bank stabilization problems, and water quality degradation. Homes and businesses in certain locations that were previously above the 100-year floodplain are now within this flood zone. Extensive development is anticipated for the upper Coldwater River Watershed over the next 50 years which will exacerbate flooding problems already experienced in the Olive Branch area. In other areas, minor flooding will increase because of widespread changes to the flood plain. Bank caving problems are also expected to increase due to higher runoff rates. Reconnaissance phase studies have been accomplished as part of the Memphis Metropolitan Area Reconnaissance study. The potential sponsor for this study is the City of Olive Branch, Mississippi.

Fiscal Year 2001 and Fiscal Year 2002 funds will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one-half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,000,000
Reconnaissance Phase (Federal)	0 [1]
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase is scheduled for completion in April 2001. The feasibility study completion date is being determined.

[1] Funded as part of the Memphis Metropolitan Area, TN, study.

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2002

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Memphis Metropolitan Area, TN & MS Memphis District	2,925,000	850,000	253,000	394,000	1,428,000

The Memphis Metropolitan study area includes all or part of six counties: Shelby, Tipton and Fayette Counties in southwest Tennessee and DeSoto, Benton, and Marshall Counties in northwest Mississippi. The area encompasses all or part of six major drainage basins: Hatchie River, Loosahatchie River, Wolf River, Nonconnah Creek, Horn Lake Creek, and Coldwater River. The area includes approximately 2,600 square miles. The area has experienced extensive growth and development in recent years, and projections are that these trends will continue at an accelerated rate. Major problems with drainage and other infrastructure are prevalent throughout the area. Recent studies show that the 100-year flood profile has increased up to two feet in some locations as a result of development. Similar situations are expected area wide. The reconnaissance report, completed in March 1999, identified over 70 areas where flooding, erosion and water quality problems exist. Three potential projects have been identified as feasible in the reconnaissance study. The channel improvement projects are Fletcher Creek at a cost of $2.2 million, Horn Lake Creek at a cost of $5.0 million, and Camp Creek and Tributaries at a cost of $2.0 million. Other problem areas, including the Cities of Germantown and Millington, TN, have been identified for further study in the feasibility phase. The City of Germantown has provided a letter of intent to sponsor a feasibility study. Potential solutions to the flooding problems along Horn Lake Creek have significant interest with the Mississippi Congressional delegation. Other potential local sponsors are the City of Memphis, Shelby County, and the Chickasaw Basin Authority in Tennessee; and DeSoto County, the Horn Lake Creek Drainage District, and the Cities of Horn Lake and Southaven in Mississippi.

If the reconnaissance report is certified to be in accord with policy, Fiscal Year 2001 and Fiscal Year 2002 funds will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $4,150,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,000,000
Reconnaissance Phase (Federal)	850,000
Feasibility Phase (Federal)	2,075,000
Feasibility Phase (Non-Federal)	2,075,000

The reconnaissance phase is scheduled for completion in April 2001. The feasibility study completion date is being determined.

Total Flood Damage Prevention Studies	11,575,000	1,450,000	2,206,000	1,894,000	6,025,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
c. Shoreline Protection Studies: None.					
d. Special Studies: None.					
e. Comprehensive Studies: None.					
f. Watershed/Ecosystem Studies: The amount of $700,000 is requested to continue two feasibility studies.					
Spring Bayou, Louisiana Vicksburg District	2,850,000	200,000	150,000	500,000	2,000,000

The Spring Bayou area is located in east-central Louisiana about 20 miles west of the confluence of the Mississippi, Red, and Atchafalaya Rivers. The area encompasses at least 43 lakes and streams and includes three state wildlife management areas and two national wildlife refuges. This ecosystem is being rapidly degraded from pollution of water, sedimentation, rampant growth of exotic aquatic plants and frequent, excessive flooding. Approximately 80,000 acres have been put into reforestation programs in the past 20 years with another 30,000 acres proposed for the future. However, reforestation has been hampered by frequent flooding with tree mortality running as high as 75 percent. Sediment being transported into the 12,000-acre Spring Bayou Wildlife Management Area is filling this cypress-tupelo wetland once known as Louisiana's "Sportsman's Paradise." Representatives of the U.S. Fish and Wildlife Service and the Louisiana Department of Wildlife and Fisheries have expressed concern regarding the deteriorating conditions on the refuges and management areas. The tentative non-Federal sponsor is the Avoyelles Wildlife Federation. Study authority is provided in a resolution by the Committee on Transportation and Infrastructure, U.S. House of Representatives, dated 24 March 1998.

Fiscal Year 2001 funds are being used to fully fund the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2002 will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $5,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one -half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,350,000
Reconnaissance Phase (Federal)	350,000
Feasibility Phase (Federal)	2,500,000
Feasibility Phase (Non-Federal)	2,500,000

The reconnaissance phase is scheduled for completion in July 2001. The feasibility study completion date is being determined.

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2002

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Coldwater River Basin Below Arkabutla Lake, MS Vicksburg District	1,350,000	0	95,000	200,000	1,055,000

The study area is located in northwest Mississippi approximately 30 miles south of Memphis, TN. Increased development within this segment of the Coldwater River Basin has created pressure on area streams to meet water quality standards while maintaining flood damage reduction goals. Yazoo Mississippi Delta Joint Water Management District in conjunction with Tunica County, MS, has requested assistance from the Corps of Engineers in identifying appropriate implementable measures to improve water management, water quality, and the wetland ecosystem throughout this watershed. In particular, the potential sponsors want to implement specific projects and develop guidelines for future development that will improve the aquatic environment and conserve water resources for use in agricultural production and habitat restoration. Projects will be designed to prevent increases in downstream stages or other adverse effects outside the study area. The potential sponsor is the Yazoo Mississippi Delta Joint Water Management District. Yazoo Mississippi Delta has verbally expressed interest in this project since the spring of 2000 and will provide a letter of support prior to execution of the Feasibility Cost-Sharing Agreement.

Fiscal Year 2001 funds are being used to fully fund the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2002 will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase if $2,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one-half of the non-Federal share may be in-kind services. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$2,600,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,250,000
Feasibility Phase (Non-Federal)	1,250,000

The reconnaissance phase is scheduled for completion in October 2001. The feasibility study completion date is being determined.

Total Watershed/Ecosystem Studies	4,200,000	200,000	245,000	700,000	3,055,000

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2002

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
g. Collection and Study of Basic Data	N/A	N/A	413,000	615,000	N/A

Surveys, Gages, and Observations. The funds requested for Fiscal Year 2002 are for collection of essential basic data which are subsequently used in the planning and design of flood control projects. The data collected under this activity are for authorized projects or units thereof for which funds have not been appropriated. The data to be collected will consist of information on stream flow, rainfall, floods, and other items of related hydrologic nature.

TOTAL - SURVEYS - NEW	0	0	0	0	0
TOTAL - SURVEYS - CONTINUING	15,775,000	1,650,000	2,451,000	2,594,000	9,080,000
TOTAL - SURVEYS	15,775,000	1,650,000	2,864,000	3,209,000	9,080,000

3. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) - NEW START - None.

4. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED) - CONTINUING:

   a. Navigation: None.

   b. Flood Control: The amount of $4,205,000 is being requested to continue one and complete one PED project.

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2002

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
LOUISIANA					
Morganza, LA, to the Gulf of Mexico New Orleans District	52,000,000	414,000	1,895,000	4,000,000	45,691,000

The study area is located in south Louisiana and includes portions of Terrebonne and Lafourche Parishes. The study area is subject to primarily backwater and tidal flooding. Extensive flooding occurred in the study area in 1973. Less extensive, but still widespread flooding, has occurred since that time, notably in 1989, May 1991, and 1992. In the May 1991 event, damages in Lafourche and Terrebonne Parishes were estimated at $12,000,000. Between 1950 and 1990, the population increased from 61,000 to 97,000 or about 59 percent. Increases in population and other land use changes such as land clearing, subsidence and land loss have contributed to the increased stages. Also, there is a high probability that improvements to the existing flood control system have not kept pace with population growth and land use changes that would increase runoff. The expected outcome of the study would be to recommend hurricane protection for Terrebonne and Lafourche Parishes. The Water Resources Development Act of 1996 directed the Corps to perform a separate analysis of a lock in the Houma Navigation Canal for hurricane protection, saltwater intrusion, environmental preservation, safe harbor refuge, and potable water supply protection. This separate study was submitted to Congress in April 1997. The report recommended accomplishing Preconstruction Engineering and Design (PED) concurrent with the on-going feasibility study so that implementation would be advanced should a favorable report be authorized. The preliminary benefit-cost ratio is 1.3 to 1 based upon the latest economic analysis dated August 2000. PED for the Houma Navigation Lock was authorized by Congress in FY 1997. The Louisiana Department of Transportation and Development is the feasibility cost sharing sponsor and will continue as the project sponsor. PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED phase at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction. The initial PED estimate is for the Houma Lock portion of the project; the ultimate estimate is for the entire project.

Total Estimated Preconstruction Engineering and Design Costs	$2,700,000	Total Estimated Preconstruction Engineering and Design Costs	$69,300,000
Initial Federal Share	2,025,000	Ultimate Federal Share	52,000,000
Initial Non-Federal Share	675,000	Ultimate Non-Federal Share	17,300,000

The project is not authorized for construction. Fiscal Year 2001 funds are being used to continue PED on the Houma Navigation Lock. The feasibility report for the remaining portion of the study will be completed in June 2001. Fiscal Year 2002 funds will be used to continue PED on the Houma Navigation Lock and initiate PED for other project features such as levees and floodwalls. The PED completion date is being determined.

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2002

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
Wolf River, Memphis, TN Memphis District	410,000	0	205,000	205,000	0

The Wolf River study area is located in Hardeman, Fayette, and Shelby Counties, Tennessee, and Tippah, Marshall, and Benton Counties, Mississippi. The Wolf River flows northwestward approximately 86 miles to its confluence with the Mississippi River at Memphis, Tennessee, meandering through bottomland hardwood forests in its upper reaches and a man-altered channel in its lower reaches. The primary water resources problems in the basin are losses of nationally significant fish and wildlife habitat due in part to previous Corps projects. A feasibility study conducted in 1999 examined the Wolf River corridor with respect to flood control, ecosystem restoration, wetlands protection, recreation, and other needs. The lower basin has experienced a change in the hydraulic regime resulting from urbanization, especially in Shelby County, causing the dying of seasonally flooded bottomland hardwoods and other wetlands. Severe channel instability problems have resulted in the loss of riparian and fisheries habitat and threatened public infrastructure on the main channel and tributaries. The recommended plan of improvement identified in the feasibility study includes construction of six main channel weirs and eighteen tributary weirs for grade stabilization, two cutoff prevention weirs on the main channel, trails, wildlife corridors and boat ramps all in Shelby County, Tennessee. The estimated construction cost is $9,905,000, with an estimated Federal cost of $6,350,000 and non-Federal cost of $3,555,000. Average annual benefits resulting from the plan include over 2,144 annual habitat unit values (AHUVs) and $414,000 in recreational benefits. The Chickasaw Basin Authority, an agency of the State of Tennessee, was the cost-sharing sponsor for the feasibility study. It also provided a letter of intent on 1 June 2000 to enter into a pre-construction engineering and design (PED) cost sharing agreement for the first item of construction. The Chief's Report for the feasibility study was signed on 29 December 2000. The sponsor has been furnished a draft copy of the PED Cost Sharing Agreement. It is expected that the agreement is scheduled to be executed by 31 March 2001.

Preconstruction engineering and design (PED) will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$547,000	Total Estimated Preconstruction Engineering and Design Costs	$547,000
Initial Federal Share	410,000	Ultimate Federal Share	356,000
Initial Non-Federal Share	137,000	Ultimate Non-Federal Share	191,000

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - General Investigations, Fiscal Year 2002

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2001 $	Allocation FY 2001 $	Tentative Allocation FY 2002 $	Additional to Complete After FY 2002 $
The project is authorized for construction by Section 101 of the Water Resources Development Act of 2000. The cost sharing for construction of the project will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. Fiscal Year 2001 funds are being used to initiate PED. Fiscal Year 2002 funds will be used to complete PED. The PED completion date is being determined.					
Total - Flood Control	52,410,000	414,000	2,100,000	4,205,000	45,691,000
TOTAL - PED	52,410,000	414,000	2,100,000	4,205,000	45,691,000
GRAND TOTAL - Surveys & PED	69,213,000	2,064,000	4,964,000	7,414,000	54,771,000

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, & TN - Construction

PROJECT: Mississippi River and Tributaries, Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri, and Tennessee (Continuing)

LOCATION: The comprehensive project for Flood Control, Mississippi River and Tributaries will provide flood protection for the alluvial valley of the Mississippi River from Cape Girardeau, Missouri, to the Head of Passes, Louisiana; and for improvement of the Mississippi River for navigation from Cairo, Illinois, to Baton Rouge, Louisiana. It includes the main river, the basins of the St. Francis, White, Arkansas, Tensas, Red, Yazoo and Atchafalaya Rivers, the alluvial lands around Lake Pontchartrain, and the tributary streams in Western Tennessee and Kentucky. The completed project will provide protection against a project design flood, which will amount to a flow of 2,360,000 cubic feet per second at Cairo, Illinois, and 3,030,000 cubic feet per second at the latitude of Old River above Baton Rouge, Louisiana. This flow will divide near this point with 1,530,000 cubic feet per second going down the Atchafalaya River and the West Atchafalaya and Morganza Floodways. The remaining 1,500,000 cubic feet per second will continue down the Mississippi River to a point above New Orleans, where 250,000 cubic feet per second will be diverted through the Bonnet Carre' Spillway to Lake Pontchartrain. The flow past New Orleans to the Gulf of Mexico will then be 1,250,000 cubic feet per second, which is the river's safe capacity.

The control of this large quantity of water will be accomplished by every practical means of flood control, especially reservoirs, levees, cutoffs, revetments, and floodways.

The justification of the funds requested is presented on separate sheets for each major feature of the project. These major features are termed "project" for the purposes of reporting, accounting and fiscal control, and where appropriate, are further separated into their separable units.

AUTHORIZATION: Flood Control Act of 1928, as amended.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST
Total Estimated Federal Cost	$13,656,745,000	
Allocations to 30 September 2000	7,189,524,000	
Allocations for FY 2001	183,278,000	
Allocations through FY 2000	7,372,802,000	55
Allocations Requested for FY 2002	144,747,000	56
Programmed Balance to Complete after FY 2002	5,246,221,000	
Unprogrammed Balance to Complete after FY 2002	892,975,000	

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $13,656,745 for the Mississippi River and Tributaries project is an increase of $953,419,000 from the latest estimate ($12,703,326,000) submitted to Congress (FY 2001). Detail of the changes for features included in the Fiscal Year 2002 budget request are shown under the individual features on the following pages of the Justification Data.

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, TN - Construction

PROJECT: Mississippi River Levees, Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri and Tennessee (Continuing)

LOCATION: The Mississippi River Levee system on the west bank extends from Allenville, Missouri, on the Little River Diversion Channel generally southward to the vicinity of 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: The plan of improvement provides for raising, strengthening, and in some cases, extending existing levees to provide protection against the project flood. This feature includes 1,519.5 miles of levees and 14.8 miles of floodwall. All work is programmed.

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1938, 1941, 1946, 1950, 1954, 1962, 1965, 1968, and PL 92-222.

REMAINING BENEFIT-REMAINING COST RATIO: 36.6 to 1 at 21/2 percent. The benefit-cost ratio is based on all features which comprise the Main Stem system of the Mississippi River and Tributaries project.

TOTAL BENEFIT-COST RATIO: 7.9 to 1 at 2-1/2 percent.

INITIAL BENEFIT-COST RATIO: This project feature of the Main Stem system was authorized in Fiscal Year 1928 and initial construction funds were provided in Fiscal Year 1928. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the Main Stem system. The benefit-cost ratio for the Main Stem components computed for the base estimate was 7.9 to 1.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in October 1979 at 1979 price levels. The last comprehensive analysis was conducted in 1974. The 1979 analysis is the same as the 1974 analysis except that certain undocumented benefit categories were eliminated and 1979 prices were used.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		$2,106,000,000		Entire Project	91	Being determined
Future Non-Federal Reimbursement		674,000				
Estimated Federal Cost (Ultimate)		2,105,326,000		PHYSICAL DATA		
Estimated Non-Federal Cost		$ 73,200,000		Channel and Canals		72 miles
Cash Contributions	$ 1,700,000			Levees:		
Other Costs	70,826,000			Average Height		20-35 feet
Reimbursement	674,000			Length		1,519.5 miles
Recreation Facilities	$674,000			Floodwalls:		
				Average Height		14-23 feet
Total Estimated Project Cost		$2,178,526,000		Length		14.8 miles
				Levee Berms		629.3 miles
Allocations to 30 September 2000		$ 895,637,000		Levee Roads		1,500.0 miles
Conference Allowance for FY 2001		47,000,000		Pumping Stations		5
Allocation for FY 2001		40,911,000[1]				
Allocations through FY 2001		936,548,000	44			
Allocation Requested for FY 2002		$ 43,457,000	46			
Programmed Balance to Complete After FY 2002		1,125,995,000				
Unprogrammed Balance to Complete After FY 2002		0				

[1] Reflects $2,371,000 reduction assigned as savings and slippage, $3,620,000 reprogrammed from the project, and $98,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The Mississippi River Levee system is one of several Main Stem components, which together comprise the plan of improvement for the control of floods on the Mississippi River. The components are: Mississippi River Levees, Channel Improvement, South Bank Arkansas and South Bank Red River Levees, the Atchafalaya Basin, Atchafalaya Basin Floodway System, Old River and a few miscellaneous items. Because the benefits of the Mississippi River Levees derive from the way in which they operate together with the other Main Stem components when the Mississippi River floods, the benefit-cost ratio is a composite one that covers the entire plan.

The Mississippi River Levee System provides protection to 23,620 square miles and partial protection to an additional 3,780 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.

The value of lands and improvements protected by authorized works against the design flood is $139.4 billion in 2000 dollars. This consists of 226,000 residential acres which include the City of New Orleans, 45,000 acres of commercial lands, 10 million acres of agricultural lands, and 6.5 million acres of woodland and marshland. The area subject to flooding by the project flood assuming no protective works is 22.7 million acres. The area that will be provided complete protection by the completed project is 15.1 million acres.

The maximum flood of record was the 1927 flood which overflowed about 26,000 square miles, caused the deaths of 214 people, rendered 637,000 people temporarily homeless, and caused property damages of $347.0 million. This would be equivalent to $10.5 billion damages in 2000 prices.

The next flood of magnitude was the 1973 flood which overflowed 16,875 square miles (10.8 million acres), caused the death of 28 people, and displaced approximately 45,300 persons. The deaths and displacements of persons would have been significantly higher without the project in place. Without Federal projects, approximately 19.8 million acres would have been inundated. Total damages with existing projects in operation were $643 million (1973 price levels). Damages without projects would have been $11.3 billion and total damages prevented by projects amounted to $10.6 billion. Expressed in 2000 prices, damages without the projects would have been $38.2 billion and damages prevented would have been $35.8 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual benefits for the composite of Main Stem features are as follows:

Annual Benefits	Amount
Flood Control	$2,734,073,000
Navigation	884,704,000
Area Redevelopment	3,132,000
Recreation	3,434,000
Total	$3,625,343,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue:	
Lands and Damages	$ 3,015,000
Cultural Resources Preservation	2,300,000
Miscellaneous Relocations	350,000
Miscellaneous Hired Labor	103,000
Hillhouse, MS, Relief Wells	2,248,000
Caruthersville, MO, Berm	2,604,000
Willow Point-Youngs Point, LA, Item 461-R	1,919,000
Valewood-Carlisle, MS, Item 496-L	9,000,000
Wilson Point-Point Lookout, LA, Item 480-R	2,200,000
Wilson Point-Point Lookout, LA, Item 485-R	2,200,000
Complete:	
Blue Lake, AR, Seepage Control	1,104,000
Island 8, KY, Seepage Control	2,974,000
Harmon, MO, Culvert	2,000,000
Below Commerce, MO, Relief Wells, Parcel 3	1,326,000
Wilson Point-Point Lookout, LA, Item 483-R	44,000
Wilson Point-Point Lookout, LA, Item 487-R	537,000
Carolina-Valewood, MS, Item 502-L(2)	620,000
Planning, Engineering and Design	6,801,000
Supervision and Administration	2,112,000
Total	$43,457,000

NON-FEDERAL COST: In accordance with the Flood Control Acts of 1928, 1936, 1938, 1941, 1946, 1950, 1954, 1962, 1965, 1968 and PL 92-222, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$70,504,000	
Minor maintenance of all flood control works after their completion, except controlling and regulating spillway structures, including special relief levees; maintenance includes normally such matters as cutting grass, removal of weeds, local drainage and minor repairs to mainline river levees.		$1,075,000
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	2,374,000	141,900
Other (levee and revetment construction)	322,000	
Total Non-Federal Costs	$73,200,000	$1,216,900

STATUS OF LOCAL COOPERATION: It is estimated that local interests had spent approximately $292,000,000 for flood protection prior to the Act of 15 May 1928. After passage of the Act, the 37 levee districts along the Mississippi River adopted resolutions assuring the United States that the requirements of local cooperation will be met. These local interests have acquired all rights-of-way for work completed and underway and will try to provide the rights-of-way for work scheduled for Fiscal Year 2002. Some levee boards are having difficulty in providing right-of-way when requested, even for construction work in areas where the existing levees are farthest below the authorized grade. Supplemental assurances covering the requirements of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970 (PL 91-646) have been accepted for Main Stem Mississippi River Levees in Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri, and Tennessee.

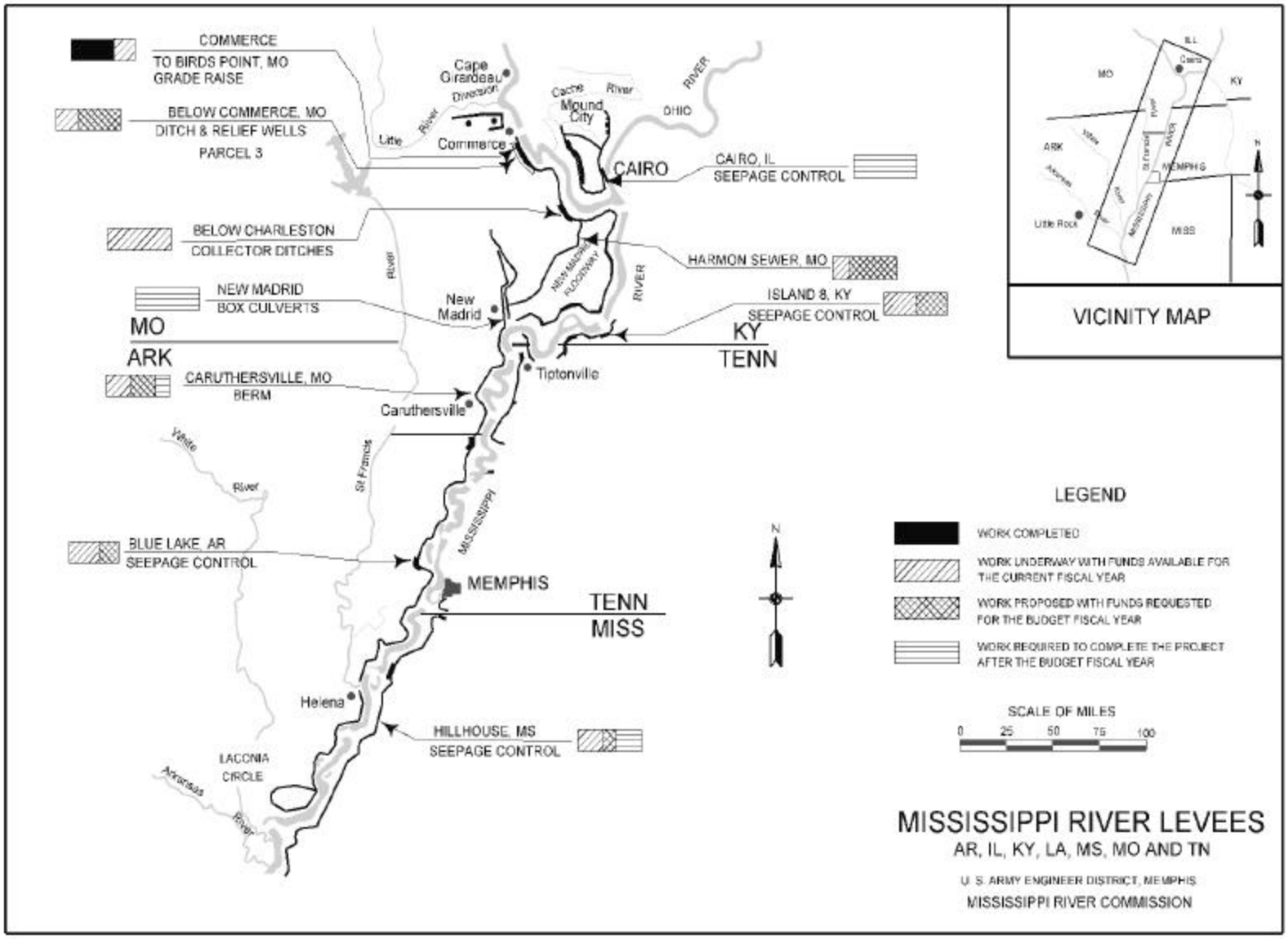
Assurances of local cooperation for the recreation facilities at Warfield Point, Mississippi, were accepted on 14 October 1969. Supplemental assurances covering the River and Harbor Act of 1970 (PL 91-611) and PL 91-646 were accepted 7 August 1972. Assurances have not as yet been requested for the recreation facilities at Mississippi River State Park, Arkansas.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $2,106,000,000 is a decrease of $11,000,000 from the latest estimate ($2,117,000,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ -55,648,000
Post Contract Award and Other Estimating Adjustments	8,954,000
Price Escalation on Real Estate	35,694,000
Total	$-11,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with the Council on Environmental Quality on 16 April 1976. A Supplemental Environmental Impact Statement for the project has been completed and the Record of Decision was signed on 5 October 1998.
The adequacy of the Supplemental Environmental Impact Statement was challenged but upheld by the United States District Court for the Eastern District of Louisiana on September 8, 1999. Plaintiffs appealed the decision to the Fifth Circuit Court of Appeals on November 3, 1999. Oral arguments in the appeal were held on August 9, 2000. The Fifth Circuit Court of Appeals on October 23, 2000, affirmed the district court's grant of summary judgment to the Government. The Fifth Circuit found that the SEIS's cumulative impacts, mitigation and selected alternatives analysis satisfied the National Environmental Policy Act's requirements. The time period for all further appeals or requests for reconsideration elapsed in January 2001.

OTHER INFORMATION: Initial construction funds were appropriated in Fiscal Year 1928.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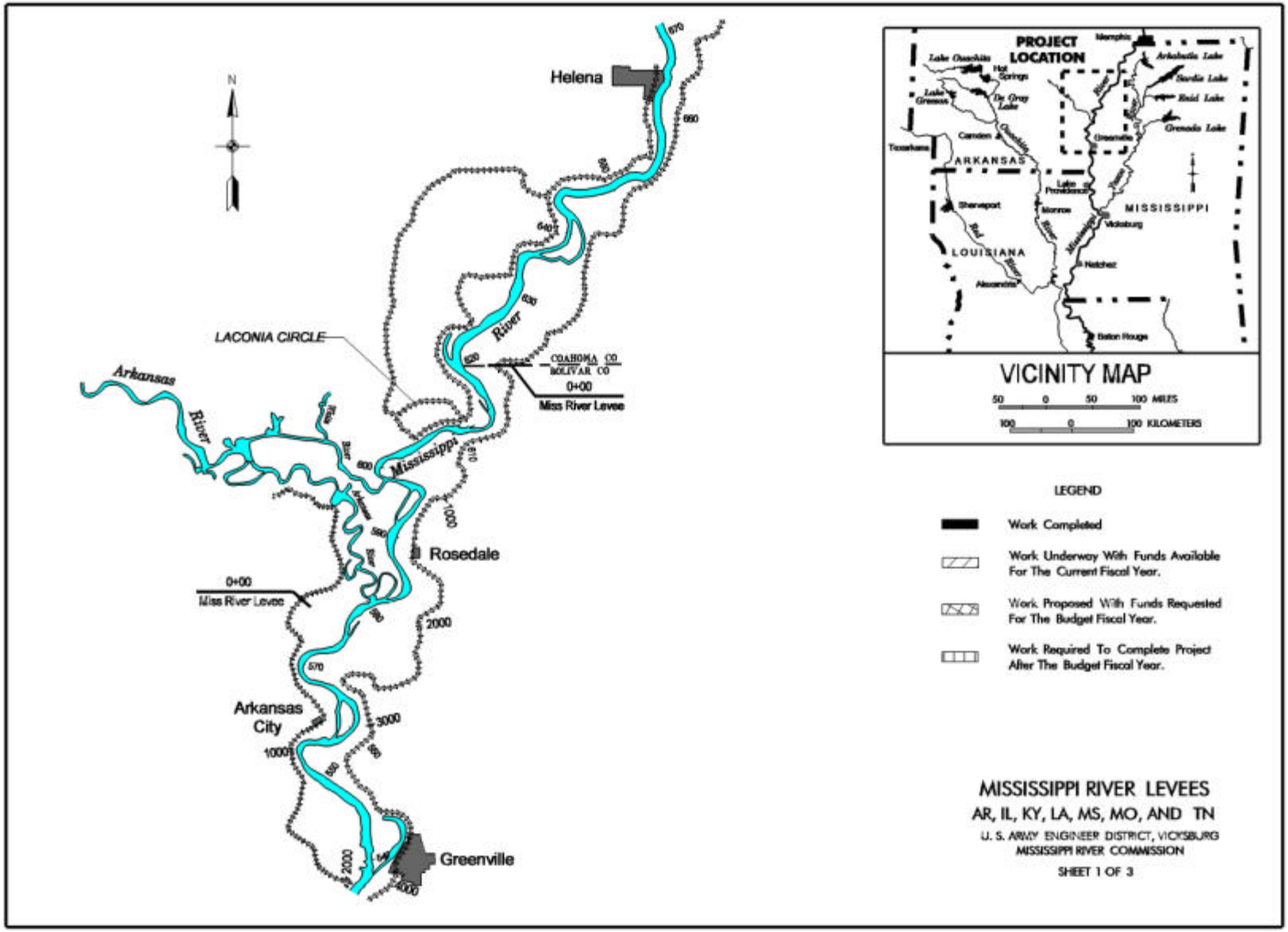
GRADE RAISE
BELOW COMMERCE, MO
DITCH & RELIEF WELLS
PARCEL 3
BELOW CHARLESTON
COLLECTOR DITCHES
NEW MADRID
BOX CULVERTS
MO
ARK
CARUTHERSVILLE, MO
BERM
BLUE LAKE, AR
SEEPAGE CONTROL
Cape Girardeau
Diversion
Little
River
Commerce
Cache
River
Mound City
OHIO
RIVER
CAIRO
CAIRO, IL
SEEPAGE CONTROL
HARMON SEWER, MO
ISLAND 8, KY
SEEPAGE CONTROL
KY
TENN
New Madrid
NEW MADRID FLOODWAY
Tiptonville
Caruthersville
Vente
River
St Francis
MISSISSIPPI
MEMPHIS
TENN
MISS
Helena
HILLHOUSE, MS
SEEPAGE CONTROL
LACONIA
CIRCLE
Arkansas
River
N
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
SCALE OF MILES
0 25 50 75 100
MISSISSIPPI RIVER LEVEES
AR, IL, KY, LA, MS, MO AND TN
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION
VICINITY MAP
MO
KY
ARK
MEMPHIS
Little Rock
MISS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Arkansas
River
Mississippi
River
COAHOMA CO
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Miss River Levee
Rosedale
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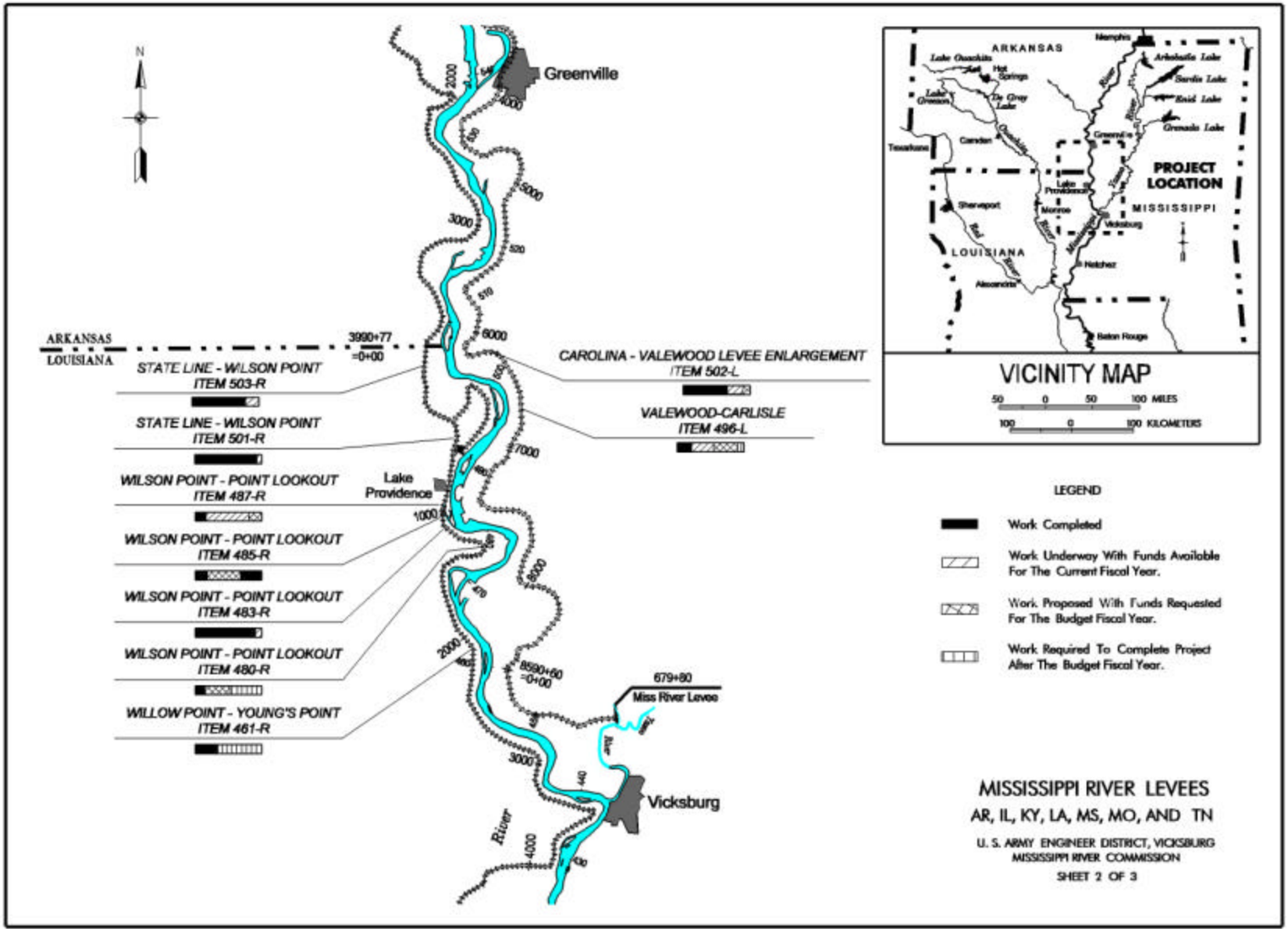
Arkansas City
Greenville
PROJECT LOCATION
ARKANSAS
MISSISSIPPI
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
MISSISSIPPI RIVER LEVEES
AR, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 1 OF 3


Greenville
ARKANSAS
LOUISIANA
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STATE LINE - WILSON POINT
ITEM 503-R
STATE LINE - WILSON POINT
ITEM 501-R
WILSON POINT - POINT LOOKOUT
ITEM 487-R
WILSON POINT - POINT LOOKOUT
ITEM 485-R
WILSON POINT - POINT LOOKOUT
ITEM 483-R
WILSON POINT - POINT LOOKOUT
ITEM 480-R
WILLOW POINT - YOUNG'S POINT
ITEM 461-R
Lake Providence
CAROLINA - VALEWOOD LEVEE ENLARGEMENT
ITEM 502-L
VALEWOOD-CARLISLE
ITEM 496-L
8590+60
=0+00
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Miss River Levee
Vicksburg
River
PROJECT LOCATION
MISSISSIPPI
VICINITY MAP
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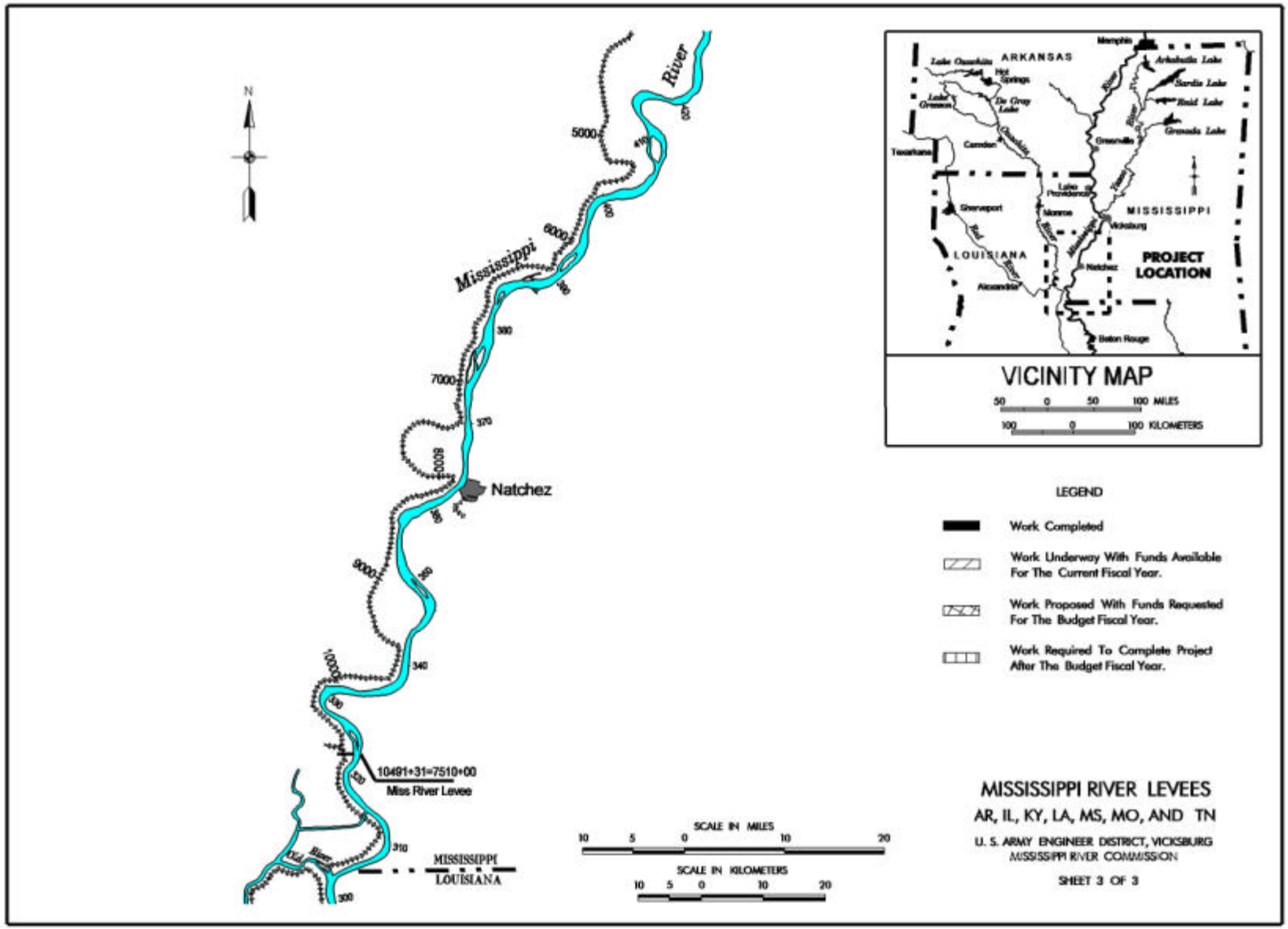
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
MISSISSIPPI RIVER LEVEES
AR, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 2 OF 3


Mississippi
River
Natchez
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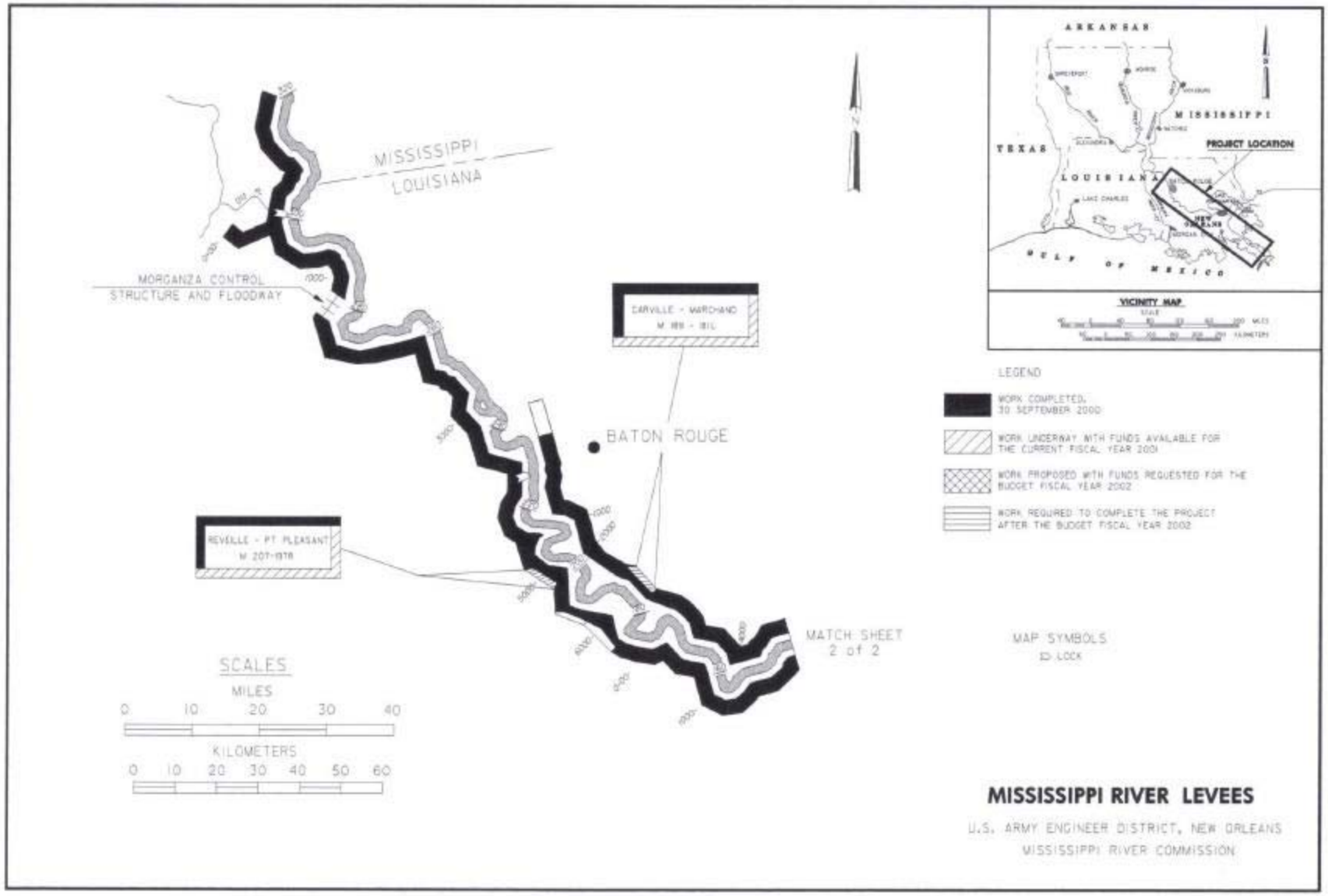
Miss River Levee
MISSISSIPPI
LOUISIANA
SCALE IN MILES
SCALE IN KILOMETERS
VICINITY MAP
ARKANSAS
LOUISIANA
MISSISSIPPI
PROJECT LOCATION
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
MISSISSIPPI RIVER LEVEES
AR, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 3 OF 3


MISSISSIPPI
LOUISIANA
MORGANZA CONTROL
STRUCTURE AND FLOODWAY
BATON ROUGE
MATCH SHEET
2 of 2
SCALES
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0 10 20 30 40 50 60
ARKANSAS
TEXAS
LOUISIANA
MISSISSIPPI
PROJECT LOCATION
GULF OF MEXICO
VICINITY MAP
LEGEND
WORK COMPLETED, 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
MAP SYMBOLS
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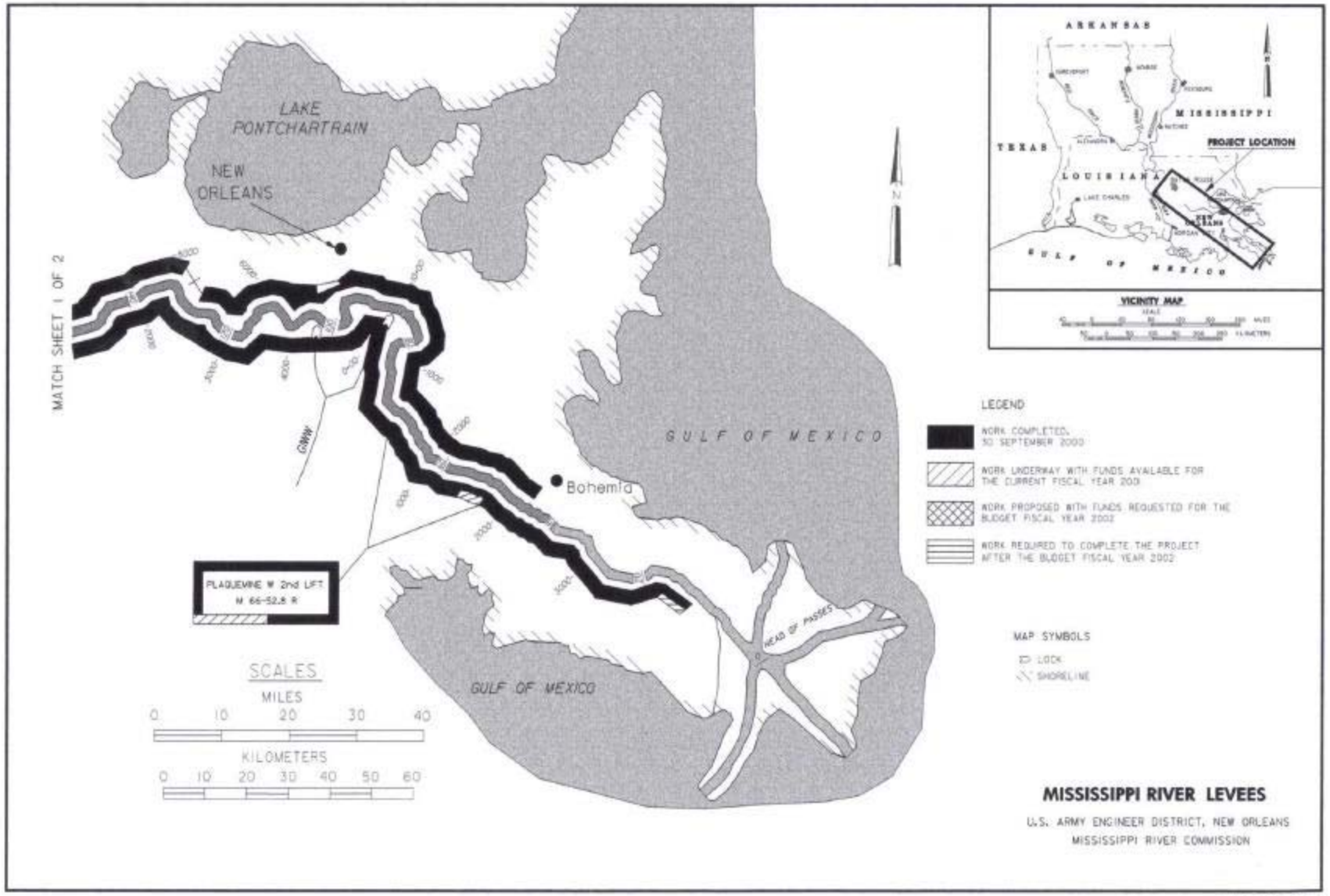
MISSISSIPPI RIVER LEVEES
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION
SHEET 1 OF 2


LAKE PONTCHARTRAIN
NEW ORLEANS
MATCH SHEET 1 OF 2
GIWW
Bohemia
GULF OF MEXICO
GULF OF MEXICO
HEAD OF PASSES
PLAQUEMINE W 2nd LIFT
M 66-52.8 R
SCALES
MILES
0 10 20 30 40
KILOMETERS
0 10 20 30 40 50 60
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
PROJECT LOCATION
GULF OF MEXICO
VICINITY MAP
LEGEND
WORK COMPLETED, 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
MAP SYMBOLS
LOCK
SHORELINE
MISSISSIPPI RIVER LEVEES
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION

SHEET 2 OF 2

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Construction

PROJECT: Channel Improvement, Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri and Tennessee (Continuing)

LOCATION: The project is located in the Mississippi River and along its banks from the vicinity of Cairo, Illinois, to the Head of Passes, Louisiana, a distance of approximately 966 miles.

DESCRIPTION: The plan of improvement consists of stabilizing the banks of the river in a desirable alignment and obtaining the most efficient flow characteristics for it for flood control and navigation by means of revetments, dikes, foreshore protection, and improvement dredging. All work is programmed.

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1938, 1941, 1944, 1962, 1965, 1966, and 1970.

REMAINING BENEFIT-REMAINING COST RATIO: 36.6 to 1 at 2-1/2 percent. The benefit-cost ratio is based on all features which comprise the Main Stem system of the Mississippi River and Tributaries project.

TOTAL BENEFIT-COST RATIO: 7.9 to 1 at 2-1/2 percent.

INITIAL BENEFIT-COST RATIO: This project feature of the Main Stem system was authorized in Fiscal Year 1928 and initial construction funds were provided in Fiscal Year 1928. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the Main Stem system. The benefit-cost ratio for the Main Stem components computed for the base estimate was 7.9 to 1.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in October 1979 at 1979 price levels. The latest comprehensive analysis was conducted in 1974. The 1979 analysis is the same as the 1974 analysis except that certain undocumented benefit categories were eliminated and 1979 prices were used.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$3,863,000,000		Entire Project	92	Being determined
Estimated Non-Federal Cost		$ 1,900,000				
Cash Contributions	$1,800,000					
Other Costs	100,000					
Total Estimated Project Cost		$3,864,900,000		PHYSICAL DATA		
Allocations to 30 September 2000		$2,565,734,000		Lands and Damages		19,135 acres
Conference Allowance for FY 2001		35,690,000		Revetments		1,085 miles
Allocation for FY 2001		36,866,000[1]		Dikes		339 miles
Allocations through FY 2001		2,602,600,000	67	Dredging		As required
				Foreshore Protection		160 miles
Allocation Requested for FY 2002		$ 43,405,000	68	Pumping Station		1
Programmed Balance to Complete After FY 2002		1,216,995,000				
Unprogrammed Balance to Complete After FY 2002		0				

[1] Reflects $1,799,000 reduction assigned as savings and slippage, $3,050,000 reprogrammed to the project, and $75,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The Channel Improvement Project is one of several Main Stem components, which together comprise the plan of improvement for the control of floods on the Mississippi River. The components are: Mississippi River Levees, Channel Improvement, South Bank Arkansas and South Bank Red River Levees, the Atchafalaya Basin, Atchafalaya Basin Floodway System, Old River, and a few miscellaneous items. Because the benefits of Channel Improvement derive from the way in which they operate together with the Main Stem components when the Mississippi River floods, the benefit-cost ratio is a composite one that covers the entire plan.

The Mississippi River, with a drainage area of about 1,245,000 square miles, has a wide range of flow, increasing from an approximate minimum of 90,000 cubic feet per second (675,000 gallons per second) to a maximum of 2,345,000 cubic feet per second (17,587,000 gallons per second) which occurred in 1927 at the latitude of Red River Landing. The project flood is 3,030,000 cubic feet per second (22,500,000 gallons per second). Part of the tremendous energy of this volume of flowing water is directed toward a relentless attack on the banks of the river, causing the unprotected banks to cave into the river. As this caving progresses, the attack becomes more direct, the bendway moves in toward the levee, and more sediment is placed in the river and deposited downstream in the form of a sandbar. This bar gradually builds out into the channel and deflects the river's attack to the opposite bank. As the cycle is repeated the river tends to meander and lengthen. Revetment is placed against the banks of the river at locations where mainline levees are being threatened with destruction or where unsatisfactory alignment and channel conditions are developing. Revetment serves a three-fold purpose in that the river is prevented from encroaching on the Main Stem levees, excess material is kept out of the stream, and a favorable channel alignment and depth are maintained. An objective of the plan is to preserve favorable alignments and efficient cross-sectional areas and to prevent the river from creating new meander patterns. In wide reaches of the river, dikes are used to contract the channel width so as to produce a single efficient channel for navigation and to insure the flood carrying capacity of the river. Chutes and secondary channels are controlled for the same purpose. Improvement dredging is employed to assist the river in removing natural obstructions which deflect the current into undesirable patterns of flow and to assist in developing an efficient channel. Foreshore protection is utilized to preserve the integrity of the Mississippi River Levees from attack by erosion of the batture. Erosion of the batture leads to steep slopes which, when undermined, result in considerable loss of batture and possible failure of the levee.

The value of lands and improvements protected by the Main Stem System authorized works against the design flood is $139.4 billion in 2000 dollars. This consists of 226,000 residential acres which include the City of New Orleans, 45,000 acres of commercial lands, 10 million acres of agricultural lands, and 6.5 million acres of woodland and marshland. The area subject to flooding by project flood assuming no protective works is 22.7 million acres. The area that will be provided complete protection by the completed project is 15.1 million acres.

The maximum flood of record was the 1927 flood which overflowed about 26,000 square miles, caused the deaths of 214 people, rendered 637,000 people temporarily homeless, and caused property damages of $347.0 million. This would be equivalent to $10.5 billion in damages in 2000 prices.

The next flood of magnitude was the 1973 flood which overflowed 16,875 square miles (10.8 million acres), caused the death of 28 people, and displaced approximately 45,300 persons. The deaths and displacements of persons would have been significantly higher without the project in place. Without Federal projects, approximately 19.8 million acres would have been inundated. Total damages with existing projects in operation were $643 million (1973 price levels). Damages without projects would have been $11.3 billion and total damages prevented by projects amounted to $10.6 billion. Expressed in 2000 prices, damages without the projects would have been $38.2 billion and damages prevented would have been $35.8 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual benefits for the composite of Main Stem features are as follows:

Annual Benefits	Amount
Flood Control	$2,734,073,000
Navigation	884,704,000
Area Redevelopment	3,132,000
Recreation	3,434,000
Total	$3,625,343,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Revetments	$ 25,317,000
Dikes	18,088,000
Total	$ 43,405,000

Revetments: The planned program consists of items of work for which funds will be required as follows:

Lands and Damages	$ 90,000
Construction of Revetments	19,146,000
Cultural Resources	60,000
Planning, Engineering, and Design	5,507,000
Supervision and Administration	514,000
Total	$ 25,317,000

The items of revetment work are:	Approximate length in feet:
Cedar Point - Densford, TN	3,000
Bauxippi-Wyanoke, AR	3,000
Oldtown, AR	2,000
Mhoon Bend, MS	2,000
Lake Concordia, MS	1,860
Baleshed-Stack Island, MS-LA	2,140
Railroad Landing, MS	1,000
Arkansas City - Yellow Bend, AR	800
False Point, LA	500
Nestor, LA	2,100
Reinforcement	6,648

Dikes: The planned dike work consists of the following items:

Lookout Point, TN	$1,300,000
Big Island, AR	6,300,000
Cat Island, AR	500,000
Delta Point, LA	700,000
Vaucluse Bendway Weirs, AR, Phase I	2,020,000
Vaucluse Bendway Weirs, AR, Phase II	3,390,000
Anconia, AR	740,000
Lands and Damages	20,000
Cultural Resources	20,000
Planning, Engineering, and Design	2,248,000
Supervision and Administration	850,000
Total	$18,088,000

NON-FEDERAL COST: In accordance with Section 4 of the Flood Control Act of 1944, as amended by Section 207 of the Flood Control Act of 1962, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 100,000	
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, and replacement of recreation facilities.	1,800,000	$ 167,000
Total Non-Federal Costs	$ 1,900,000	$ 167,000

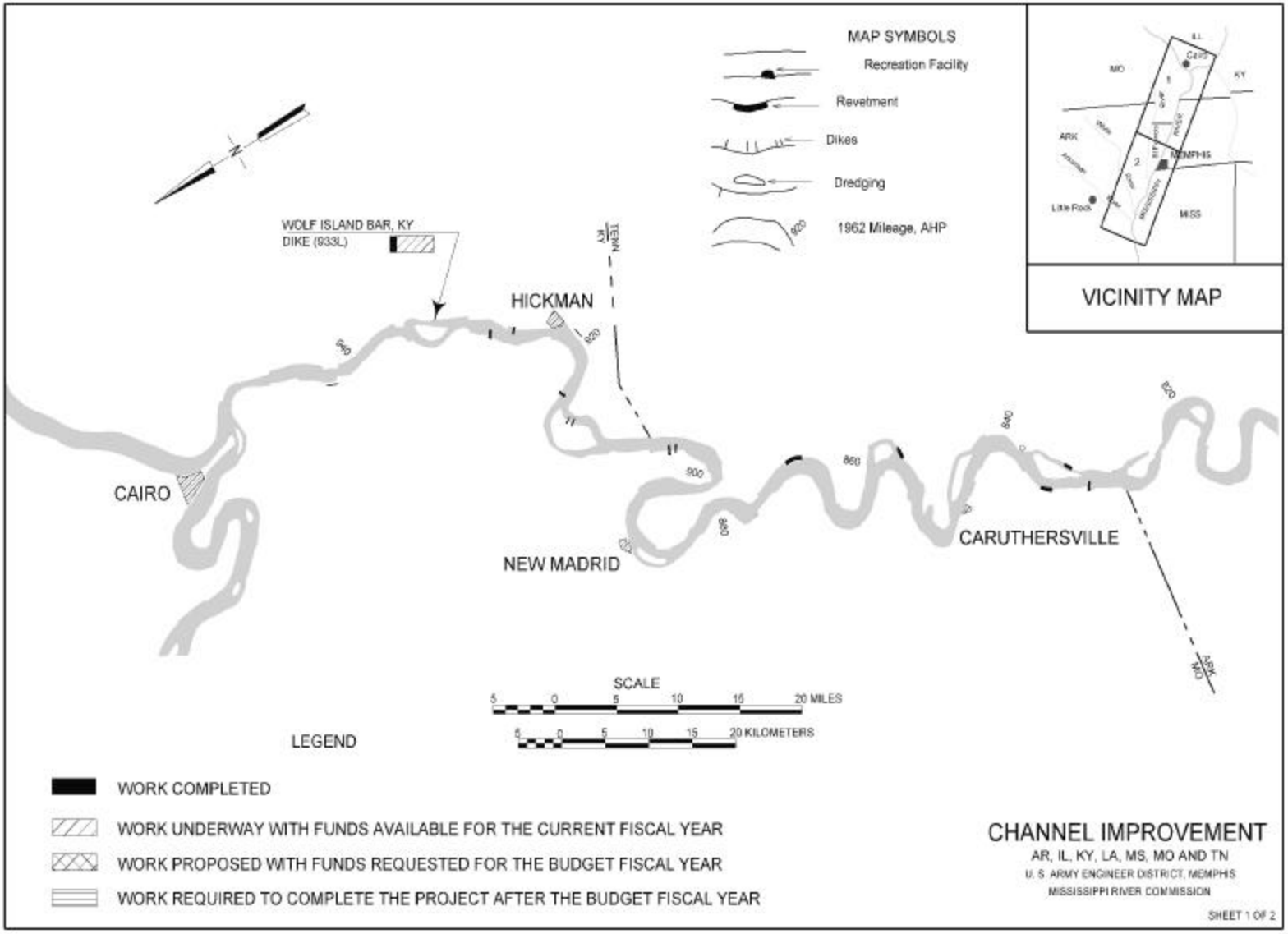
STATUS OF LOCAL COOPERATION: Assurances furnished by the Missouri Department of Conservation for the Dorena Recreation Facility were accepted 27 August 1971; assurances furnished by the Tennessee Department of Conservation for the Richardson Landing Recreation Facility were accepted 3 September 1976; and assurances furnished by the City of Memphis, Tennessee, for Volunteer Bicentennial Park were accepted 11 September 1975. Assurances furnished by the City of Osceola, Arkansas, for Lake Neark, Arkansas, are embodied in the contract for cost sharing approved on 19 September 1982. A Local Cooperation Agreement for the Ed Jones Boat Ramp with the State of Tennessee was signed 27 October 1988. A Local Cooperation Agreement for the Shelby Forest Boat Ramp with the State of Tennessee was signed 11 October 1990. A Local Cooperation Agreement for the Dyersburg, Tennessee, Boat Ramp with the State of Tennessee was signed 11 July 1994.

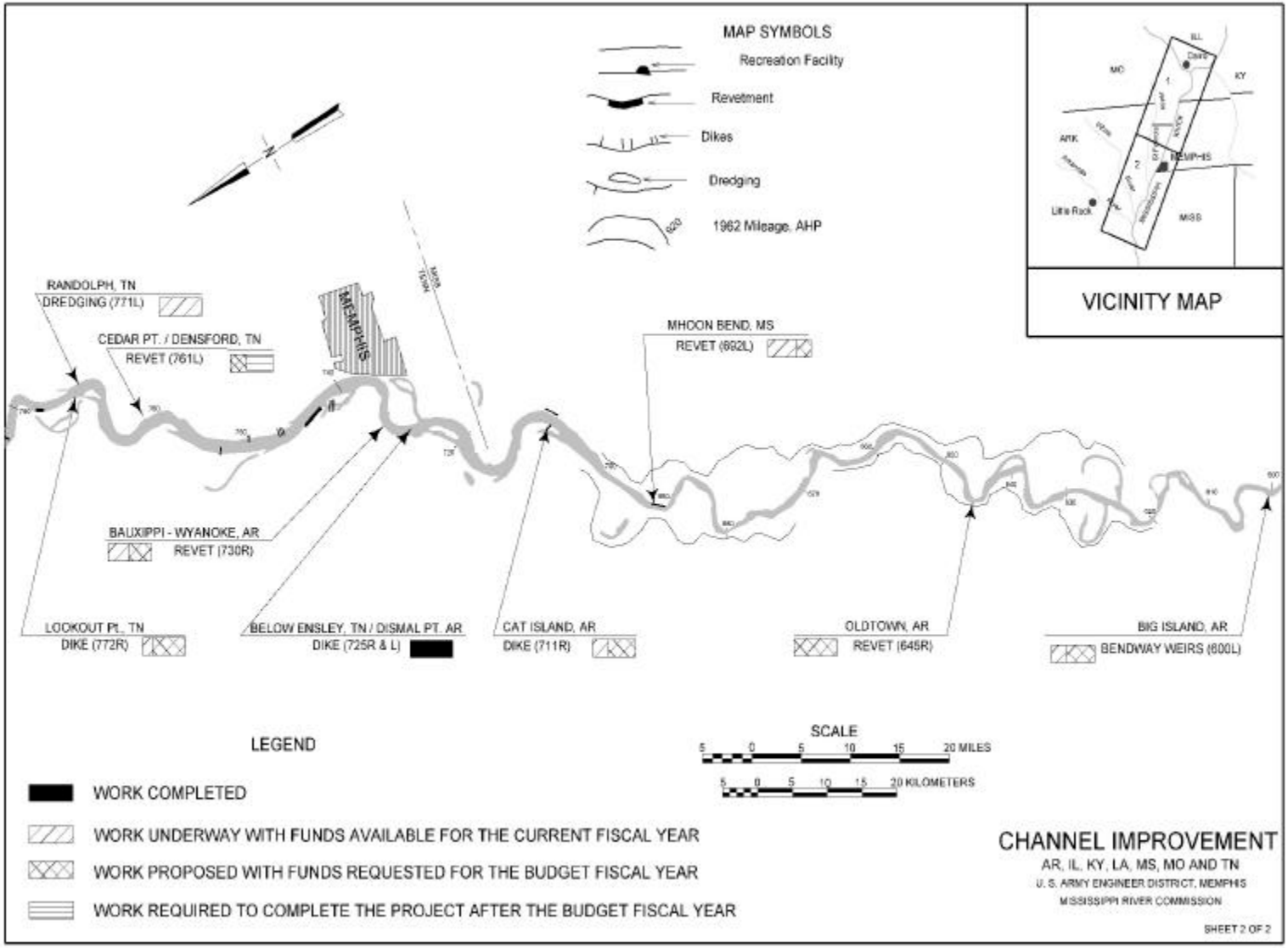
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $3,863,000,000 is an increase of $166,000,000 from the latest estimate ($3,697,000,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$120,228,000
Post Contract Award and Other Estimating Adjustments	45,553,000
Price Escalation on Real Estate	219,000
Total	$166,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with the Council on Environmental Quality on 16 April 1976.

OTHER INFORMATION: Initial construction funds were appropriated in Fiscal Year 1928.


MAP SYMBOLS
Recreation Facility
Revetment
Dikes
Dredging
1962 Mileage, AHP
VICINITY MAP
WOLF ISLAND BAR, KY
DIKE (933L)
HICKMAN
CAIRO
NEW MADRID
CARUTHERSVILLE
SCALE
20 MILES
20 KILOMETERS
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
CHANNEL IMPROVEMENT
AR, IL, KY, LA, MS, MO AND TN
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION
SHEET 1 OF 2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Recreation Facility
Revetment
Dikes
Dredging
1962 Mileage, AHP
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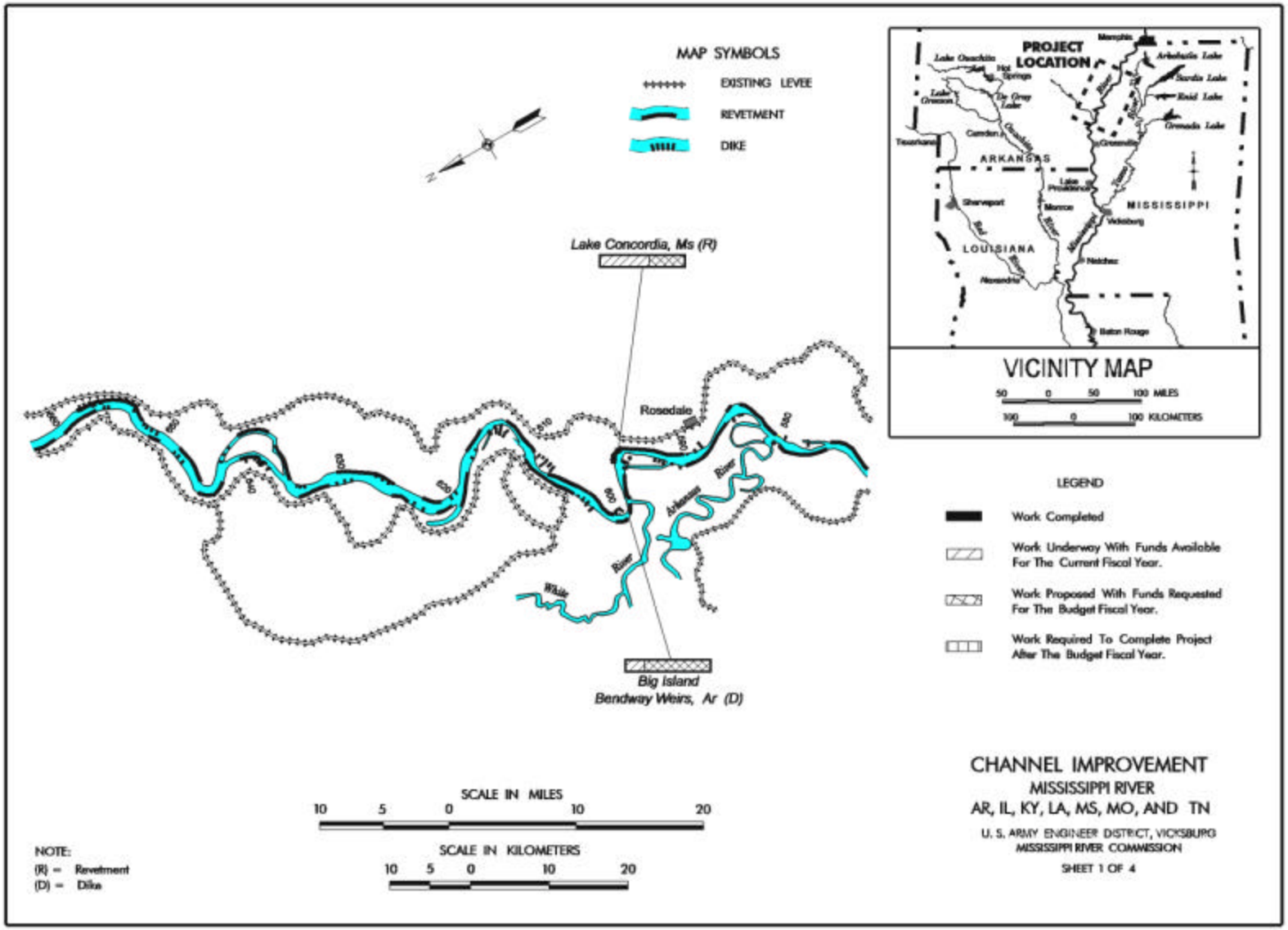
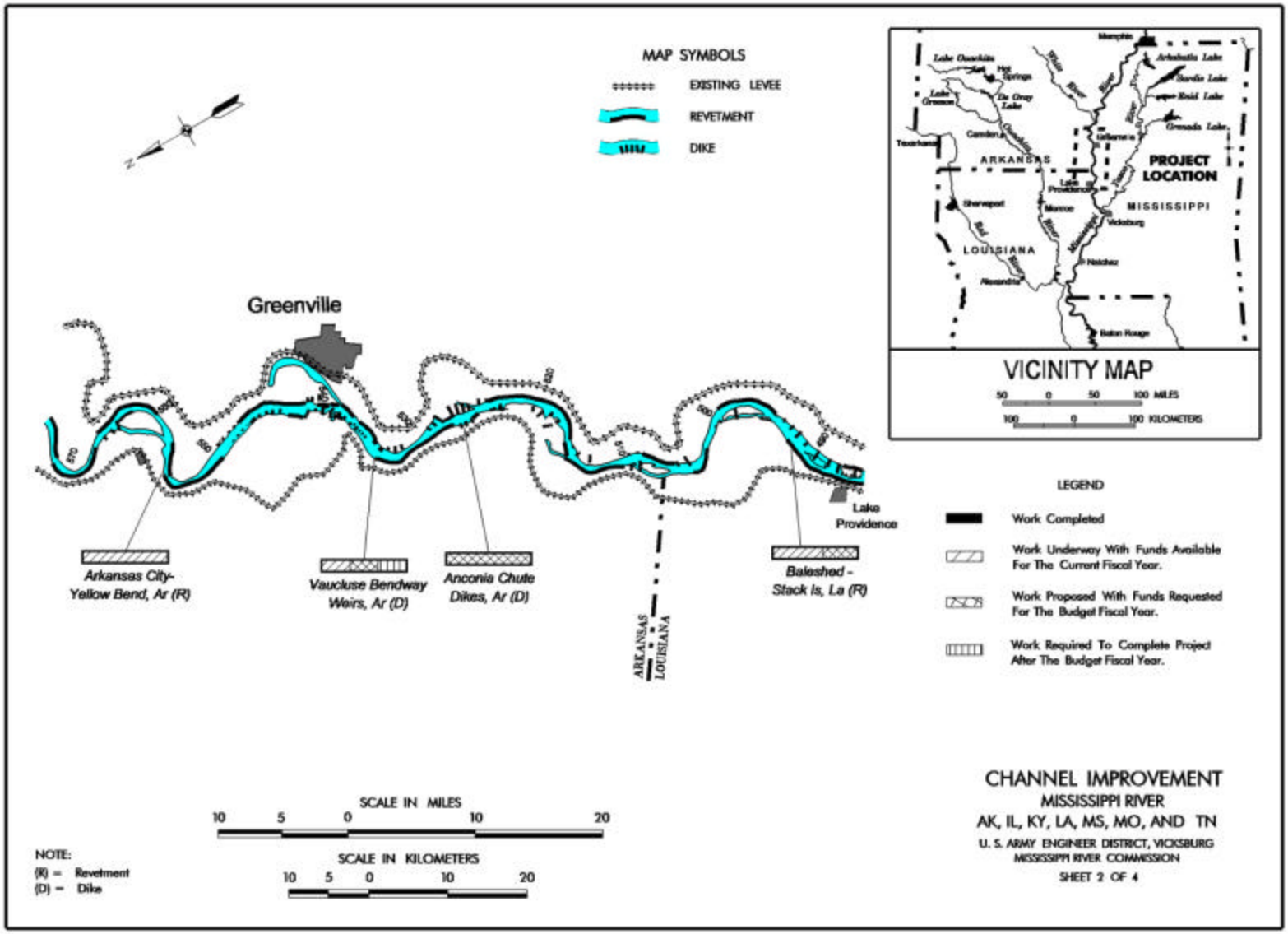
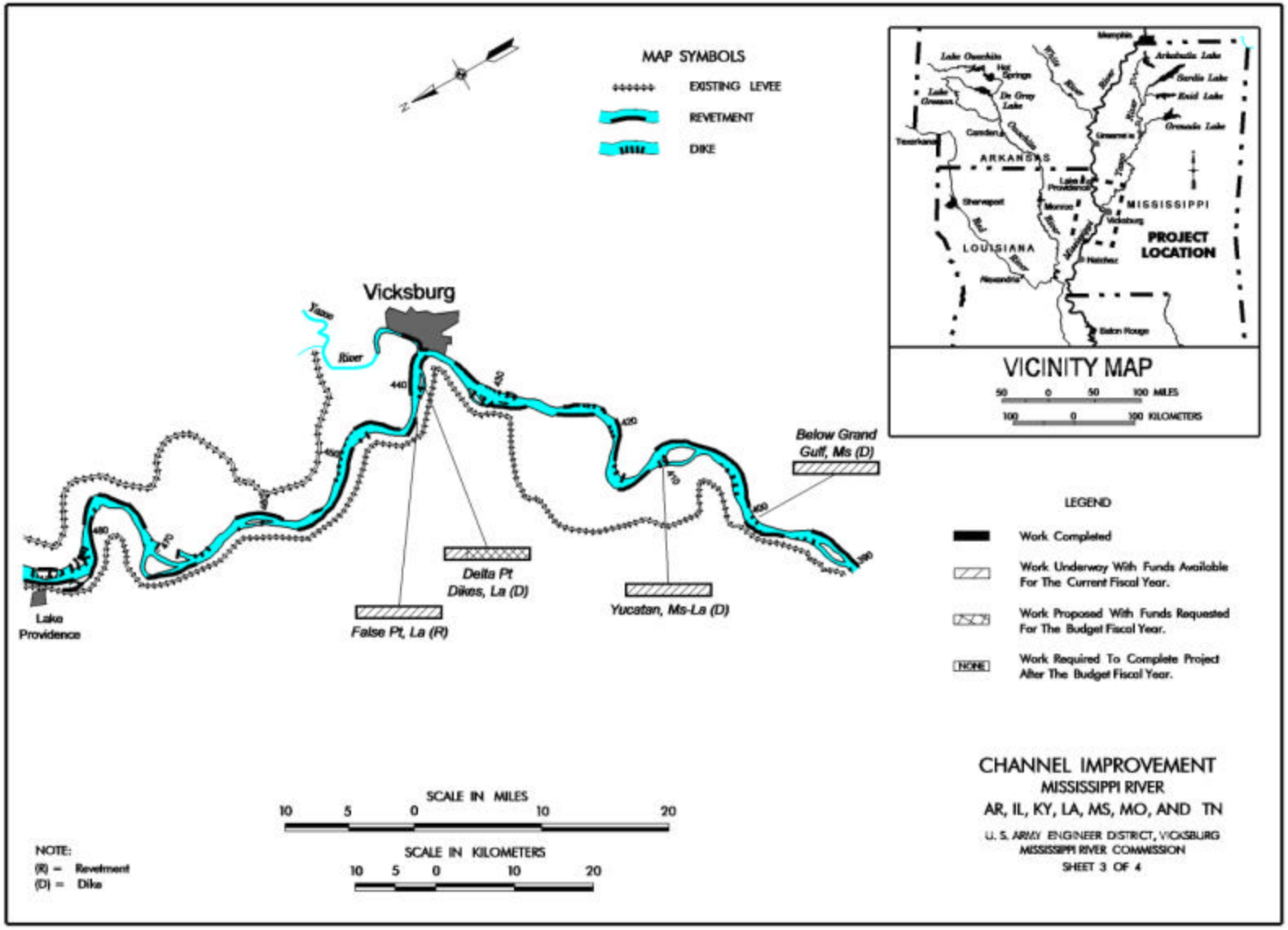
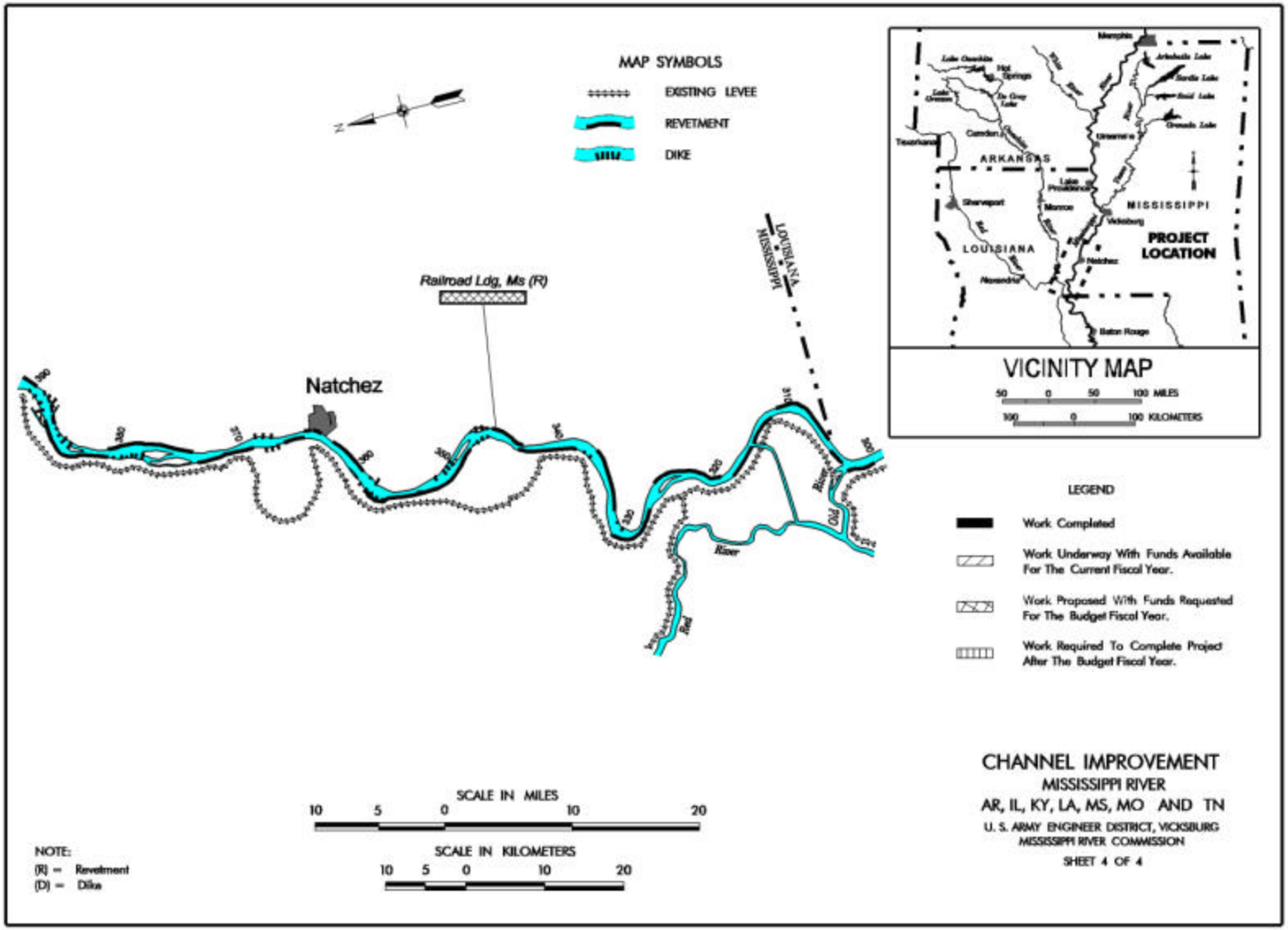
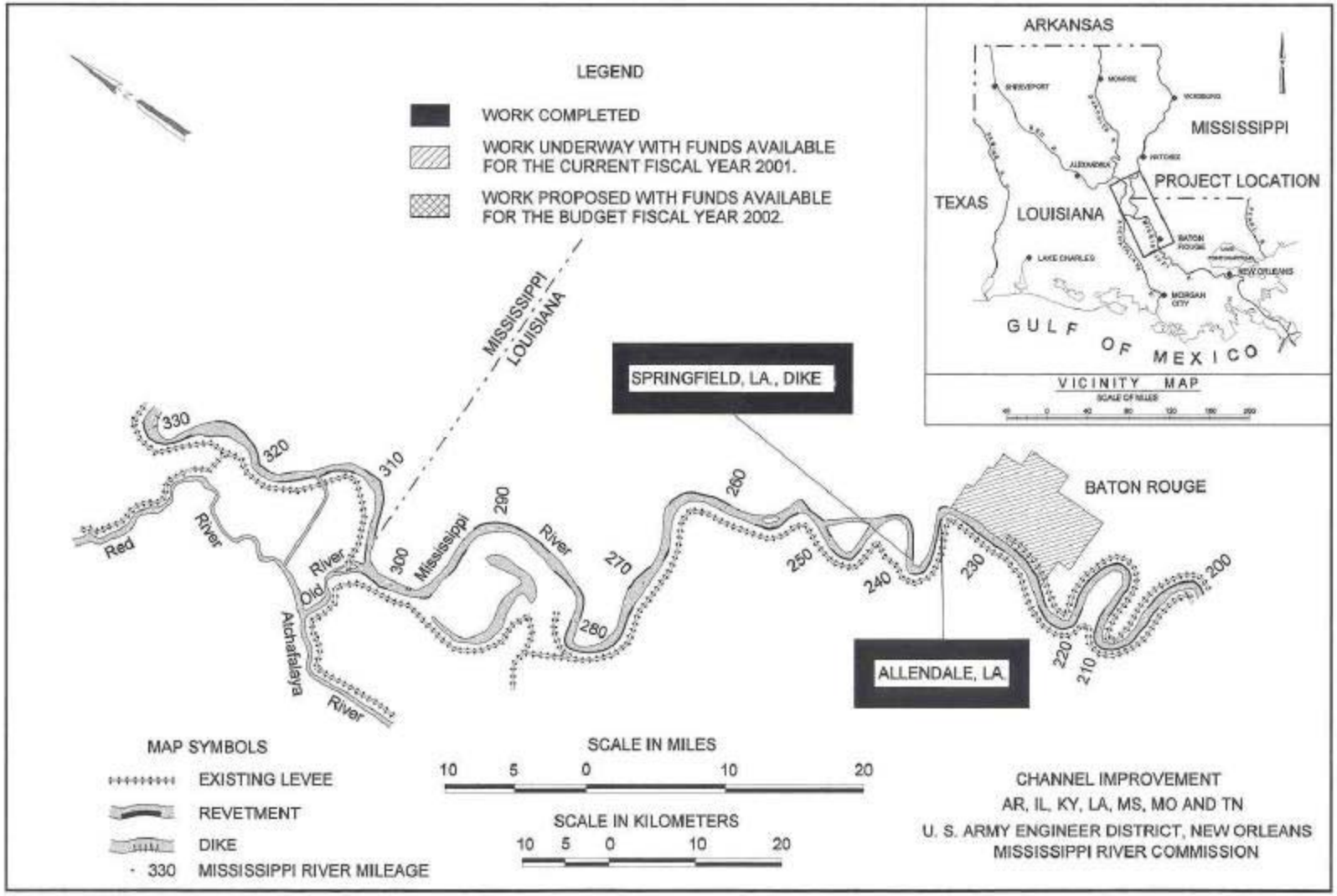
RANDOLPH, TN
DREDGING (771L)
CEDAR PT. / DENSFORD, TN
REVET (761L)
MEMPHIS
MHOON BEND, MS
REVET (692L)
BAUXIPPI - WYANOKE, AR
REVET (730R)
LOOKOUT Pt., TN
DIKE (772R)
BELOW ENSLEY, TN / DISMAL PT. AR
DIKE (725R & L)
CAT ISLAND, AR
DIKE (711R)
OLDTOWN, AR
REVET (645R)
BIG ISLAND, AR
BENDWAY WEIRS (600L)
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
SCALE
20 MILES
20 KILOMETERS
CHANNEL IMPROVEMENT
AR, IL, KY, LA, MS, MO AND TN
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION
SHEET 2 OF 2


MAP SYMBOLS
EXISTING LEVEE
REVETMENT
DIKE
Lake Concordia, Ms (R)
Rosedale
Big Island
Bendway Weirs, Ar (D)
Arkansas
River
White
River
PROJECT LOCATION
ARKANSAS
MISSISSIPPI
LOUISIANA
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
SCALE IN MILES
10 5 0 10 20
SCALE IN KILOMETERS
10 5 0 10 20
NOTE:
(R) = Revetment
(D) = Dike
CHANNEL IMPROVEMENT
MISSISSIPPI RIVER
AR, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 1 OF 4

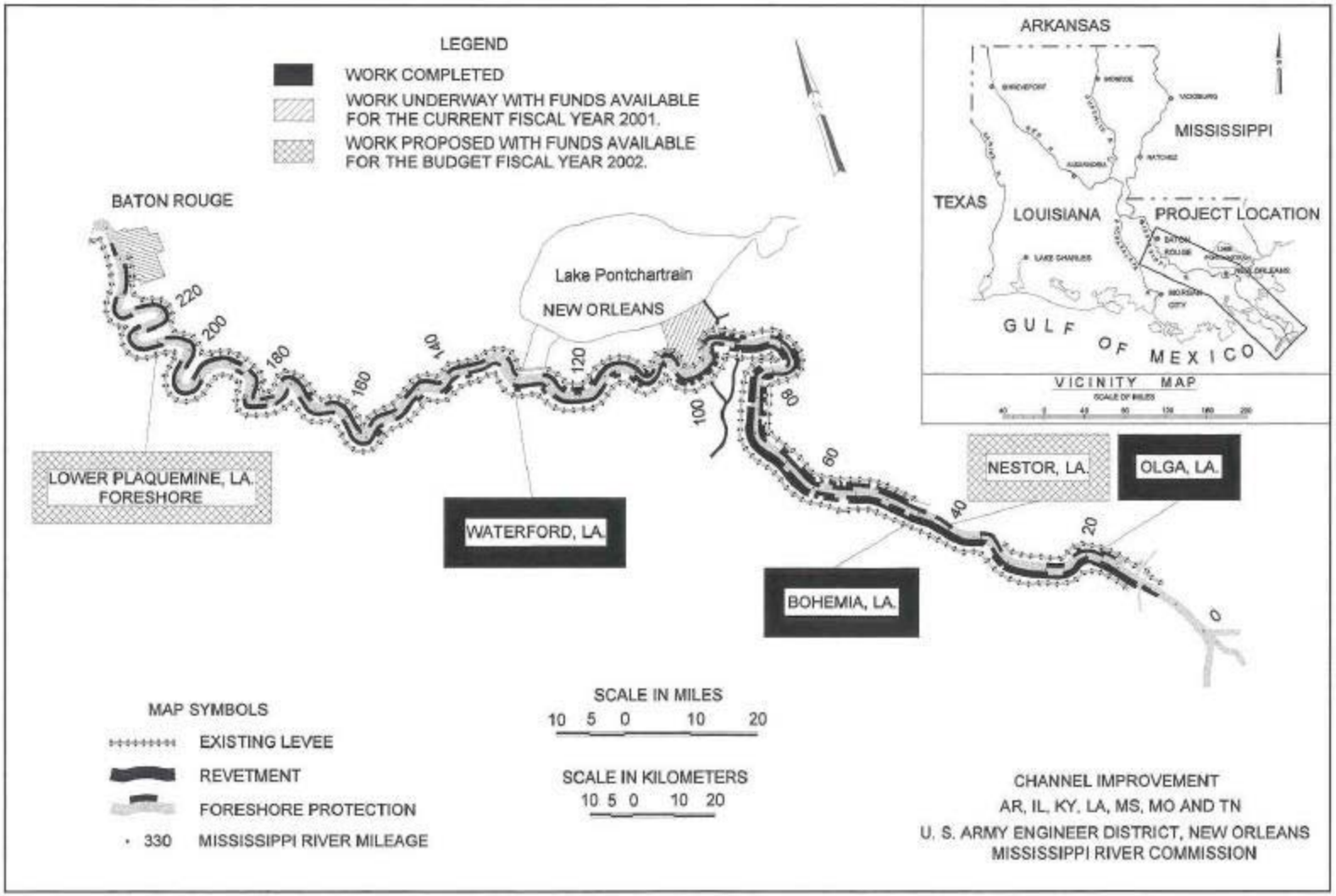

MAP SYMBOLS
EXISTING LEVEE
REVETMENT
DIKE
Greenville
Arkansas City-
Yellow Bend, Ar (R)
Vaucluse Bendway
Weirs, Ar (D)
Anconia Chute
Dikes, Ar (D)
Baleshed -
Stack Is, La (R)
Lake
Providence
ARKANSAS
LOUISIANA
VICINITY MAP
PROJECT
LOCATION
ARKANSAS
MISSISSIPPI
LOUISIANA
LEGEND
Work Completed
Work Underway With Funds Available
For The Current Fiscal Year.
Work Proposed With Funds Requested
For The Budget Fiscal Year.
Work Required To Complete Project
After The Budget Fiscal Year.
SCALE IN MILES
10 5 0 10 20
SCALE IN KILOMETERS
10 5 0 10 20
NOTE:
(R) = Revetment
(D) = Dike
CHANNEL IMPROVEMENT
MISSISSIPPI RIVER
AK, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 2 OF 4


MAP SYMBOLS
EXISTING LEVEE
REVETMENT
DIKE
Vicksburg
Yazoo
River
Lake Providence
False Pt, La (R)
Delta Pt Dikes, La (D)
Yucatan, Ms-La (D)
Below Grand Gulf, Ms (D)
VICINITY MAP
ARKANSAS
MISSISSIPPI
LOUISIANA
PROJECT LOCATION
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
NONE
SCALE IN MILES
SCALE IN KILOMETERS
NOTE:
(R) = Revetment
(D) = Dike
CHANNEL IMPROVEMENT
MISSISSIPPI RIVER
AR, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 3 OF 4


MAP SYMBOLS
EXISTING LEVEE
REVETMENT
DIKE
Railroad Ldg, Ms (R)
Natchez
LOUISIANA
MISSISSIPPI
Red
River
Old
River
VICINITY MAP
ARKANSAS
MISSISSIPPI
LOUISIANA
PROJECT LOCATION
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
SCALE IN MILES
10 5 0 10 20
SCALE IN KILOMETERS
10 5 0 10 20
NOTE:
(R) = Revetment
(D) = Dike
CHANNEL IMPROVEMENT
MISSISSIPPI RIVER
AR, IL, KY, LA, MS, MO AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 4 OF 4


LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001.
WORK PROPOSED WITH FUNDS AVAILABLE FOR THE BUDGET FISCAL YEAR 2002.
ARKANSAS
MISSISSIPPI
PROJECT LOCATION
TEXAS
LOUISIANA
GULF OF MEXICO
VICINITY MAP
MISSISSIPPI
LOUISIANA
SPRINGFIELD, LA., DIKE
BATON ROUGE
ALLENDALE, LA.
Red River
Old River
Atchafalaya River
Mississippi River
330
320
310
300
290
280
270
260
250
240
230
220
210
200
MAP SYMBOLS
EXISTING LEVEE
REVETMENT
DIKE
330 MISSISSIPPI RIVER MILEAGE
SCALE IN MILES
10 5 0 10 20
SCALE IN KILOMETERS
10 5 0 10 20
CHANNEL IMPROVEMENT
AR, IL, KY, LA, MS, MO AND TN
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION

SHEET 1 OF 2


LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001.
WORK PROPOSED WITH FUNDS AVAILABLE FOR THE BUDGET FISCAL YEAR 2002.
BATON ROUGE
Lake Pontchartrain
NEW ORLEANS
220
200
180
160
140
120
100
80
60
40
20
0
LOWER PLAQUEMINE, LA. FORESHORE
WATERFORD, LA.
BOHEMIA, LA.
NESTOR, LA.
OLGA, LA.
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
PROJECT LOCATION
GULF OF MEXICO
VICINITY MAP
MAP SYMBOLS
EXISTING LEVEE
REVETMENT
FORESHORE PROTECTION
330 MISSISSIPPI RIVER MILEAGE
SCALE IN MILES
10 5 0 10 20
SCALE IN KILOMETERS
10 5 0 10 20
CHANNEL IMPROVEMENT
AR, IL, KY, LA, MS, MO AND TN
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION

SHEET 2 OF 2

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Construction

PROJECT: Atchafalaya Basin, Louisiana (Continuing)

LOCATION: The project is located in south-central Louisiana below the latitude of Old River and west of and generally paralleling the Mississippi River. The Atchafalaya River flows through the middle of the basin.

DESCRIPTION: The plan of improvement consists of a leveed floodway about 15 miles wide and 110 miles long that extends generally from the latitude of Old River to the Gulf of Mexico. The upper half of the basin is divided by the leveed Atchafalaya River. The Morganza Floodway is to the east of the Atchafalaya River and has a capacity of 600,000 cubic feet per second, which is introduced into the floodway by a gated control structure. The West Atchafalaya Floodway, which is located to the west of the river, is placed into operation when the fuse plug sections are overtopped bringing flows from the river that will introduce 900,000 cubic feet per second into the lower basin. After passing through the floodways, the flood waters enter the Gulf of Mexico through the Lower Atchafalaya River at Morgan City and the Wax Lake Outlet channel constructed west of Patterson, Louisiana. The project is part of a system and all work is programmed.

AUTHORIZATION: Flood Control Acts of 1928, 1934, 1936, 1938, 1941, 1946, 1950, 1954.

REMAINING BENEFIT - REMAINING COST RATIO: 36.6 to 1 at 2-1/2 percent. The benefit-cost ratio is based on all features which comprise the Main Stem System of the Mississippi River and Tributaries project.

TOTAL BENEFIT - COST RATIO: 7.9 to 1 at 2-1/2 percent.

INITIAL BENEFIT - COST RATIO: This project feature of the Main Stem system was authorized in Fiscal Year 1928 and initial construction funds were provided in Fiscal Year 1928. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the Main Stem system. The benefit-cost ratio for the Main Stem components computed for the base estimate was 7.9 to 1.

BASIS OF BENEFIT - COST RATIO: Benefits are from latest available evaluation approved in October 1979 at 1979 price levels. The latest comprehensive analysis was conducted in 1974. The 1979 analysis is the same as the 1974 analysis except that certain undocumented benefit categories were eliminated and 1979 prices were used.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS: (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$1,790,000,000				
				Entire Project	93	Being determined
Estimated Non-Federal Cost		11,000,000				
Cash Contributions	$2,500,000					
Other Costs	8,500,000					
Total Estimated Project Cost		$1,801,000,000				
Allocations to 30 September 2000		$ 868,835,000				
Conference Allowance for FY 2001		26,000,000				
Allocation for FY 2001		21,635,000[1]				
Allocations through FY 2001		890,470,000	50			
Allocation Requested for FY 2002		$ 23,400,000	51			
Programmed Balance to Complete after FY 2002		876,130,000				
Unprogrammed Balance to Complete after FY 2002		0				

[1] Reflects $1,311,000 reduction assigned as savings and slippage, $3,000,000 reprogrammed from the project, and $54,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

PHYSICAL DATA

Levees:
- Average Height - 20 feet
- Length - 449 miles

Relocations:
- Roads - 15 miles
- Railroads - 20 miles

Drainage Structures:

Pointe Coupee	2 gates, 10.5 by 15 feet
Melville	2 - 72-inch corrugated metal pipe with vertical lift gate
Darbonne	10-foot by 10-foot barrel with vertical lift gate
Bayou des Glaises	72-inch corrugated metal pipe with flap gate
Bayou Courtableau	2 weirs, 503 feet long
Brushy Bayou	5-foot by 6-foot barrel with vertical lift gate
Bayou Courtableau	5-barrel, each 10 feet by 15 feet with vertical lift gate
Wax Lake East	25 pipes, 5 feet in diameter with slide gates
Wax Lake West	15 pipes, 5 feet in diameter with slide gates

Lands and Damages:
- 289,212 acres

Pumping Stations:
- Number - 11
- Capacity - Minimum - 50 cubic feet per second
  - Maximum - 1,500 cubic feet per second
  - Average - 400 cubic feet per second

Bank Stabilization:
- Length - 58 miles

Floodgates:
- Charenton - Sector-gated, 45 feet wide
- East Calumet - Sector-gated, 45 feet wide
- West Calumet - Sector-gated, 45 feet wide

Channels:
- Length: 147.1 miles

Locks:
- Bayou Boeuf, 75 feet by 1,156 feet, earth chamber
- Bayou Sorrel, 56 feet by 797 feet, earth chamber
- Berwick, 45 feet by 300 feet, concrete chamber

Atchafalaya River Navigation:
- New Channel-10.1 miles

Freshwater Control Structure:
- Sherburne - dual 10-foot by 10-foot reinforced concrete box culverts with gates
- Henderson - dual 10-foot by 10-foot reinforced concrete box culverts with gates

JUSTIFICATION: The Mississippi River below Morganza Floodway is capable of carrying 1,500,000 cubic feet per second without threatening the integrity of the lesser populated levees along its banks which protect densely populated areas, highly developed agricultural lands, industries, and the city of New Orleans, as well as a number of communities. Studies indicate that the project flood against which the flood control protection works are designed will be of such magnitude that 3,030,000 cubic feet per second will pass the latitude of Old River. Since the Mississippi River below the Morganza Floodway can carry only one-half this amount, the other one-half must be diverted from the main channel. The diversion is made through the Old River Control Structure, the Old River Auxiliary Structure, and the Atchafalaya River, and through the Morganza and West Atchafalaya Floodways. In order to prevent diverted waters from spreading over the rich and highly developed agricultural lands outside of the Atchafalaya Basin, these rivers and floodways have been leveed to confine the diverted flow. In order to eliminate unnecessary damage, it is essential that the work proceed as vigorously and as expeditiously as possible.

This floodway system is, for all practical purposes, a part of the main river system, in as much as the integrity of the main river system depends upon its utilization. Since this construction began, farms and industries have developed in the areas adjacent to the floodway with full confidence that they would receive protection. Therefore, overtopping or crevassing of the levees would cause far more damage than anticipated at the start of project construction. The main protection levees in the lower reaches are deficient because of consolidation of the soft underlying soils, especially those below the latitude of Krotz Springs, LA. Early construction of these levees to the approved grade is essential, not only for flood protection, but as a means of access for the movement of manpower and equipment to any spot threatened by floods.

The Atchafalaya Basin project is one of several Main Stem components, which together comprise the plan of improvement for the control of floods on the Mississippi River. The components are: Mississippi River Levees, Channel Improvement, South Bank Arkansas and South Bank Red River Levees, the Atchafalaya Basin, Atchafalaya Basin Floodway System, Old River, and a few miscellaneous items. Because the benefits of the Atchafalaya Basin derive from the way in which they operate together with the other Main Stem components when the Mississippi River floods, the benefit-cost ratio is a composite one that covers the entire plan.

The value of lands and improvements protected by authorized works against the design flood is $139.4 billion in 2000 dollars. This consists of 226,000 residential acres which include the City of New Orleans, 45,000 acres of commercial lands, 10 million acres of agricultural lands, and 6.5 million acres of woodland and marshland. The area subject to flooding by project flood assuming no protective works is 22.7 million acres. The area that will be provided complete protection by the completed project is 15.1 million acres.

The maximum flood of record was the 1927 flood which overflowed about 26,000 square miles, caused the deaths of 214 people, rendered 637,000 people temporarily homeless, and caused property damages of $347.0 million. This would be equivalent to $10.5 billion damages in 2000 prices.

The next flood of magnitude was the 1973 flood which overflowed 16,875 square miles (10.8 million acres), caused the death of 28 people, and displaced approximately 45,300 persons. The deaths and displacements of persons would have been significantly higher without the project in place. Without Federal projects, approximately 19.8 million acres would have been inundated. Total damages with existing projects in operation were $643 million (1973 price levels). Damages without projects would have been $11.3 billion and total damages prevented by projects amount to $10.6 billion. Expressed in 2000 prices, damages without the projects would have been $38.2 billion and damages prevented would have been $35.8 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual benefits for the composite of Main Stem features are as follows:

Annual Benefits	Amount
Flood Control	$2,734,073,000
Navigation	884,704,000
Area Redevelopment	3,132,000
Recreation	3,434,000
Total	$3,625,343,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue:	
Bank Stabilization	$ 5,402,000
East Bayou Sale Gordy Levee Enlargement	2,000,000
West Bayou Sale Maryland North Bend Levee Enlargement	2,082,000
Todd Levee Enlargement and Pump Station	1,800,000
Complete:	
Wax Lake East Drainage Structure	$ 300,000
W-46/W-64 Levee Enlargement, 2nd Lift	784,000
Lands and Damages	846,000
Surveys and Layouts	100,000
Planning, Engineering and Design	8,533,000
Supervision and Administration	1,553,000
Total	$23,400,000

NON-FEDERAL COST: In accordance with the Flood Control Act of 15 May 1928, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Bear the administrative costs for furnishing rights-of-way for levee and levee drainage construction; purchase maintenance equipment; and perform miscellaneous levee work.	$ 1,110,000	0
Agree to accept lands turned over to them under the provision of Section 4 of the Flood Control Act of 15 May 1928, and as provided in the Flood Control Act of 18 August 1941.	0	0
Bear costs for and maintain all flood control works after their completion, except controlling and regulating spillway structures, including special levees; maintenance includes normally such matters as cutting grass, removal of weeds, local drainage and minor repairs to the levees.	0	$3,700,000
For the Upper Point Coupee Loop Area, provide an interior drainage system and comply with the applicable provisions of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970, PL 91-646, approved 2 January 1971, and comply with the provision of Section 221 of the Flood Control Act of 1970, PL 91-611.	$ 7,390,000	0
The State of Louisiana, through the Department of Transportation and Development as the local sponsor, will provide a voluntary 25% cost share for the planning, design, and construction of the interim protection for floodproofing of riverfront businesses in Morgan City and Berwick.	2,500,000	0
Total Non-Federal Costs	$11,000,000	$3,700,000

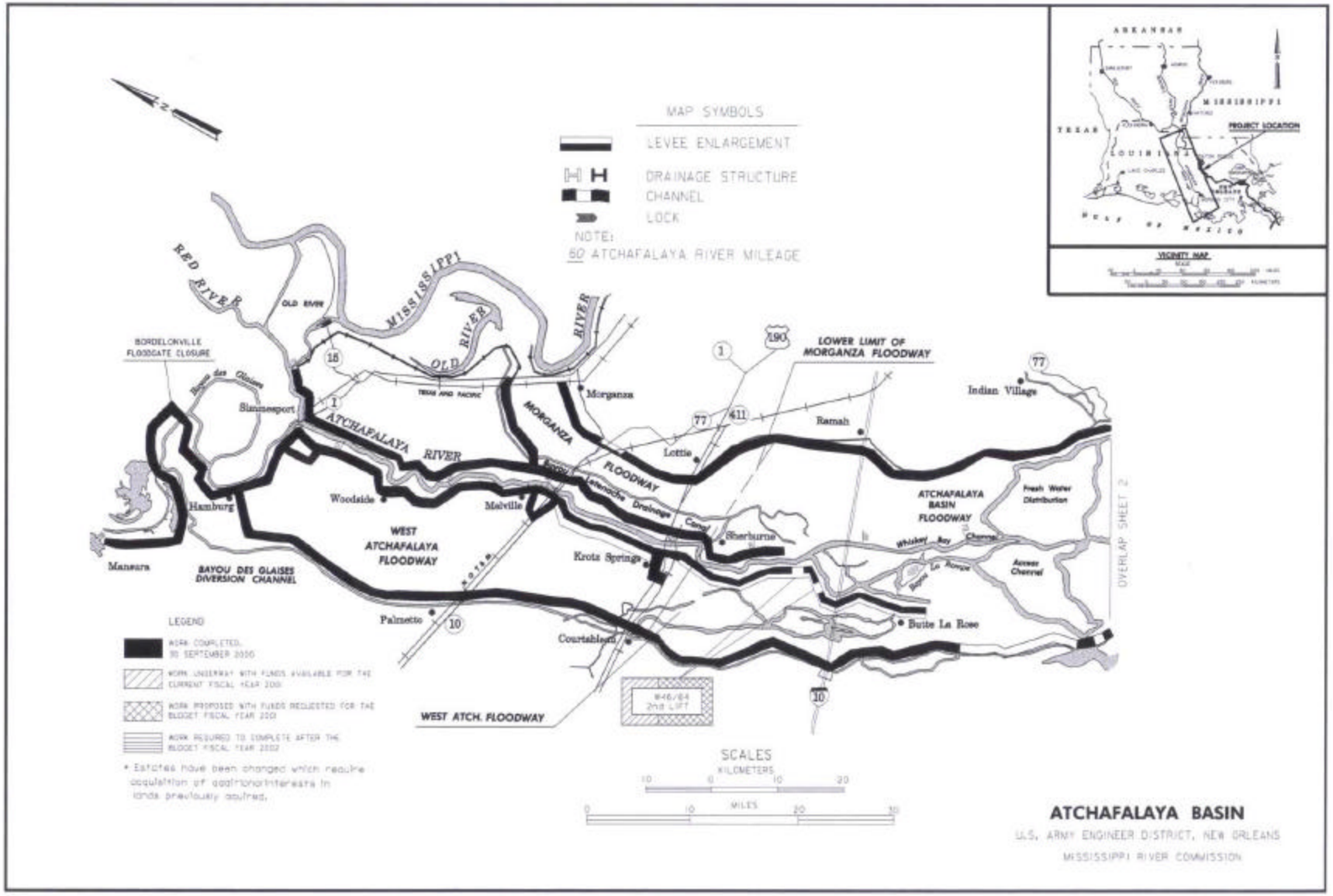
STATUS OF LOCAL COOPERATION: Necessary assurances for maintaining the project have been furnished by the Atchafalaya Basin Levee District; Red River, Atchafalaya and Bayou Boeuf Levee District; St. Mary Parish Government; Pointe Coupee Parish Police Jury; and the towns of Berwick and Morgan City, LA. These agencies are furnishing all requirements of local cooperation necessary for meeting present project schedules.

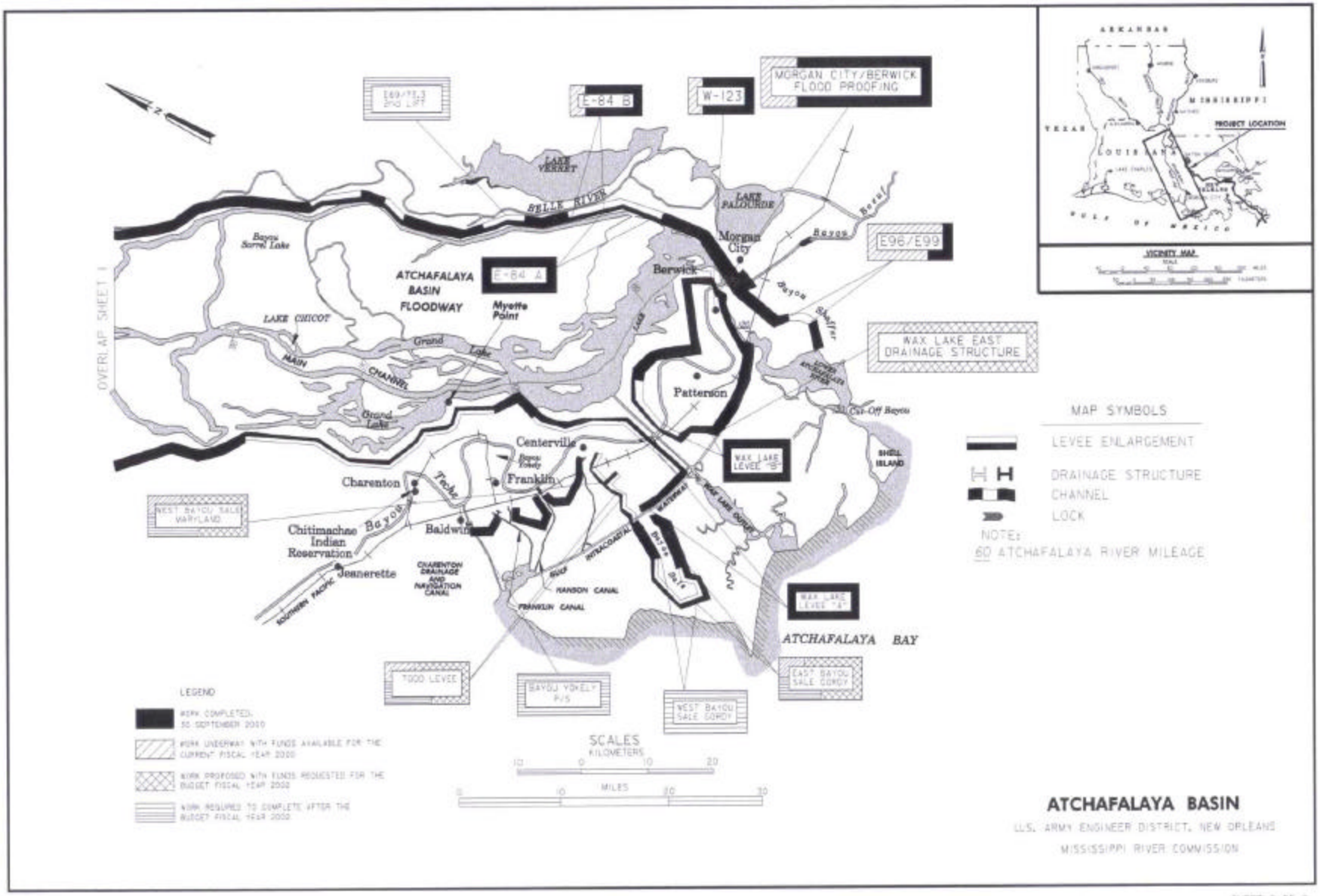
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $1,790,000,000 is a decrease of $80,000,000 from the latest estimate ($1,870,000,000) presented to Congress (Fiscal Year 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ -80,330,000
Design Changes	25,035,000
Post Contract Award and Other Estimating Adjustments	-25,035,000
Price Escalation on Real Estate	330,000
Total	$ -80,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency on 20 August 1982. The final Environmental Impact Statement for the Upper Pointe Coupe Loop Area was filed with the Council on Environment Quality on 11 June 1976.

OTHER INFORMATION: Funds to initiate construction were appropriated in 1928.


MAP SYMBOLS
LEVEE ENLARGEMENT
DRAINAGE STRUCTURE
CHANNEL
LOCK
NOTE:
60 ATCHAFALAYA RIVER MILEAGE
RED RIVER
OLD RIVER
MISSISSIPPI
OLD RIVER
RIVER
BORDELONVILLE FLOODGATE CLOSURE
Simmesport
ATCHAFALAYA RIVER
MORGANZA
Morganza
LOWER LIMIT OF MORGANZA FLOODWAY
Indian Village
Ramah
Lottie
FLOODWAY
Hamburg
Woodside
Melville
WEST ATCHAFALAYA FLOODWAY
Mansura
BAYOU DES GLAISES DIVERSION CHANNEL
Krotz Springs
Sherburne
ATCHAFALAYA BASIN FLOODWAY
Fresh Water Distribution
Access Channel
OVERLAP SHEET 2
Palmetto
Courtableau
Butte La Rose
WEST ATCH. FLOODWAY
LEGEND
WORK COMPLETED 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2001
WORK REQUIRED TO COMPLETE AFTER THE BUDGET FISCAL YEAR 2002
* Estates have been changed which require acquisition of additional interests in lands previously acquired.
SCALES
KILOMETERS
MILES
ATCHAFALAYA BASIN
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION
SHEET 1 OF 2
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
PROJECT LOCATION
GULF OF MEXICO
VICINITY MAP


MORGAN CITY/BERWICK FLOOD PROOFING
E-84 B
W-123
E96/E99
E-84 A
ATCHAFALAYA BASIN FLOODWAY
WAX LAKE EAST DRAINAGE STRUCTURE
WAX LAKE LEVEE "S"
WAX LAKE LEVEE "A"
WEST BAYOU SALE MARYLAND
TODD LEVEE
BAYOU YOKELY P/S
WEST BAYOU SALE GORDY
EAST BAYOU SALE GORDY
ATCHAFALAYA BAY
BELLE RIVER
LAKE VERRET
LAKE PALOURDE
Morgan City
Berwick
Patterson
Centerville
Franklin
Charenton
Baldwin
Jeanerette
Chitimachas Indian Reservation
LAKE CHICOT
Grand Lake
Bayou Sorrel Lake
Myette Point
Cut-Off Bayou
SHELL ISLAND
HANSON CANAL
FRANKLIN CANAL
CHARENTON DRAINAGE AND NAVIGATION CANAL
SOUTHERN PACIFIC
OVERLAP SHEET 1
MAP SYMBOLS
LEVEE ENLARGEMENT
DRAINAGE STRUCTURE
CHANNEL
LOCK
NOTE:
60 ATCHAFALAYA RIVER MILEAGE
LEGEND
WORK COMPLETED 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2000
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE AFTER THE BUDGET FISCAL YEAR 2002
SCALES
KILOMETERS
MILES
ATCHAFALAYA BASIN
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION
SHEET 2 OF 2
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
GULF OF MEXICO
PROJECT LOCATION
VICINITY MAP

APPROPRIATION TITLE: Flood Control, Mississippi River & Tributaries, AR, IL, KY, LA, MS, MO, and TN - Construction

PROJECT: Atchafalaya Basin Floodway System, Louisiana (Continuing)

LOCATION: The project is located in south-central Louisiana and encompasses 595,000 acres in an area bounded on the north by south right-of-way line of the Union Pacific Railroad (just south of US Hwy 19); on the south by Morgan City; and on the east and west by the East and West Atchafalaya Basin Protection Levees.

DESCRIPTION: The plan of improvement consists of acquisition of real estate interest, excluding minerals, in the Lower Atchafalaya Floodway for flood control purposes, environmental protection purposes, developmental control purposes, and public access; acquisition of real estate interest, excluding minerals, in the Lower Atchafalaya Floodway, for recreation developmental purposes and construction of several campgrounds, boat launching ramps, visitor's center, other recreational facilities and initial construction of two pilot water management units, including construction of miscellaneous canal closures and water circulation improvements, and implementation of future units at the discretion of the Chief of Engineers. These project features will be implemented in accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986. All work is programmed.

AUTHORIZATION: Supplemental Appropriations Act, 1985; Water Resources Development Act, 1986; Energy and Water Development Appropriations Act, 1988; Energy and Water Development Appropriations Act, 1991; Energy and Water Development Appropriations Act, 1997; and Water Resources Development Act, 2000.

REMAINING BENEFIT–REMAINING COST RATIO: 36.6 to 1 at 2-1/2 percent. The benefit-cost ratio is based on all features which comprise the Main Stem system of the Mississippi River and Tributaries project.

TOTAL BENEFIT-COST RATIO: 7.9 to 1 at 2-1/2 percent.

INITIAL BENEFIT-COST RATIO: This project is a feature of the Main Stem system which was authorized in Fiscal Year 1928. Initial funds for the acquisition of real estate interests for flood control, developmental control, environmental protection, and public access were provided in 1988. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the Main Stem system. The benefit-cost ratio for the Main Stem components computed for the base estimate was 7.9 to 1.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in October 1979 at 1979 price levels. The latest comprehensive analysis was conducted in 1974. The 1979 analysis is the same as the 1974 analysis except that certain undocumented benefit categories were eliminated and 1979 prices were used.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$176,000,000	
Estimated Non-Federal Cost		$ 13,000,000	
Cash Contribution	$12,251,000		
Other Costs	749,000		
Total Estimated Project Cost		$189,000,000	
Allocations to 30 September 2000		$ 79,813,000	
Conference Allowance for FY 2001		10,000,000	
Allocation for FY 2001		11,475,000[1]	
Allocations through FY 2001		91,288,000	52
Allocation Requested for FY 2002		$ 7,160,000	56
Programmed Balance to Complete after FY 2002		77,552,000	
Unprogrammed Balance to Complete after FY 2002		0	

STATUS: (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Land Acquisition	27	Being determined
Recreation	0	Being determined
Management Units	0	Being determined
Entire Project	14	Being determined

PHYSICAL DATA

Lands and Damages: 388,000 Acres
Relocations: 2 Pipelines
Recreational Facilities
- 3 campgrounds – developed
- 7 campgrounds – primitive
- 15 2-lane boat launching ramps
- 1 Visitors Center

Water Management Units
- Miscellaneous canal closures and water circulation channels

JUSTIFICATION: The Atchafalaya Basin Floodway System features result from a comprehensive study with a view to developing a plan for the management and preservation of the water and related land resources of the Atchafalaya River Basin, Louisiana, which would include provisions for reductions of siltation, improvement of water quality, and possible improvements of the area for commercial and sport fishing. The features of the Atchafalaya Basin Floodway System are compatible with the current flood control plan, and include real estate acquisition of lands, flowage easements, and developmental control easements in the floodway south of Krotz Springs, Louisiana, to ensure unhampered use of the floodway during major floods; and environmental protection easements to protect the basin's environmental resources. Provision of additional public access and several campgrounds, boat launching ramps, visitors center, and other recreational

[1] Reflects $504,000 reduction assigned as savings and slippage, $2,000,000 reprogrammed to the project, and $21,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

facilities are also authorized. The water management units feature involves making use of distinct hydrologics within the floodway to restore historical overflow conditions and thereby enhance aquatic ecosystem productivity.

The Atchafalaya Basin Floodway System is one of several Main Stem components, which together comprise the plan of improvement for the control of floods on the Mississippi River. The components are: Mississippi River Levees, Channel Improvement, South Bank Arkansas and South Bank Red River Levees, the Atchafalaya Basin, Atchafalaya Basin Floodway System, Old River, and a few miscellaneous items. Because the benefits of the Atchafalaya Basin Floodway System derive from the way in which they operate together with the other Main Stem components when the Mississippi River floods, the benefit-cost ratio is a composite one that covers the entire plan.

The value of lands and improvements protected by authorized works against the design flood is $139.4 billion in 2000 dollars. This consists of 226,000 residential acres which include the City of New Orleans, 45,000 acres of commercial lands, 10 million acres of agricultural lands, and 6.5 million acres of woodland and marshland. The area subject to flooding by project flood assuming no protective works is 22.7 million acres. The area that will be provided complete protection by the completed project is 15.1 million acres.

The maximum flood of record was the 1927 flood which overflowed about 26,000 square miles, caused the deaths of 214 people, rendered 637,000 people temporarily homeless, and caused property damages of $347.0 million. This would be equivalent to $10.5 billion damages in 2000 prices.

The next flood of magnitude was the 1973 flood which overflowed 16,875 square miles (10.8 million acres), caused the death of 28 people, and displaced approximately 45,300 persons. The deaths and displacements of persons would have been significantly higher without the project in place. Without Federal projects, approximately 19.8 million acres would have been inundated. Total damages with existing projects in operation were $643 million (1973 price levels). Damages without projects would have been $11.3 billion and total damages prevented by projects amounted to $10.6 billion. Expressed in 2000 prices, damages without the projects would have been $38.2 billion and damages prevented would have been $35.8 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual benefits for the composite of Main Stem features are as follows:

Annual Benefits	Amount
Flood Control	$2,734,073,000
Navigation	884,704,000
Area Redevelopment	3,132,000
Recreation	3,434,000
Total	$3,625,343,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue:	
Lands and Damages	$ 5,873,000
Planning, Engineering and Design for Water Management Units	1,132,000
Complete:	
Simmesport Boat Launch	127,000
Planning, Engineering and Design (Simmesport)	9,000
Supervision and Administration (Simmesport)	19,000
TOTAL	$ 7,160,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Pay one-half of the separable cost allocated to recreation and bear all costs of operation, maintenance, and replacements of recreation facilities.	$ 12,251,000	$ 520,500
Provide lands, easements, rights-of-way, and dredged material disposal areas for recreation.	749,000	0
Pay 25 percent of operation and maintenance of Water Management Units.	0	17,700
Total Non-Federal Costs	$ 13,000,000	$ 538,200

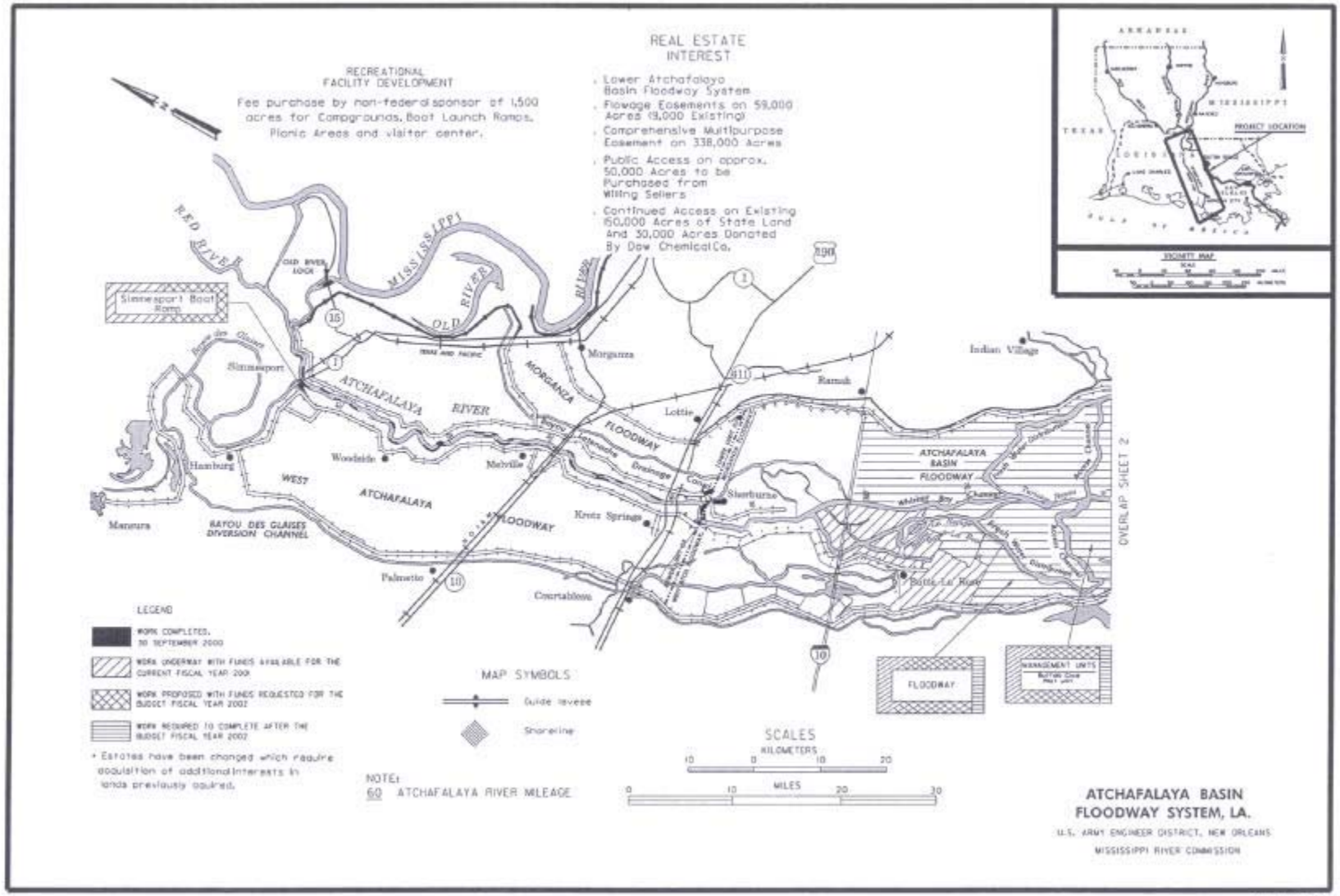
STATUS OF LOCAL COOPERATION: The Avoyelles Parish Police Jury is the non-Federal sponsor for the Simmesport Boat Ramp. The State of Louisiana has provided a letter of intent supporting the recreation feature of the project and agrees to its cost sharing requirements. The State designated the Department of Natural Resources to be the lead State agency to represent the State in the implementation of the project and to negotiate all contracts, agreements, and project cooperation agreements (except Simmesport Boat Ramp) with the Corps.

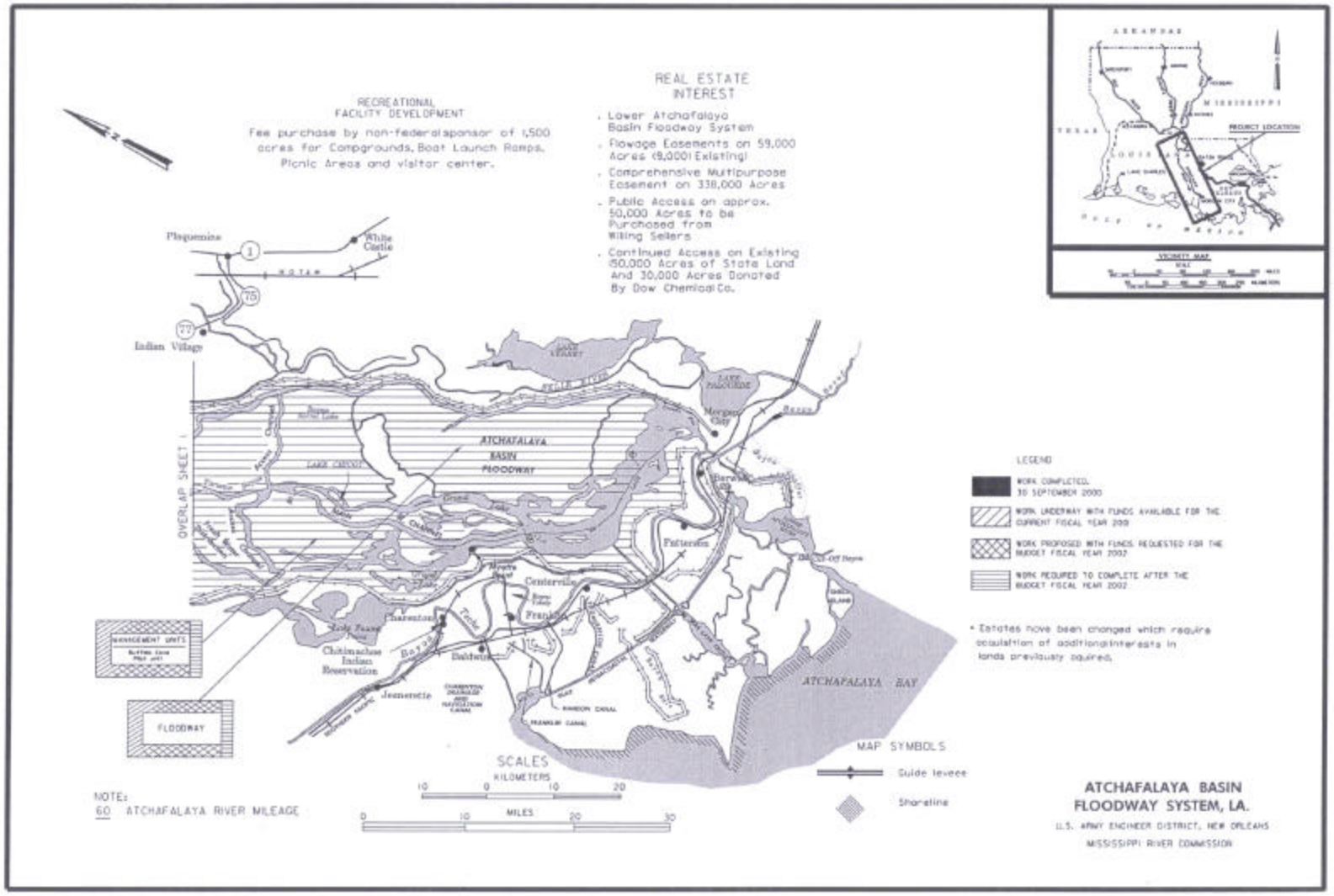
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $176,000,000 is a decrease of $8,000,000 from the latest estimate ($184,000,000) presented to Congress (Fiscal Year 2001). The change includes the following items:

Price Escalation on Construction Features	$ -8,353,000
Price Escalation on Real Estate	$ 353,000
TOTAL	$ -8,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency on 20 August 1982.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1985.


REAL ESTATE INTEREST
. Lower Atchafalaya Basin Floodway System
. Flowage Easements on 59,000 Acres (9,000 Existing)
. Comprehensive Multipurpose Easement on 338,000 Acres
. Public Access on approx. 50,000 Acres to be Purchased from Willing Sellers
. Continued Access on Existing 160,000 Acres of State Land And 30,000 Acres Donated By Dow Chemical Co.
RECREATIONAL FACILITY DEVELOPMENT
Fee purchase by non-federal sponsor of 1,500 acres for Campgrounds, Boat Launch Ramps, Picnic Areas and visitor center.
RED RIVER
MISSISSIPPI RIVER
OLD RIVER
OLD RIVER LOCK
Simmesport Boat Ramp
Simmesport
Bayou des Glaises
ATCHAFALAYA RIVER
MORGANZA FLOODWAY
Morganza
Lottie
Ramah
Indian Village
Hamburg
Woodside
Melville
WEST ATCHAFALAYA FLOODWAY
Krotz Springs
Sherburne
ATCHAFALAYA BASIN FLOODWAY
Marksville
BAYOU DES GLAISES DIVERSION CHANNEL
Palmetto
Courtableau
Butte La Rose
OVERLAP SHEET 2
LEGEND
WORK COMPLETED, 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE AFTER THE BUDGET FISCAL YEAR 2002
* Estates have been changed which require acquisition of additional interests in lands previously acquired.
MAP SYMBOLS
Guide levee
Shoreline
NOTE:
60 ATCHAFALAYA RIVER MILEAGE
SCALES
KILOMETERS
MILES
FLOODWAY
MANAGEMENT UNITS
PROJECT LOCATION
VICINITY MAP
ATCHAFALAYA BASIN FLOODWAY SYSTEM, LA.
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION


RECREATIONAL FACILITY DEVELOPMENT
Fee purchase by non-federal sponsor of 1,500 acres for Campgrounds, Boat Launch Ramps, Picnic Areas and visitor center.
REAL ESTATE INTEREST
. Lower Atchafalaya Basin Floodway System
. Flowage Easements on 59,000 Acres (9,000) Existing)
. Comprehensive Multipurpose Easement on 338,000 Acres
. Public Access on approx. 50,000 Acres to be Purchased from Willing Sellers
. Continued Access on Existing 150,000 Acres of State Land And 30,000 Acres Donated By Dow Chemical Co.
Plaquemine
White Castle
Indian Village
OVERLAP SHEET 1
ATCHAFALAYA BASIN FLOODWAY
Morgan City
Patterson
Centerville
Charenton
Baldwin
Jeanerette
Chitimacha Indian Reservation
ATCHAFALAYA BAY
MANAGEMENT UNITS
FLOODWAY
NOTE:
60 ATCHAFALAYA RIVER MILEAGE
SCALES
KILOMETERS
MILES
LEGEND
WORK COMPLETED 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 200
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE AFTER THE BUDGET FISCAL YEAR 2002
* Estates have been changed which require acquisition of additional interests in lands previously acquired.
MAP SYMBOLS
Guide levees
Shoreline
ATCHAFALAYA BASIN FLOODWAY SYSTEM, LA.
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION
VICINITY MAP
PROJECT LOCATION
SHEET 2 OF 2

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Construction

PROJECT: Francis Bland Floodway Ditch (Eight Mile Creek), Arkansas (Continuing)

LOCATION: The project is located in Greene and Craighead Counties in northeastern Arkansas approximately 90 miles northwest of Memphis, Tennessee. The city of Paragould, Arkansas, is drained by Eight Mile Creek.

DESCRIPTION: The project provides for 12.4 miles of channel improvement. There are 4.4 miles within the city limits of Paragould, Arkansas. The remaining 8.0 miles provide a downstream outlet for the city. All work is programmed.

AUTHORIZATION: 1985 Supplemental Appropriations Act and the Water Resource Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: 5.8 to 1 at 8-7/8 percent.

TOTAL BENEFIT-COST RATIO: 5.8 to 1 at 8-7/8 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 8-7/8 percent (FY 1986).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available reevaluation approved in January 1995 at 1993 price levels.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$ 9,270,000
Estimated Non-Federal Cost		6,010,000
Cash Contributions	$ 780,000	
Other Costs	5,230,000	
Total Estimated Project Cost		$15,280,000

STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	55	Being Determined

PHYSICAL DATA	
Lands and Damages:	180 acres Commercial/Residential
Relocations:	
Roads	7 bridges
Railroads	2 bridges
Channels	12.4 miles

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST
Allocations to 30 September 2000	$3,981,000	
Conference Allowance for FY 2001	2,110,000	
Allocation for FY 2001	2,000,000[1]	
Allocations through FY 2001	5,981,000	65
Allocation Requested for FY 2002	915,000	74
Programmed Balance to Complete After FY 2002	2,374,000	

JUSTIFICATION: Eight Mile Creek provides drainage primarily for the city of Paragould, Arkansas. A 100-year flood would cause expected annual damages of $819,000 (October 2000 price levels). The project will provide 100-year protection in the urban area of Paragould and maintain current 3-year protection levels in the downstream rural area. Flooding impacts 1,750 residential and commercial structures and contents within the 100-year flood plain. The structure and contents have a value of approximately $172,346,000 (October 2000 price levels). Total damage from a 100-year flood is estimated at approximately $13,378,000 (October 2000 price levels). Average annual damage for such properties with project is $681,600 (October 2000 price levels). Flooding has occurred to some extent on an annual basis. Major floods occurred in 1973, 1974, 1980, and 1991. The plan of improvement addresses the need for flood damage reduction without significant detriment to the natural environment. Total annual average benefits (1993 price levels), all for flood control, are $2,260,000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue: Item 2 Urban Channel Enlargement	$ 785,000
Planning, Engineering and Design	40,000
Supervision and Administration	90,000
Total	$ 915,000

[1] Reflects $106,000 reduction assigned as savings and slippage and $4,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

NON-FEDERAL COST: In accordance with the cost sharing and financial concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, And Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$4,178,000	---
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges) and other facilities where necessary in the construction of the project.	1,052,000	---
Pay 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	780,000	$21,000
Total Non-Federal Costs	$6,010,000	$21,000

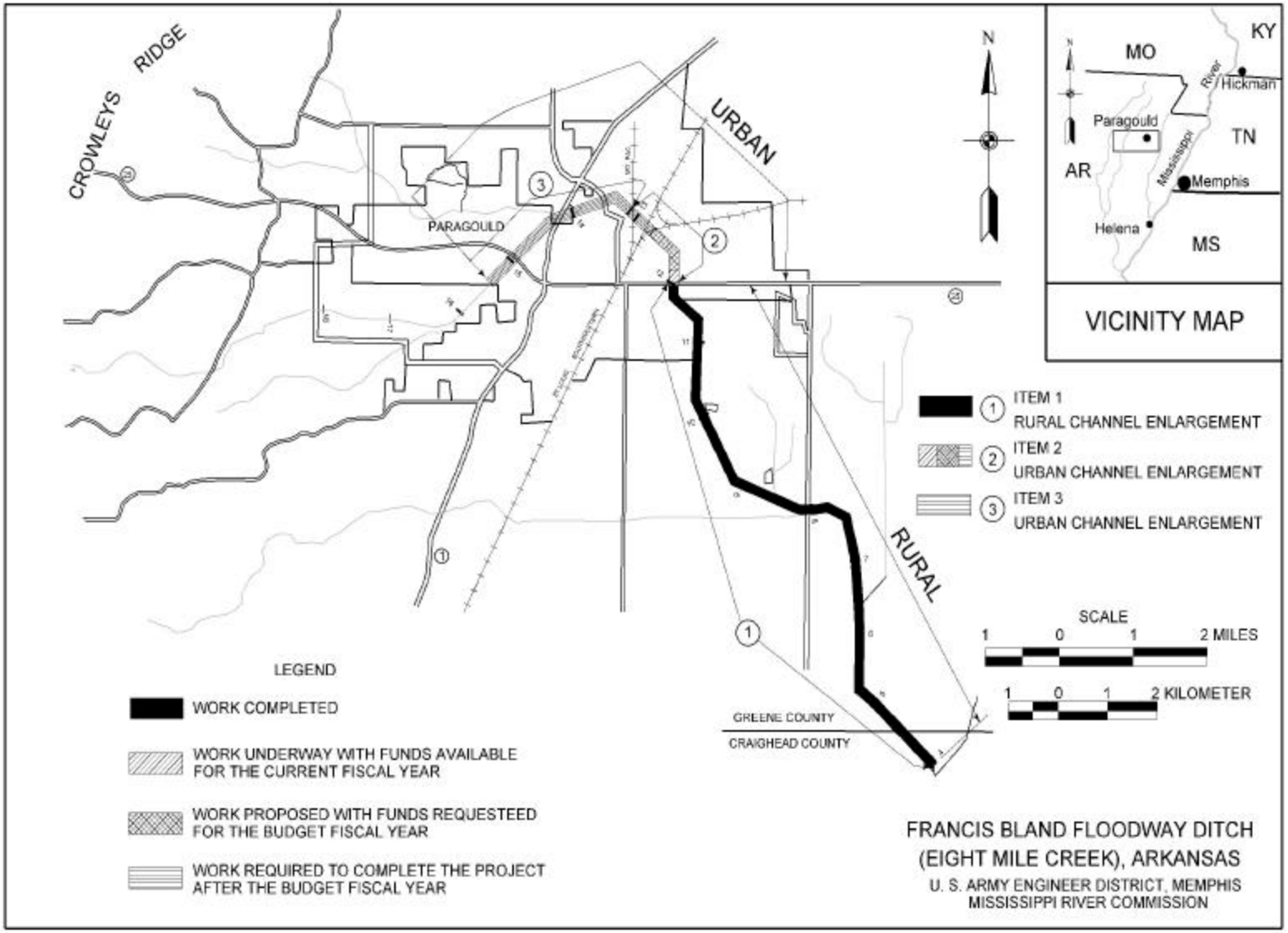
STATUS OF LOCAL COOPERATION: City officials have identified sufficient funds in current annual tax revenue, which can be used to meet project cash contributions and other requirements. The Arkansas Soil and Water Conservation Commission is the sponsor with the City of Paragould, Arkansas as the sub-party. The Project Cooperation Agreement with the Arkansas Soil and Water Commission was executed on 28 June 1996.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $9,270,000 is an increase of $170,000 from the latest estimate ($9,100,000) presented to Congress (FY 2001). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	$-169,000
Post Contract Award and Other Estimating Adjustments	339,000
Total	$ 170,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment/Finding of No Significant Impact (FONSI) was completed as part of the August 1988 General Design Memorandum. A cultural resources field survey indicates that some cultural resource sites are located in the project vicinity. The project will not impact any of the sites. There are no endangered species in the project area. Water quality certification has been granted by the State of Arkansas.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design and construction were appropriated in FY 1986.


CROWLEYS RIDGE
URBAN
RURAL
PARAGOULD
N
MO
KY
Hickman
Paragould
TN
AR
Memphis
Helena
MS
VICINITY MAP
ITEM 1
RURAL CHANNEL ENLARGEMENT
ITEM 2
URBAN CHANNEL ENLARGEMENT
ITEM 3
URBAN CHANNEL ENLARGEMENT
SCALE
1 0 1 2 MILES
1 0 1 2 KILOMETER
GREENE COUNTY
CRAIGHEAD COUNTY
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTEED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
FRANCIS BLAND FLOODWAY DITCH
(EIGHT MILE CREEK), ARKANSAS
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Construction

PROJECT: Helena and Vicinity, Arkansas – (Continuing)

LOCATION: The project is located in Phillips County in east central Arkansas, approximately 60 miles South of Memphis, Tennessee.

DESCRIPTION: The project is an urban flood control project. The plan of improvement consists of 1.41 miles of channel improvement within the city limits of Helena, Arkansas. The plan includes 0.69 miles of earthen channel enlargement at the south end of the city limits, 0.19 miles of open concrete channel enlargement and 0.53 miles of underground concrete box culverts. This plan of improvement would provide approximately a 25-year level of protection for the downtown business district of the city of Helena and for the adjacent residential community. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: 12.9 to 1 at 7-3/8 percent.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 7-3/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the Helena and Vicinity, Arkansas, General Reevaluation Report dated January 1995 at October 1992 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$ 8,590,000	
Estimated Non-Federal Cost		2,980,000	
Cash Contributions	$ 602,000		
Other Costs	2,378,000		
Total Estimated Project Cost		$11,570,000	
Allocations to 30 September 2000		$ 4,589,000	
Conference Allowance for FY 2001		2,450,000	
Allocation for FY 2001		2,321,000[1]	
Allocations through FY 2001		6,910,000	80
Allocation Requested for FY 2002		1,675,000	100
Programmed Balance to Complete after FY 2002		5,000	
Unprogrammed Balance to Complete after FY 2002		0	

STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	70	Being determined

PHYSICAL DATA

Lands and Damages:	17 acres
Relocations:	2 bridges and 50 utilities
Channels:	1.41 miles

JUSTIFICATION: The project provides drainage primarily for the city of Helena, Arkansas. Expected annual structural damage in the Standard Project Floodplain is approximately $2,038,000 in 2000 price levels, over half of which occurs to structures located in the 0-1.1 year flood zone. The project will reduce flooding in the urban area of Helena. The project will provide a 25-year level of protection along Main Outlet Ditch and prevent approximately $1,390,000 in total expected annual damages (2000 price levels).

[1] Reflects $124,000 reduction assigned as savings and slippage and $5,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

Flooding impacts 637 residential and commercial structures and their contents within the Standard Project Floodplain. The structures and contents have a present value of approximately $71,026,000 (2000 price levels). Total damage from the Standard Project Flood event is estimated at $12,733,000 (2000 price levels). Average annual damages for such properties with and without project conditions are estimated at $571,000 and $2,038,000 (2000 price levels), respectively. Flooding has occurred to some extent on virtually an annual basis over the recent past. Major flooding occurred in 1973, 1974, 1980, and 1989. The plan of improvement addresses the need for flood damage reduction without significant detriment to the natural environment.

The project lies solely within Phillips County, Arkansas, a county with historically high unemployment.

Total average annual benefits (1992 price levels) are as follows:

Annual Benefits	Amount
Flood Damage Prevention	$1,259,000
Area Redevelopment	48,000
Total	$1,307,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Complete:	
Item 2, Underground Concrete Culvert	$1,134,000
Planning, Engineering, and Design	163,000
Supervision and Administration	378,000
Total	$1,675,000

NON-FEDERAL COST: In accordance with the cost sharing and financial concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, And Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$ 841,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges) and other facilities where necessary in the construction of the project.	$1,537,000	
Pay 14 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 50 percent, as determined under proposed legislation, or Section 103(m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsor's ability to pay and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	$ 602,000	$100,000
Total Non-Federal Costs	$ 2,980,000	$100,000

The non-Federal sponsor will be required to make all payments concurrently with project construction.

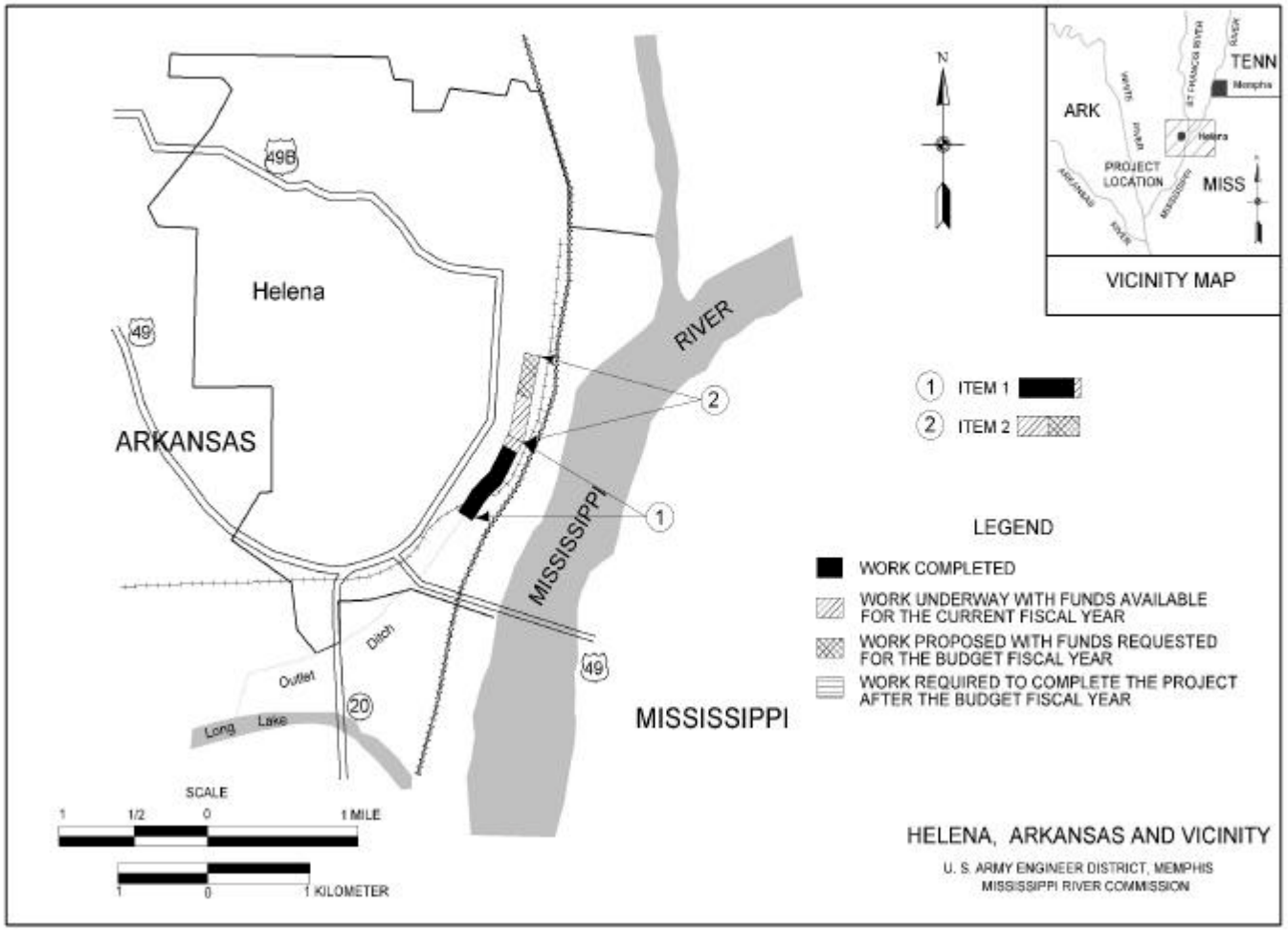
STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement (PCA) with the city of Helena, the project sponsor was executed on 18 August 1997.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $8,590,000 is an increase of $210,000 from the latest estimate ($8,380,000) presented to Congress (FY 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$210,000
Total	$210,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment/Finding of No Significant Impact (FONSI) was completed as a part of the January 1995 General Reevaluation Report. Environmental impacts of this project will be minimal since construction will be completed within the already highly developed city limits. Water Quality Certification has been granted by the state of Arkansas.

OTHER INFORMATION: Funds to initiate Preconstruction Engineering and Design were appropriated in FY 1990. Funds to initiate construction were appropriated in Fiscal Year 1997.


Helena
ARKANSAS
MISSISSIPPI
RIVER
MISSISSIPPI
49B
49
49
20
Ditch
Outlet
Long Lake
N
TENN
ARK
MISS
PROJECT LOCATION
VICINITY MAP
1 ITEM 1
2 ITEM 2
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
SCALE
1 1/2 0 1 MILE
1 0 1 KILOMETER
HELENA, ARKANSAS AND VICINITY
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Construction

PROJECT: St. Francis Basin, Arkansas and Missouri (Continuing)

LOCATION: The project is located in the St. Francis Basin in southeastern Missouri and northeastern Arkansas, and extends from the hills southwest of Cape Girardeau, Missouri, near Wappapello, Missouri, to the confluence of the St. Francis and Mississippi Rivers about 10 miles above Helena, Arkansas.

DESCRIPTION: The project provides for protection against headwater floods by means of a detention reservoir at Wappapello, MO, improvement of the flood-carrying capacities of the St. Francis and Little Rivers and there principal tributaries by means of levees, channel improvements, new channels, auxiliary channels, and floodways, including the main ditches in the Little River Basin. Protection against backwater flooding of the Mississippi River is provided by realignment of the St. Francis River channel supplemented with auxiliary channels, levee construction, and a pumping plant and floodgate. All work is programmed.

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1938, 1941, 1944, 1946, 1950, 1958, 1965, 1968, Water Resources Development Act of 1974; Omnibus Appropriations Act 2001, PL 106-554.

REMAINING BENEFIT-REMAINING COST RATIO: 3.5 to 1 at 2-1/2 percent.

TOTAL BENEFIT-COST RATIO: 3.5 to 1 at 2-1/2 percent.

INITIAL BENEFIT-COST RATIO: This project feature was authorized in Fiscal Year 1928 and initial construction funds were provided in Fiscal Year 1938. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the project. The benefit-cost ratio for the St. Francis Basin components computed for the base estimate was 2.4 to 1.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in July 1985 at 1983 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$401,600,000	Big Slough and Mayo Ditch	100	
Estimated Non-Federal Cost		1,876,000	Wappapello Lake	100	
Cash Contributions	$ 263,000		Little River Drainage	100	
Other Costs	1,613,000		St. Francis River and and Tributaries	91	Being Determined
Total Estimated Project Cost		$403,476,000	Entire Project	93	Being Determined

SUMMARIZED FINANCIAL DATA (CONT)		ACCUM PCT OF EST FED COST
Allocations to 30 September 2000	$368,961,000	
Conference Allowance for FY 2001	4,195,000	
Allocation for FY 2001	4,374,000[1]	
Allocations through FY 2001	373,335,000	93
Allocation Requested for FY 2002	3,230,000	94
Programmed Balance to Complete After FY 2002	25,035,000	
Unprogrammed Balance to Complete After FY 2002	0	

PHYSICAL DATA

Levees:
Average Height: 11.7 feet
Length: 438.0 miles

Channels:
St. Francis River and Tributaries: 638 miles
Little River Drainage: 299 miles
Big Slough and Mayo Ditches: 28 miles

Pumping Plants:
1 – 25 cubic feet per second
1 – 12,000 cubic feet per second
1 – 700 cubic feet per second

Relocations:
Roads: 21.3 miles and 296 bridges
Railroads: 39 bridges

Dam and Reservoir: 1 – Dam

Flood Control and Diversion Structures: 8

Lands and Damages: 188,927 acres

Other: 1 – Siphon

JUSTIFICATION: The project is a flood control project and is a unit in the Comprehensive Plan for Flood Control, Mississippi River and Tributaries. Protection against headwater floods of the St. Francis and Little Rivers will be afforded to an area of approximately 1,436,855 acres of agricultural lands including numerous small towns, several major railroads, highways, and utilities, located in Missouri and Arkansas. The construction of adequate outlets for the many drainage improvements undertaken by local interests will provide relief from overflow on approximately 196,700 acres in the Little River Basin, 29,000 acres in the Elk Chute Basin, and 35,000 acres in the Big Slough area. In addition, relief from flooding by backwaters of the Mississippi River is afforded to approximately 532,000 acres in the Lower St. Francis Basin below the latitude of St. Francis Lake by the Madison to Marianna Cutoff and related work including the pumping plant. Flooding has occurred every year with few exceptions, and the flood of record occurred in 1937 causing numerous breaks in the locally constructed substandard levees with resultant damages of over $2,000,000. It is estimated that the recurrence of the 1937 flood, under present conditions of development in the floodplain, would cause damages of over $60,551,000 (1999 price levels) if the flood occurred during the crop-growing season. Continuing construction of this project is needed to prevent recurring flood losses. Project benefits will result from flood damages prevented, increased utilization of land, and fish and wildlife enhancement. Counties within the project area that are subject to substantial and persistent unemployment are: Lee, Mississippi and St. Francis in Arkansas. Average annual benefits (1983 price levels) are as follows (for total project):

[1] Reflects $212,000 reduction assigned as savings and slippage, $400,000 reprogrammed to the project, and $9,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

Annual Benefits	Amount
Flood Control	$27,439,000
Recreation	2,152,000
Fish and Wildlife	333,000
Area Redevelopment	785,000
Advance Replacement	1,807,000
Betterments	519,000
Relocation Assistance	24,000
Total	$33,059,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

ST. FRANCIS RIVER AND TRIBUTARIES	
Continue:	
Ditches 1 and 6 Channel Improvement, MO	$ 200,000
Lands and Damages	1,500,000
Complete:	
Relocations, Big Slough Channel Improvement, AR	1,000
Ditch 10, AR, IT 2 Culvert	131,000
Relocations for Ditches 1 and 6, MO	144,000
Planning, Engineering and Design	986,000
Supervision and Administration	268,000
Total	$3,230,000

NON-FEDERAL COST: Prior to the Flood Control Act of 1946, local interests provided lands, easements, and rights-of-way and provided for relocation of interfering facilities. After 1946, local cooperation was limited to minor maintenance of levees except for providing right-of-way for specific features, i.e., recreation facilities at the W. G. Huxtable Pumping Plant, Inter River Culvert and St. Francis Lake Control Structure. A tabulation of these and other non-Federal costs is as follows:

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$1,492,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities where necessary for the construction of the project.	121,000	
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, and replacement of recreation facilities.	85,000	
Pay all costs of minor maintenance of levees.		$970,000
Pay a portion equivalent to 6.4% of the first costs associated with the Improvements in the Big Lake area for fish and wildlife enhancement.	178,000	
Total Non-Federal Costs	$1,876,000	$970,000

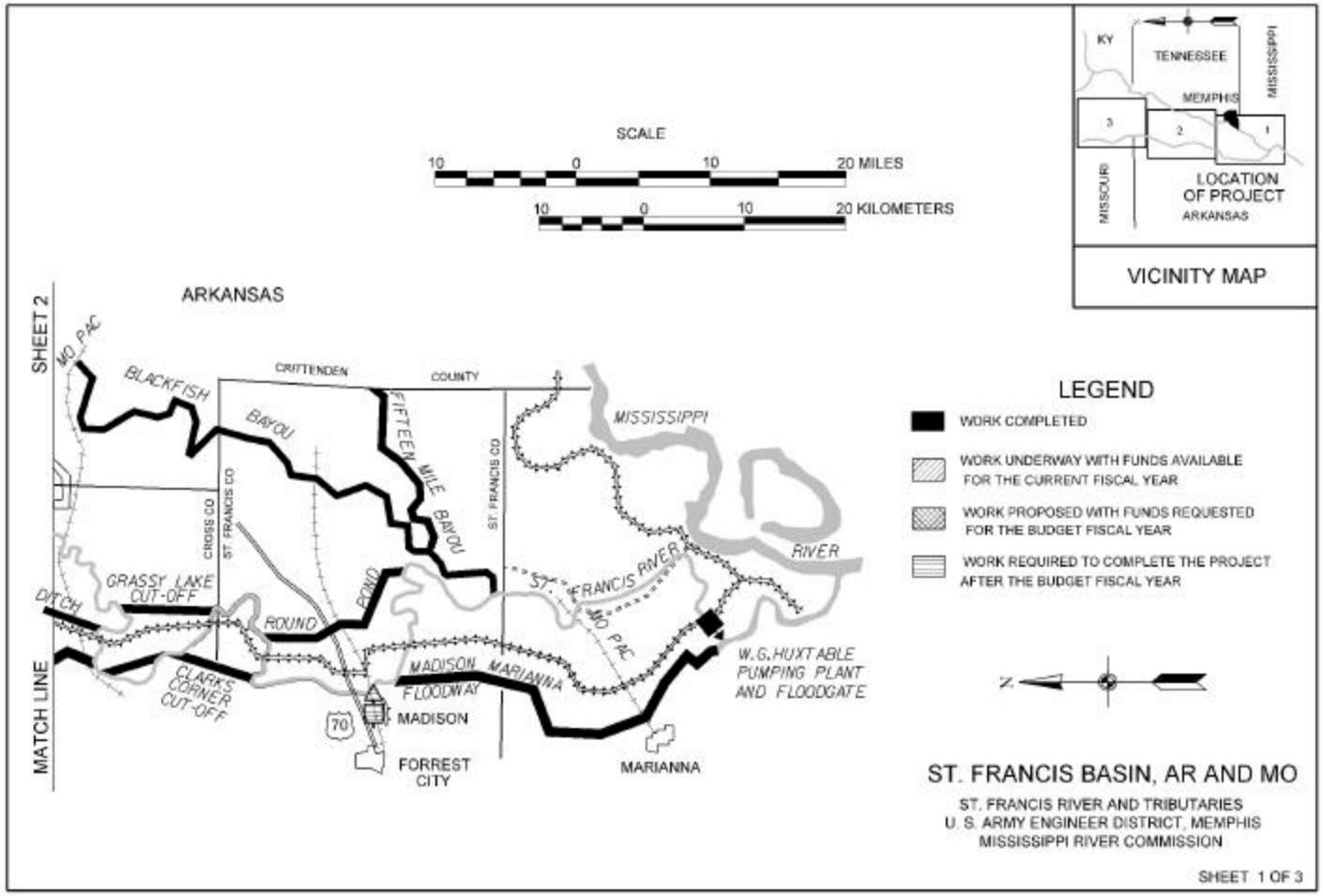
STATUS OF LOCAL COOPERATION: Necessary assurances have been furnished by 24 levee and drainage districts to perform minor maintenance as required by law. These agencies are furnishing all requirements of local cooperation necessary for meeting the present project schedule.

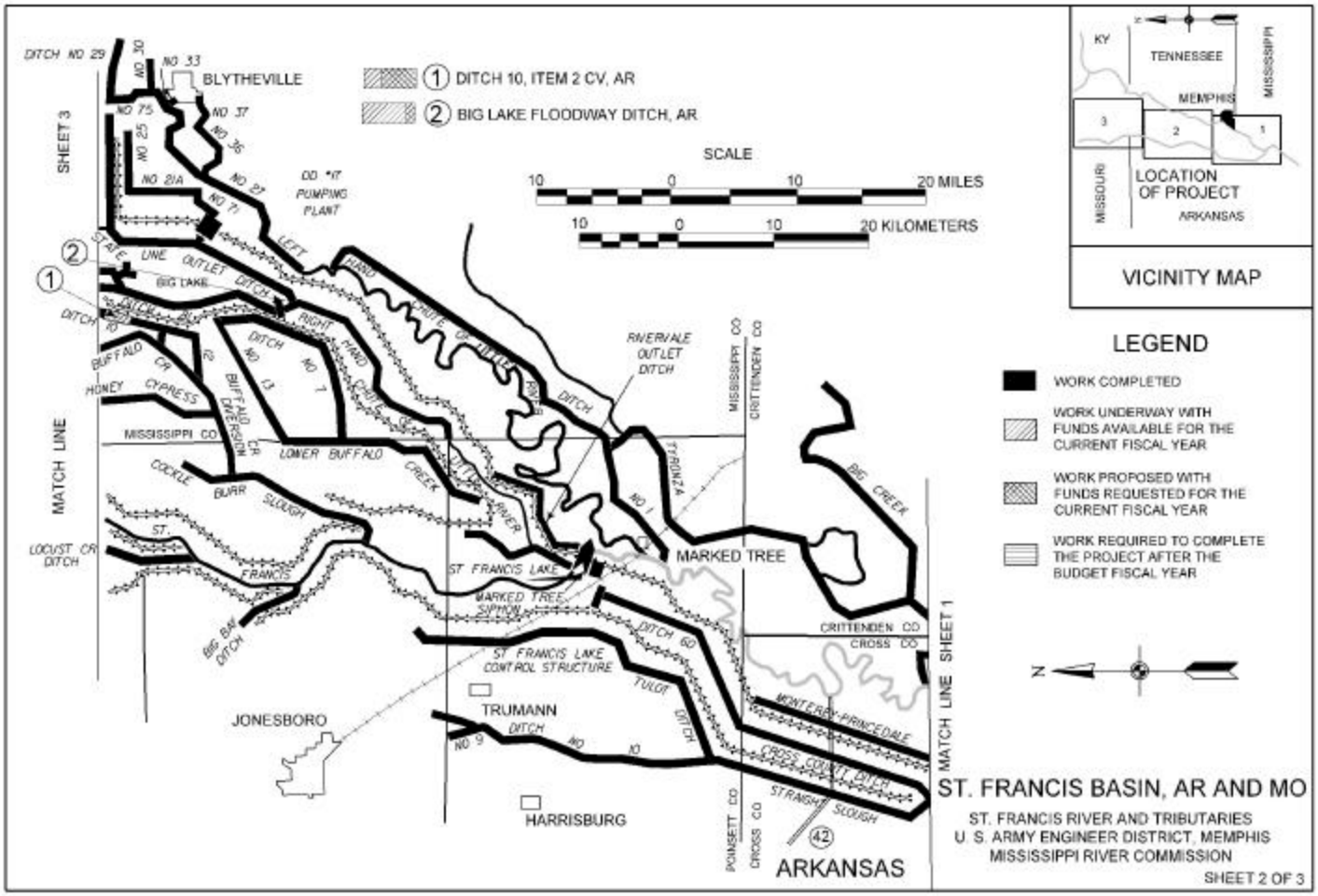
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $401,600,000 is an increase of $12,600,000 from the latest estimate ($389,000,000) presented to Congress (FY 2001). This change includes the following items.

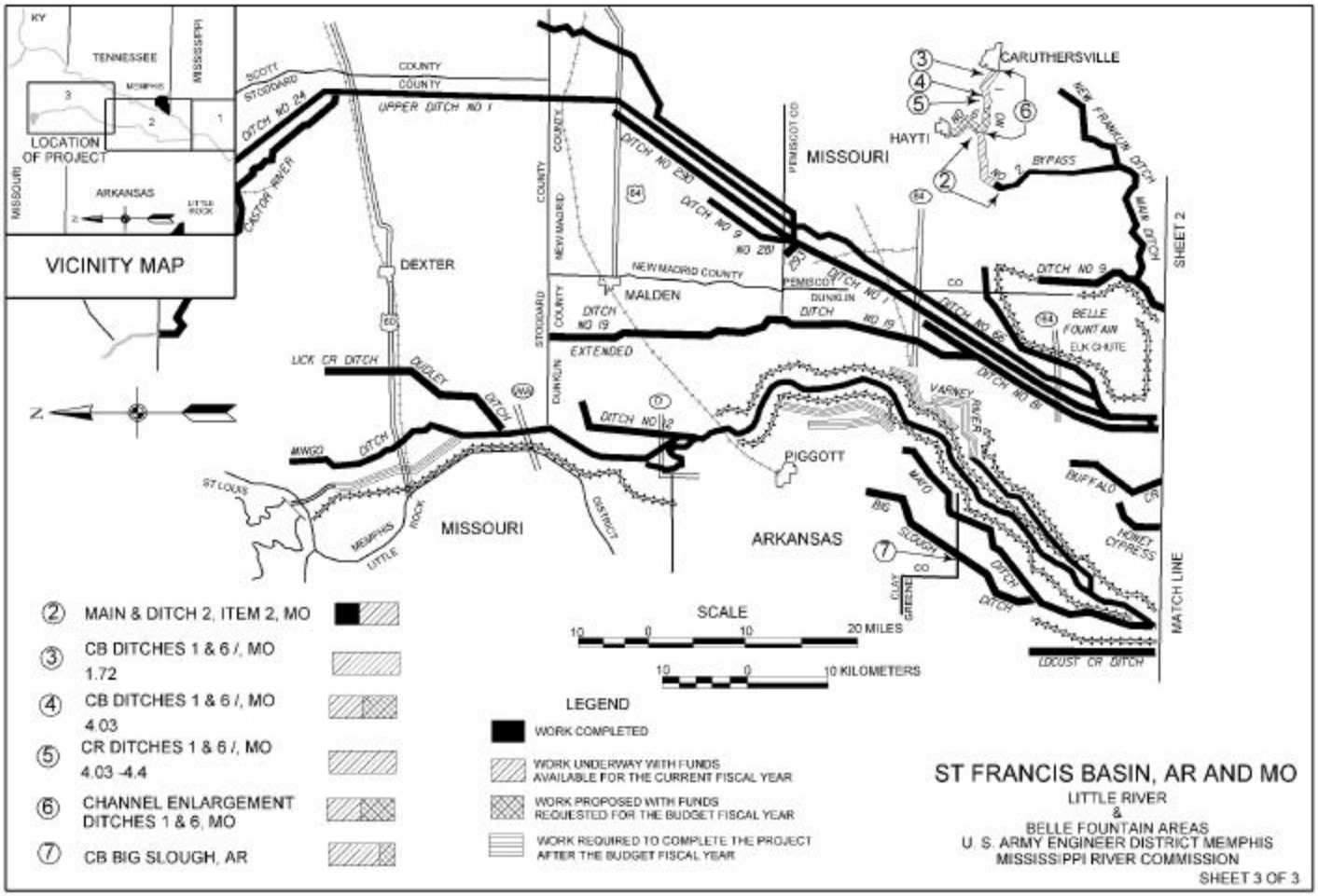
Item	Amount
Authorized Modifications	$ 9,600,000
Price Escalation on Construction Features	$ 3,000,000
Total	$12,600,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 11 December 1973.

OTHER INFORMATION: Initial construction funds were appropriated in Fiscal Year 1938.


SCALE
10 0 10 20 MILES
10 0 10 20 KILOMETERS
KY
TENNESSEE
MEMPHIS
MISSISSIPPI
MISSOURI
LOCATION OF PROJECT
ARKANSAS
VICINITY MAP
ARKANSAS
SHEET 2
MATCH LINE
MO PAC
BLACKFISH
BAYOU
CRITTENDEN
COUNTY
FIFTEEN MILE BAYOU
CROSS CO
ST FRANCIS CO
ST. FRANCIS CO
MISSISSIPPI
RIVER
ST. FRANCIS RIVER
GRASSY LAKE CUT-OFF
DITCH
ROUND
POND
CLARK'S CORNER CUT-OFF
MADISON FLOODWAY
MARIANNA
W.G. HUXTABLE PUMPING PLANT AND FLOODGATE
70
MADISON
FORREST CITY
MARIANNA
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
N
ST. FRANCIS BASIN, AR AND MO
ST. FRANCIS RIVER AND TRIBUTARIES
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION
SHEET 1 OF 3


ST. FRANCIS BASIN, AR AND MO
ST. FRANCIS RIVER AND TRIBUTARIES
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION
SHEET 2 OF 3
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE CURRENT FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
VICINITY MAP
LOCATION OF PROJECT
KY
TENNESSEE
MEMPHIS
MISSISSIPPI
MISSOURI
ARKANSAS
SCALE
20 MILES
20 KILOMETERS
1 DITCH 10, ITEM 2 CV, AR
2 BIG LAKE FLOODWAY DITCH, AR
BLYTHEVILLE
JONESBORO
TRUMANN
HARRISBURG
MARKED TREE
ST FRANCIS LAKE
ST FRANCIS LAKE CONTROL STRUCTURE
MARKED TREE SIPHON
RIVERDALE OUTLET DITCH
MISSISSIPPI CO
CRITTENDEN CO
CROSS CO
POINSETT CO
MATCH LINE
MATCH LINE SHEET 1
SHEET 3
ARKANSAS
DITCH NO 29
NO 33
NO 37
NO 36
NO 21
NO 7
NO 21A
NO 25
NO 75
NO 30
OD #17 PUMPING PLANT
STATE LINE OUTLET DITCH
BIG LAKE
LEFT HAND CHAPLIN CR
RIGHT HAND CHAPLIN CR
DITCH NO 1
DITCH NO 13
BUFFALO CR
HONEY CYPRESS
BUFFALO EXTENSION CR
LOWER BUFFALO CREEK
COCKLE BURR SLOUGH
ST. FRANCIS RIVER
LOCUST CR DITCH
BIG BAY DITCH
TYRONZA
NO 1
BIG CREEK
DITCH 60
TULOT DITCH
MONTEREY-PRINCEDALE
CROSS COUNTY DITCH
STRAIGHT SLOUGH
NO 9
NO 10
42


VICINITY MAP
LOCATION OF PROJECT
TENNESSEE
ARKANSAS
MISSOURI
CARUTHERSVILLE
HAYTI
DEXTER
MALDEN
PIGGOTT
MISSOURI
ARKANSAS
SHEET 2
MATCH LINE
SCALE
20 MILES
10 KILOMETERS
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
② MAIN & DITCH 2, ITEM 2, MO
③ CB DITCHES 1 & 6 /, MO 1.72
④ CB DITCHES 1 & 6 /, MO 4.03
⑤ CR DITCHES 1 & 6 /, MO 4.03 -4.4
⑥ CHANNEL ENLARGEMENT DITCHES 1 & 6, MO
⑦ CB BIG SLOUGH, AR
ST FRANCIS BASIN, AR AND MO
LITTLE RIVER
&
BELLE FOUNTAIN AREAS
U. S. ARMY ENGINEER DISTRICT MEMPHIS
MISSISSIPPI RIVER COMMISSION
SHEET 3 OF 3

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Construction

PROJECT: Tensas Basin, Arkansas and Louisiana (Continuing)

LOCATION: The Tensas Basin is located in the alluvial valley of Arkansas (counties of Jefferson, Lincoln, Draw, Desha and Chicot) and Louisiana Parishes of East Carroll, West Carroll, Morehouse, Richland, Madison, Franklin, Tensas, Catahoula, Concordia, Avoyelles and LaSalle) between the Mississippi River on the east and an escarpment on the west and extends southward from the Arkansas River to the Red River in the vicinity of Marksville, Louisiana.

DESCRIPTION: The Basin is comprised of two separable units--the upper portion known as the Boeuf-Tensas area and the lower portion known as the Red River backwater area. Major features in the upper Basin consist of 120.4 miles of channel and tributary improvements along the Tensas River and a 6,500 cubic foot per second pumping plant at Lake Chicot, Arkansas. The lower basin features include 93.1 miles of levee and a 4,000 cubic foot per second pumping plant in the Tensas-Cocodrie subarea; 83.2 miles of ring levee for the Larto Lake to Jonesville subarea; construction of a 56.0-mile levee and two pumping plants (300 and 750 cubic feet per second) at Sicily Island subarea; and a 31.3-mile levee with a 500 cubic foot per second pumping plant for the Below Red River subarea. All work within the project is programmed except Tensas River (Boeuf and Tensas Rivers, etc.), and Below Red River Area (Red River Backwater). Because of the inability of the local development authority to execute its assurances, two remaining recreation facilities at Lake Chicot have been deleted from the project. The Tensas River Project was reclassified to the inactive category in September 1990 because the project currently does not have a committed local sponsor to cost share further work on the project and there is no indication that a commitment will be made in the near future. The Below Red River Area Project was reclassified to the inactive category in May 1993 based on the lack of economic justification. Approval was granted by CEMRC letter, 11 March 1997, to reclassify Larto Lake to Jonesville Levees, Below Larto Lake Area, to the inactive category due to lack of local interest.

AUTHORIZATION: Flood Control Acts of 1941, 1944, 1946, 1950, 1958, 1962, 1965, 1968, and Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: 4.5 to 1 at 2-1/2 percent.

TOTAL BENEFIT-COST RATIO: 4.6 to 1 at 2-1/2 percent.

INITIAL BENEFIT - COST RATIO: 3.0 to 1 at 2-1/2 percent (FY 1967).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the "1974 Mississippi River and Tributaries Update," except for the Below Red River project, which was based on the "Phase II, General Design Memorandum," December 1988, and the Tensas River Project, which was based on the "Tensas River Project, Louisiana, General Design Memorandum No. 26," December 1988.

SUMMARIZED FINANCIAL DATA

Estimated Total Appropriation Requirement			$477,631,000
Programmed Construction		$331,326,000	
Unprogrammed Construction		146,305,000	
Future Non-Federal Reimbursement			1,784,000
Programmed Construction		1,784,000	
Unprogrammed Construction		0	
Estimated Federal Cost (Ultimate)			475,847,000
Programmed Construction		329,542,000	
Unprogrammed Construction		146,305,000	
Estimated Non-Federal Cost			30,728,000
Programmed Construction		2,246,000	
Cash Contributions	$ 0		
Other Costs	462,000		
Reimbursements			
Rec Fac	1,784,000		
Unprogrammed Construction		28,482,000	
Cash Contribution	7,403,000		
Other Costs	21,079,000		
Total Estimated Programmed Construction Cost			$331,788,000
Total Estimated Unprogrammed Construction Cost			174,787,000
Total Estimated Project Cost			506,575,000

STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULED
Boeuf and Tensas Rivers, Etc		
All Work Except Lake Chicot Pumping Plant	82	Indefinite
Lake Chicot Pumping Plant	100	September 1992
Tensas River Separable Element	0	Indefinite
Red River Backwater Area		
All Work Except Tensas-Cocodrie Pumping Plant	74	Indefinite
Tensas-Cocodrie Pumping Plant	100	September 1997
Below Red River Separable Element	0	Indefinite
Entire Project	90	Being Determined

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST
Allocations to 30 September 2000	$321,352,000	
Conference Allowance for FY 2001	2,330,000	
Allocation for FY 2001	5,804,000 1/	
Allocations Through FY 2001	327,156,000	68
Allocation Requested for FY 2002	2,628,000	69
Programmed Balance to Complete After FY 2002	1,542,000	
Unprogrammed Balance to Complete After FY 2002	146,305,000	

1/ Reflects $118,000 reduction for savings and slippage, $5,000 rescinded in accordance with the Consolidated Appropriations Act, 2001, $3,597,000 reprogrammed to the project.

PHYSICAL DATA

Boeuf and Tensas Rivers, Etc.
All Work Except Lake Chicot Pumping Plant

Lands and Damages:	Relocations:	Channels and Canals:
74,279 acres	Roads: 26.6 miles and 88 bridges Railroads: 9 bridges	1,009.3 miles

Lake Chicot Pumping Plant

Lands and Damages:	Relocations:	Channels and Canals:	Dams:
1,201 acres	Roads: 1 mile	2 Weirs	1 - 200 feet length 1 - 300 feet length

Recreation Facilities:
4 sites

Pumping Plants:
1 - 6,500 cubic feet per second

Roads:
1 - Access Road for Pumping Plant
1 - Access Road for Ditch Bayou Dam
1 - Access Road for Connerly Bayou Dam

Red River Backwater Area
All Work Except Tensas-Cocodrie Pumping Plant

Lands and Damages:
29,091 acres (includes 12,800 acres for mitigation)

Relocations:
Roads: 28.4 miles and 5 bridges

Levees and Floodwalls:
Levees:
Average Height: 10-25 feet
Length: 263.6 miles
Drainage Structures: 32 (24" pipes to 10' x 15' box culverts)

Channels and Canals: 46.0 miles
All Interior Drainage except 1-1/2 miles Smithland Cutoff

Recreation Facilities:
9 miles access road

Pumping Plants:
1-300 cubic feet per second
1-750 cubic feet per second
1-500 cubic feet per second

Fish and Wildlife:
1.1 miles diversion channel,
Two 60-inch pipe gravity structures,
1 weir

Tensas-Cocodrie Pumping Plant

Lands and Damages:
790 acres

Relocations:
Roads: 1.4 miles and 3 bridges

Channels and Canals:
6.8 miles, 1 concrete weir, 1 earth weir, and 1 gravity structure

Pumping Plant:
1-4,000 cubic feet per second

Fish and Wildlife Facilities:
Diversion channel
2 water control structures
3 boat-launching ramps

JUSTIFICATION: The Tensas Basin project is comprised of two separable units: the Boeuf and Tensas Rivers, which includes the Lake Chicot Pumping Plant, and the Red River Backwater Area, which includes the Tensas-Cocodrie Pumping Plant.

The land in the Boeuf and Tensas River Basin possesses a high potential for agricultural production but this potential is restricted by the frequency and duration of overflow and by poor drainage which, for long periods, causes the ground to remain in a condition unsuitable for cultivation. The project will eliminate most of these hindrances and allow full economic development by providing adequate channels for the streams and major outlets for an effective local drainage system. A total of 922,000 acres (including Lake Chicot) will be substantially benefitted by the project. Lands in the Red River Backwater Area are extremely fertile but their development to full potential is adversely affected by backwaters of the Mississippi River. These lands must remain subject to use for storage of floodwaters during a Mississippi River project flood. However, protection of the area against lesser floods, particularly headwater floods of the Ouachita, Black, and Red Rivers, will permit a high degree of economic development. A total of 575,700 acres will be substantially benefitted by the project. Average annual benefits for the Tensas Basin are as follows:

Annual Benefits	Amount
Flood Control	$38,187,000
Recreation	567,000
Fish and Wildlife	416,000
Area Redevelopment	494,000
Total	$39,664,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Red River Backwater Area
All Work Except Tensas-Cocodrie Pumping Plant

Complete:	
Sicily Island, LA, Item 1-C & 1-D	$1,021,000
Lands and Damages	304,000
Miscellaneous Relocations	35,000
Planning, Engineering and Design	650,000
Supervision and Administration	618,000
TOTAL	$2,628,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the initial authorization and subsequent authorized modifications of the Tensas Basin project including the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
All Work Except Tensas River and Below Red River		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 462,000	
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreation facilities.	1,784,000	$1,367,000
Subtotal Non-Federal Costs	$2,246,000	$1,367,000

Local interests estimate that they have expended at least $5,900,000 in the Tensas Basin on the construction of drainage improvements prior to initiation of the Federal project. They estimate they will spend an additional $48,343,000 in construction on connecting ditches, main laterals, and on-farm drainage improvements. This work is being accomplished as the major outlets are opened. Local drainage and levee districts have reported that they expended approximately $5,388,032 on construction and maintenance of drainage improvements between 1950 and 1985.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Tensas River		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 8,402,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	10,971,000	
Pay 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	3,127,000	$ 410,000
Subtotal Non-Federal Costs	$22,500,000	$ 410,000

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Below Red River		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 1,706,000	
Pay 18.9 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	4,276,000	117,000
Subtotal Non-Federal Costs	$ 5,982,000	$ 117,000
Total Non-Federal Costs	$30,728,000	$1,894,000

STATUS OF LOCAL COOPERATION:

Boeuf and Tensas Rivers, Etc.

Formal assurances have been furnished by eight levee and drainage districts to operate and maintain all units of the project except the Kirsch Lake Canal. Assurances for Lake Chicot Pumping Plant required by PL 91-611 and PL 91-646 were accepted 16 April 1976 and a cost sharing agreement with the Chicot County Rural Development Authority was executed 28 May 1976. All lands for Lake Chicot recreation development were furnished by 30 March 1976.

The local development authority, which provided assurances that it would operate and maintain Corps constructed recreation facilities in the Tensas Basin at Lake Chicot, Arkansas, has since notified the Vicksburg District that it is unable to comply with the assurances previously furnished regarding operation and maintenance of two remaining recreation facilities, and that the two remaining facilities are not needed. The local authority has been informed that based on the fact that the two remaining facilities are not needed, all programmed construction is considered complete and payback of their cost share for construction should begin in accordance with executed assurances. The local authority has been unable to identify a source of funds to repay the debt. The matter was elevated to the Governor of Arkansas; however, since the local authority was not sanctioned by the State, the State feels no legal obligation for the payment. A litigation report has been sent to the Department of Justice, 8 October 1997. In letter dated 5 March 1998, the U.S. Attorney General granted authority to terminate collection against the Chicot County Rural Development Authority.

Red River Backwater Area

Formal assurances were received 12 February 1947 and accepted 24 April 1947 for all project features except the Sicily Island Area. Assurances of local cooperation were received on 10 February 1981 and accepted 1 April 1981 for the Sicily Island Area project. The adoption of a constitutional amendment in the general election of 1 February 1972 gave the State of Louisiana and its agencies authority to comply with the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970 (PL 91-646). Supplemental assurances covering the requirements of PL 91-646 for the Larto Lake to Jonesville Area were received 9 May 1972 and accepted 25 May 1972. Supplemental assurances covering the requirements of PL 91-646 for the Tensas-Cocodrie Levee Enlargement were received 1 February 1974 and accepted 7 February 1974. Supplemental assurances covering the requirements of PL 91-646 for the Tensas-Cocodrie Pumping Plant were received 18 August 1975 and accepted 27 August 1975. In March 1997, Larto Lake to Jonesville Levees, Below Larto Lake Area was placed in the inactive category due to lack of local interest.

Tensas River and Below Red River Areas

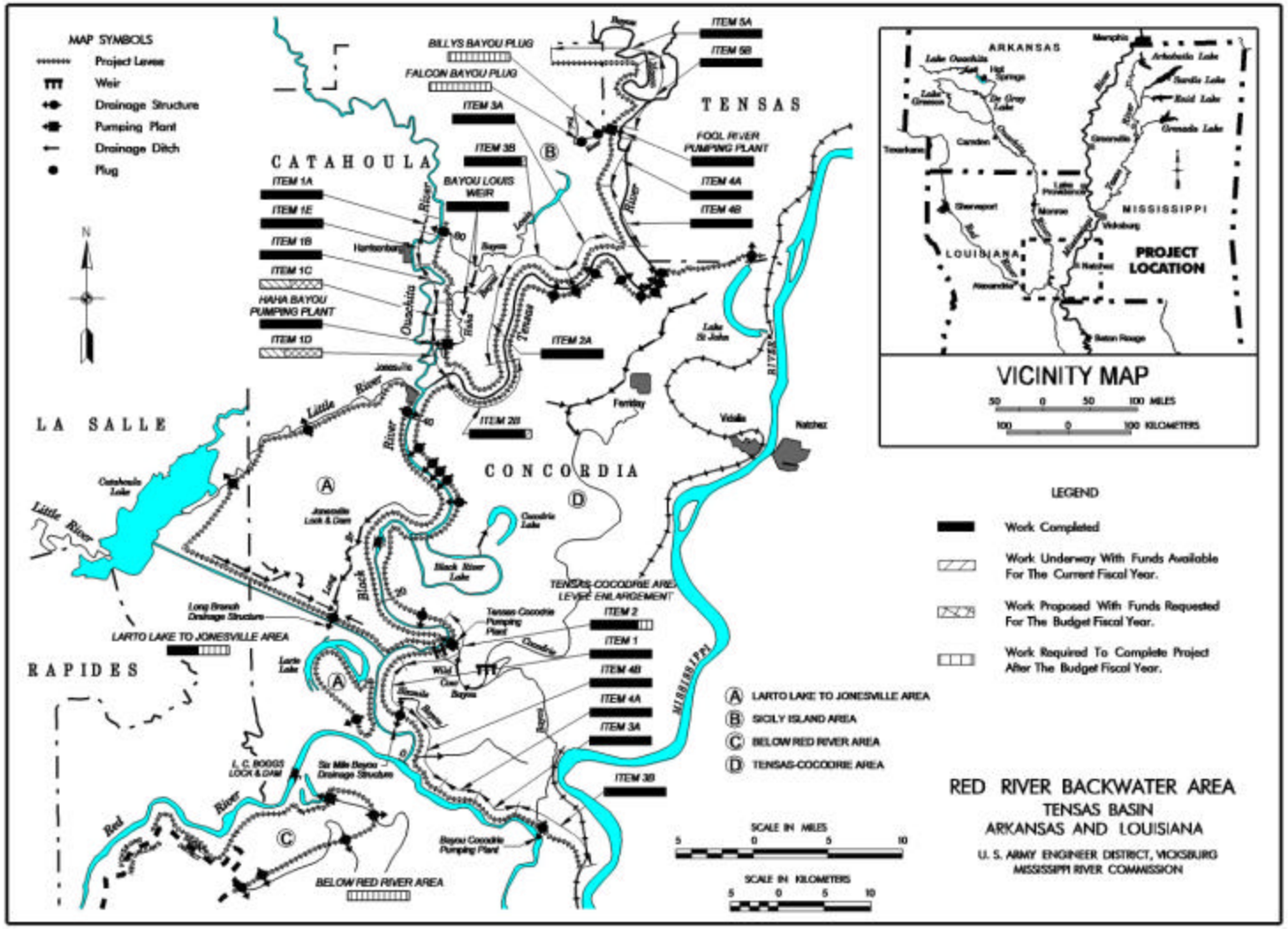
Project Cooperation Agreements for the Tensas River and Below Red River separable elements will be obtained consistent with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986. The local sponsor for the Tensas River and the Below Red River elements of the Fifth Louisiana Levee District, Red River, Atchafalaya, and Bayou Boeuf Levee District, respectively. The local sponsor indicated that they were unable to cost share these elements in accordance with the Water Resources Development Act of 1986. Therefore, the Tensas River separable element and the Below Red River separable element were placed in the inactive category.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal fully funded cost estimate of $477,631,000 is an increase of $885,000 from the latest estimate ($476,746,000) presented to Congress (Fiscal Year 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 397,000
Price Escalation on Real Estate	488,000
Total	$ 885,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency on Tensas River, Louisiana, on 18 May 1984; Lake Chicot Pumping Plant on 29 August 1975; and the Red River Backwater Area, Sicily Island Area, on 21 May 1982; Below Red River Area on 30 October 1981; Tensas-Cocodrie Pumping Plant on 24 September 1976; and Tensas-Cocodrie Levee Item on 24 September 1976.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1947 on Red River Backwater Area and in FY 1948 on Boeuf and Tensas River, etc.


MAP SYMBOLS
Project Levee
Weir
Drainage Structure
Pumping Plant
Drainage Ditch
Plug
CATAHOULA
TENSAS
LA SALLE
CONCORDIA
RAPIDES
BILLYS BAYOU PLUG
FALCON BAYOU PLUG
ITEM 5A
ITEM 5B
ITEM 3A
ITEM 3B
BAYOU LOUIS WEIR
FOOL RIVER PUMPING PLANT
ITEM 4A
ITEM 4B
ITEM 1A
ITEM 1E
ITEM 1B
ITEM 1C
HAHA BAYOU PUMPING PLANT
ITEM 1D
ITEM 2A
ITEM 2B
Hartenberg
Jonesville
Ferriday
Vidalia
Natchez
Little River
Black River
Long
Ouachita
Tensas
Red River
Mississippi
Catahoula Lake
Jonesville Lock & Dam
Cocodrie Lake
Black River Lake
Long Branch Drainage Structure
LARTO LAKE TO JONESVILLE AREA
Larto Lake
Tensas-Cocodrie Pumping Plant
TENSAS-COCODRIE AREA LEVEE ENLARGEMENT
ITEM 2
ITEM 1
ITEM 4B
ITEM 4A
ITEM 3A
ITEM 3B
L. C. BOGGS LOCK & DAM
Six Mile Bayou Drainage Structure
Bayou Cocodrie Pumping Plant
BELOW RED RIVER AREA
Lake St John
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
A LARTO LAKE TO JONESVILLE AREA
B SICILY ISLAND AREA
C BELOW RED RIVER AREA
D TENSAS-COCODRIE AREA
SCALE IN MILES
SCALE IN KILOMETERS
ARKANSAS
MISSISSIPPI
LOUISIANA
PROJECT LOCATION
VICINITY MAP
RED RIVER BACKWATER AREA
TENSAS BASIN
ARKANSAS AND LOUISIANA
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Construction

PROJECT: Louisiana State Penitentiary Levee, Louisiana (Continuing)

LOCATION: The project is located near Angola, Louisiana, in West Feliciana Parish, approximately 40 miles northwest of Baton Rouge, Louisiana and borders the Louisiana State Penitentiary along the Mississippi River and State of Mississippi state line.

DESCRIPTION: The project provides for improving about 12 miles of existing levees along the Mississippi River which currently afford flood protection to the Penitentiary on the left descending bank below Old River. The existing levees are owned and maintained by the State of Louisiana and are substandard with regard to Federal specifications. The project, by improving the existing levees to Federal standards, will reduce the risk of flooding with its attendant property damage and threat to the lives of over 5,100 inmates and about 1,750 employees and residents (527 reside on penitentiary grounds). All work is programmed.

AUTHORIZATION: Water Resources Development Acts of 1986, 1990 and 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 2.7 to 1 at 7-1/8 percent

TOTAL BENEFIT - COST RATIO: 2.7 to 1 at 6-7/8 percent

INITIAL BENEFIT - COST RATIO: 1.37 at 7-5/8 percent (FY 1999)

BASIS OF BENEFIT - COST RATIO: The initial benefit-cost ratio was presented in the January 1982 Final Feasibility Report. The current estimate of 2.7 to 1 results from an update performed.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2001)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$19,500,000		Entire Project	72	Being Determined
Estimated Non-Federal Cost		6,500,000		PHYSICAL DATA		
Cash Contributions	$5,618,000			Levees:		
Other Costs	882,000			Average Height - 15 feet		
				Length - 12.0 miles		
Total Estimated Project Cost		$26,000,000				
Allocations to 30 September 2000		$10,978,000				
Conference Allowance for FY 2001		5,500,000				
Allocation for FY 2001		3,712,000 [1]				
Allocations through FY 2001		14,690,000	75			
Allocation Requested for FY 2002		3,022,000	91			
Programmed Balance to Complete after FY 2002		1,788,000				
Unprogrammed Balance to Complete after FY 2002		0				

[1] Reflects $277,000 reduction assigned as savings and slippage, $1,500,000 reprogrammed from the project and $11,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: Past high-water events have threatened the lives of over 5,100 maximum security inmates and about 1,750 employees and residents (527 reside on the penitentiary grounds) and physical plant valued at $260 million. The need to evacuate during flood events causes severe disruption and serious public threat to residents throughout the state. The 1997 high-water event demonstrated that improvement of the state-constructed levee to Flood Control, Mississippi River and Tributaries standards is imperative. During this event, serious under-seepage (which created numerous sand boils) threatened the integrity of the levee. The levee failure threat precipitated the night-time evacuation of 3,000 inmates housed in dormitories to a "tent city" on high ground within the prison. Emergency levee protection activities and support by the Louisiana National Guard, prison laborers and staff, contractors, and the Corps ultimately preserved the levee. This emergency event cost the State of Louisiana about $2 million. Had the levee failed, the nearly 2,000 prisoners housed in cells and over 500 resident staff could have drowned. Average annual benefits, all for flood control, are $3,496,000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue:	
Levee Downstream of Camp C	$2,186,000
Lands and Damages	17,000
Surveys and Layouts	60,000
Fish and Wildlife Mitigation	35,000
Planning, Engineering and Design	300,000
Supervision and Administration	424,000
Total	$3,022,000

NON-FEDERAL COST: In accordance with the Water Resources Development Acts of 1986 (PL 99-662) and 1990 (PL 101-640), the non-Federal sponsor must comply with the requirements listed below:

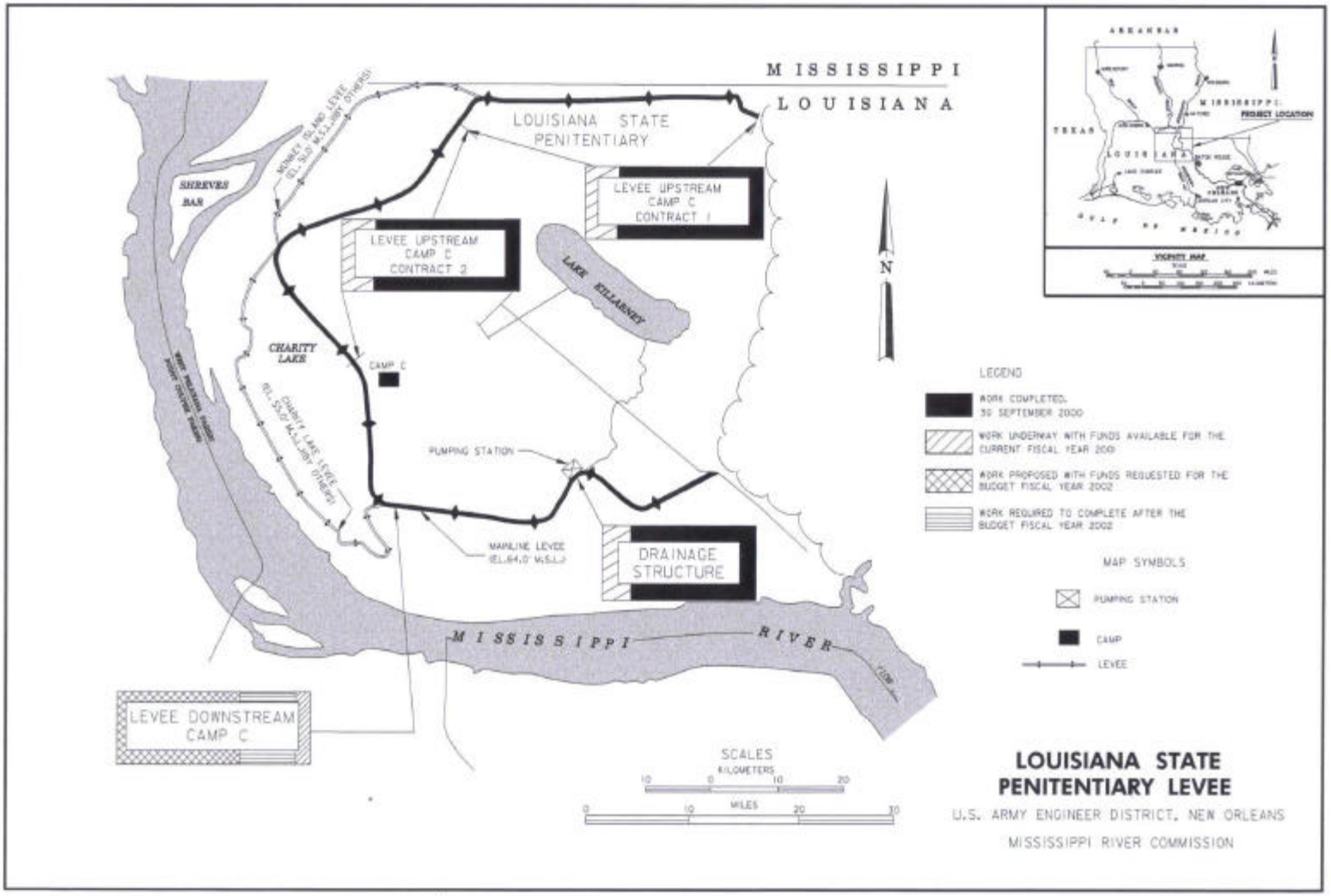
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide without cost to the United States, all rights-of-way for levee foundations and levees.	$ 882,000	
Maintain all flood control works after their completion, except controlling and regulating spillway structures, including special relief levees.		$ 14,000
Pay 22 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103, of the Water Resources Development Act of 1986.	5,618,000	
Total Non-Federal Costs	$ 6,500,000	$ 14,000

STATUS OF LOCAL COOPERATION: The Limited Reevaluation Report was approved on July 2, 1999 and formed the basis for execution of the Project Cooperation Agreement which was approved on July 30, 1999. Three construction contracts were awarded in September 1999. The local sponsor, the Louisiana Department of Public Safety and Corrections has provided cash in the amount of $3,550,000 in addition to furnishing the lands and damages necessary to support their share of the project cost.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $19,500,000 is the same as the latest estimate submitted to Congress (FY 2001).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement was included in the Final Feasibility Report dated January 1982. An Environmental Assessment and three Supplemental Environmental Assessments have been prepared to disclose the potential environmental consequences of the levee project as described in the Limited Reevaluation Report and as being constructed. It was determined that the project would have no adverse impacts upon significant resources, with implementation of the mitigation feature. Findings of No Significant Impact were distributed, which completed the public disclosure of that determination.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1991 and funds to initiate construction were appropriated in FY 1998. Water Resources Development Act of 1999 provides for the sponsor to receive credit for work accomplished in the project area since authorization. Documentation to support qualified creditable work has been requested from the Louisiana Department of Public Safety and Corrections. The estimated amount of the creditable work is $3,000,000. After submission of the creditable amount to both Committees on Appropriations, the Project Cooperation Agreement will be revised, thus the credit will probably be issued in FY 2002.


MISSISSIPPI
LOUISIANA
LOUISIANA STATE PENITENTIARY
LEVEE UPSTREAM CAMP C CONTRACT 1
LEVEE UPSTREAM CAMP C CONTRACT 2
LAKE KILLARNEY
SHREVES BAR
CHARITY LAKE
CAMP C
PUMPING STATION
MAINLINE LEVEE
DRAINAGE STRUCTURE
MISSISSIPPI RIVER
LEVEE DOWNSTREAM CAMP C
N
LEGEND
WORK COMPLETED 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE AFTER THE BUDGET FISCAL YEAR 2002
MAP SYMBOLS
PUMPING STATION
CAMP
LEVEE
SCALES
KILOMETERS
MILES
ARKANSAS
TEXAS
PROJECT LOCATION
VICINITY MAP
LOUISIANA STATE PENITENTIARY LEVEE
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Construction

PROJECT: Mississippi Delta Region, Louisiana (Salinity Control Structures) (Continuing)

LOCATION: The project is located in the lower Mississippi River delta region in Plaquemines and St. Charles Parishes, Louisiana. The Caernarvon structure is located in Plaquemines Parish on the east bank of the Mississippi River in the vicinity of Caernarvon, Louisiana. The Davis Pond structure is located in St. Charles Parish on the west bank just downstream of Luling, Louisiana.

DESCRIPTION: The plan of improvement originally consisted of four salinity control structures (Caernarvon, Davis Pond, Homeplace, and Bohemia) with appurtenant levees and channels, to divert freshwater from the Mississippi River into coastal bays and marshes for fish and wildlife restoration. The Caernarvon and Davis Pond salinity control structures are programmed, including post-construction environmental monitoring which will continue for four years after completion of construction of each structure. The Homeplace and Bohemia structures were deauthorized on 1 May 1997.

AUTHORIZATION: Flood Control Act of 1965, and Water Resources Development Acts of 1974, 1986 and 1996.

REMAINING BENEFIT - REMAINING COST RATIO: 12.9 to 1 at 8-7/8 percent (Davis Pond).

TOTAL BENEFIT - COST RATIO: 2.8 to 1 at 3-1/4 percent for Caernarvon, and 5.6 to 1 at 8-7/8 percent for Davis Pond.

INITIAL BENEFIT - COST RATIO: 3.4 to 1 at 3-1/4 percent for Caernarvon (Fiscal Year 1969), and 3.0 to 1 at 8-1/8 percent for Davis Pond (Fiscal Year 1983).

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluations: Caernarvon - approved in November 1985, at 1985 price levels; and Davis Pond - approved in September 1992 at 1990 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$99,800,000	
Estimated Non-Federal Cost		33,200,000	
Cash Contribution	$25,971,000		
Other Costs	7,229,000		
Total Estimated Project Cost		$133,000,000	
Allocations to 30 September 2000		$85,982,000[1]	
Conference Allowance for FY 2001		5,000,000[2]	
Allocation for FY 2001		6,738,000	
Allocations through FY 2001		92,720,000	93
Allocation Requested for FY 2002		1,600,000	94
Programmed Balance to Complete After FY 2002		5,480,000	
Unprogrammed Balance to Complete After FY 2002		0	

STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Caernarvon Structure	100	February 1997
Davis Pond Structure	90	Being Determined
Entire Project	95	Being Determined

PHYSICAL DATA

	Caernarvon	Davis Pond
Lands and Damages	2,092 acres	10,213 acres
Relocations		
Roads/Bridges	1,600 linear feet	2,920 linear feet
Railroads	2,500 linear feet	3,600 linear feet
Utilities	4,600 linear feet	7,980 linear feet
Fish & Wildlife Facilities		
Structures	5 box culverts	4 box culverts
	15 feet by 15 feet	14 feet by 14 feet
	8,000 cubic feet per second	10,650 cubic feet per second

[1] Includes $58,000 expended on Bohemia prior to 1970.
[2] Reflects $252,000 reduction assigned as savings and slippage, $2,000,000 reprogrammed to the project, and $10,000 rescinded in accordance with the Congressional Appropriations Act, 2001.

	Caernarvon	Davis Pond
Pumping Stations		1 pumping station, 570 cfs capacity
Channels	1.7 miles	2.2 miles
Levees	3.7 miles	16.9 miles

JUSTIFICATION: The project will divert freshwater from the Mississippi River to coastal bays and marshes for fish and wildlife restoration. Benefits will include restoration of former ecological conditions by controlling salinity and supplementing nutrients. The bays are important to oyster production and as breeding areas for shrimp and food fishes, while the marsh areas produce natural food for fur-bearing animals and migratory waterfowl. A total of 981,500 acres of marshes and bays will be benefitted. The diversions will take place under regulated conditions developed from monitoring the impact on the environment and the fish and wildlife. Average annual benefits are as follows:

Annual Benefits	Amount
Fish and Wildlife	
Caernarvon	$ 8,706,000
Davis Pond	14,997,000
Recreation	
Caernarvon	449,000
Davis Pond	298,000
Total	$24,450,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Davis Pond

Complete:	
Evangeline Relocation	$ 518,000
Louisiana Power and Light Relocation	136,000
Union Pacific Railroad Relocation	221,000
Planning, Engineering and Design	625,000
Supervision and Administration	100,000
Total	$1,600,000

NON-FEDERAL COST: Based on the cost sharing concept adopted for the Caernarvon Structure, the non-Federal sponsor will voluntarily contribute 25 percent of the first cost of the project as well as the required 25 percent of the cost of operating, maintaining, repairing, rehabilitating, and replacing the project after completion.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Contribute 25 percent of the costs allocated to fish and wildlife restoration and pay 25 percent of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities.		
Davis Pond	$26,700,000	$174,800
Caernarvon	6,500,000	69,000
Total Non-Federal Costs	$33,200,000	$234,800

The non-Federal sponsor for the Caernarvon and Davis Pond Structures has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement for the Caernarvon Structure was signed by the State of Louisiana on 2 June 1987 and by the Assistant Secretary of the Army for Civil Works on 10 June 1987. The current non-Federal cost estimate of $6,500,000, which includes a cash contribution of $5,468,000, is an increase of $375,000 from the non-Federal cost estimate of $6,125,000 noted in the Project Cooperation Agreement, which included a cash contribution of $6,125,000. In a letter dated 26 February 1987, the non-Federal sponsor indicated that it is financially capable and willing to contribute the increased non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment. The State of Louisiana has provided cash contributions of $4,818,000 through 30 September 1998 for the Caernarvon Structure. The State has also performed biological monitoring, with an estimated value of $1,044,000. The Project Cooperation Agreement for the Davis Pond Structure was signed 17 April 1993, by the State of Louisiana and for the Acting Assistant Secretary of the Army. The Water Resources Development Act of 1996 authorized the Corps to credit the State of Louisiana for up to $7,500,000 in oyster relocation costs. We are currently preparing an amendment to the Davis Pond PCA to incorporate these requirements. We anticipate execution of the amendment in June 2001. The State of Louisiana plans to fund both the construction and the operations and maintenance of the project through the Wetlands Conservation and Restoration Trust Fund. Our recent analysis of the non-Federal sponsor's financial capability affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment. The State of Louisiana has provided cash contributions of $19,253,000 through 30 September 2000, for the Davis Pond Structure.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $99,800,000 is an increase of $300,000 over the latest estimate ($99,500,000) submitted to Congress (Fiscal Year 2001). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 300,000
Total	$ 300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement for the Louisiana Coastal Area Study was filed with the Environmental Protection Agency on 5 April 1985. This statement is adequate for the Caernarvon and Davis Pond structures.

OTHER INFORMATION: Local interests, during the period 1954-1970, spent an estimated $420,000 for construction and maintenance of freshwater diversion structures and channel improvements on the east bank of the Mississippi River in the vicinity of Bohemia and Bayou Lamoque.

Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1969 and funds to initiate construction were appropriated in Fiscal Year 1987.

SUMMARIZED FINANCIAL DATA:

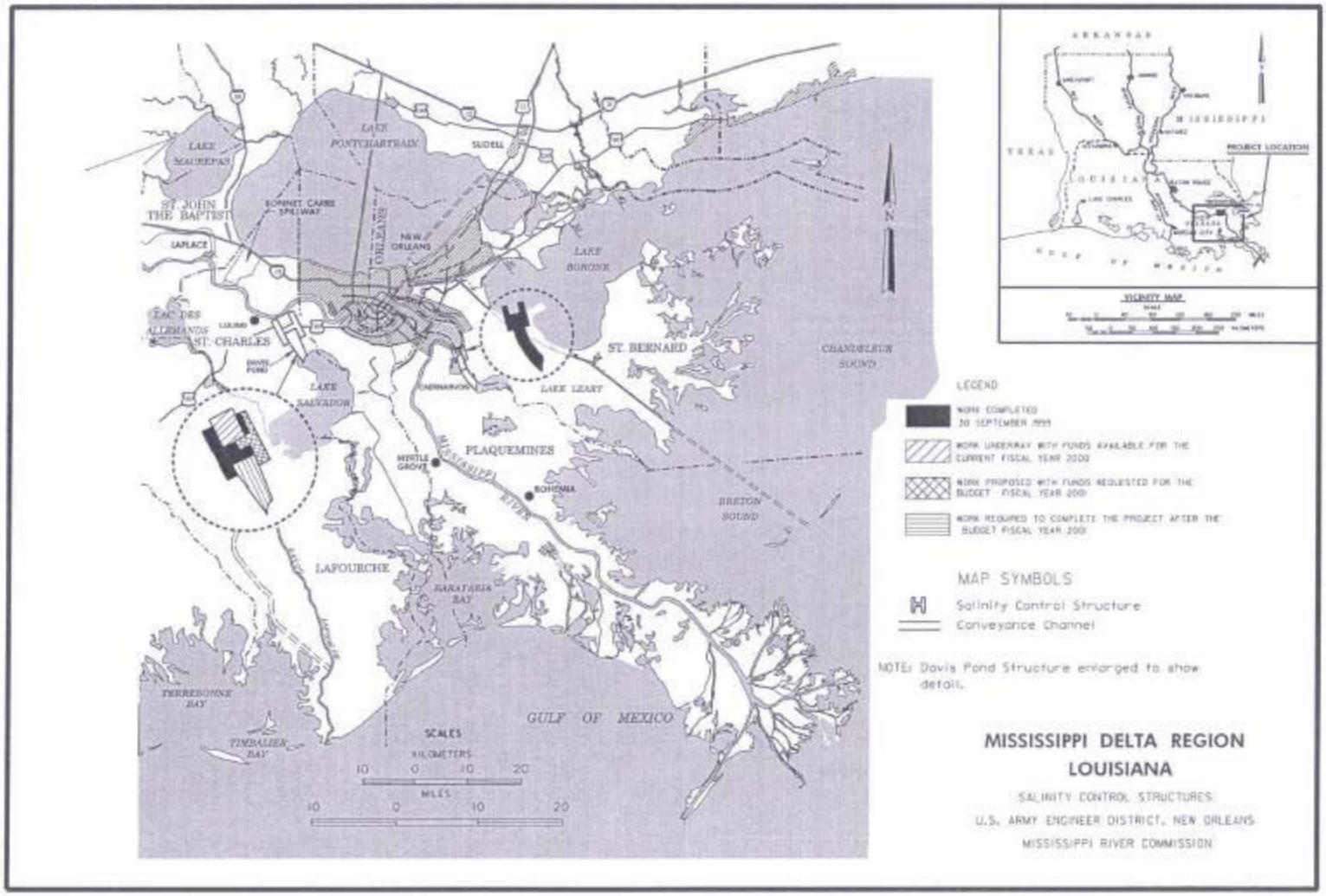
Davis Pond:		
Estimated Federal Cost		$80,100,000
Estimated Non-Federal Cost		26,700,000
Cash Contributions	$20,503,000	
Other Costs	6,197,000	
Total Estimated Project Cost		$106,800,000
Caernarvon:		
Estimated Federal Cost		$19,700,000
Estimated Non-Federal Cost		6,500,000
Cash Contributions	$ 5,468,000	
Other Costs	1,032,000	
Total Estimated Project Cost		$26,200,000

REMAINING BENEFIT - REMAINING COST RATIO:

Davis Pond: 12.9 to 1 at 8-7/8 percent.
Caernarvon: Not applicable because construction is complete.

TOTAL BENEFIT - COST RATIO:

Davis Pond: 5.6 to 1 at 8-7/8 percent.
Caernarvon: Not applicable because construction is complete.


LAKE MAUREPAS
LAKE PONTCHARTRAIN
SLIDELL
ST. JOHN THE BAPTIST
BONNET CARRE SPILLWAY
LAPLACE
NEW ORLEANS
LAKE BORGNE
LAC DES ALLEMANDS
ST. CHARLES
LULING
DAVIS POND
LAKE SALVADOR
LAKE LEAFY
ST. BERNARD
CHANDELEUR SOUND
PLAQUEMINES
MYRTLE GROVE
BOHEMIA
BRETON SOUND
LAFOURCHE
BARATARIA BAY
TERREBONNE BAY
TIMBALIER BAY
GULF OF MEXICO
SCALES
KILOMETERS
MILES
ARKANSAS
TEXAS
LOUISIANA
MISSISSIPPI
PROJECT LOCATION
VICINITY MAP
LEGEND
WORK COMPLETED 30 SEPTEMBER 1999
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2000
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2001
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2001
MAP SYMBOLS
Salinity Control Structure
Conveyance Channel
NOTE: Davis Pond Structure enlarged to show detail.
MISSISSIPPI DELTA REGION
LOUISIANA
SALINITY CONTROL STRUCTURES
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Construction

PROJECT: Mississippi and Louisiana Estuarine Areas, Mississippi and Louisiana (Continuing)

LOCATION: The project is located in St. Charles Parish, Louisiana about 33 miles upstream of the City of New Orleans, Louisiana, at the upstream end of the Bonnet Carre' spillway structure.

DESCRIPTION: The project plan consists of six-gated 18' x 18' box culverts with associated inflow and outflow channels designed to divert water from the Mississippi River into Lake Pontchartrain. A sediment trap will be located 2,300 feet downstream from the diversion structure. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1988.

REMAINING BENEFIT-REMAINING COST RATIO: 1.1 to 1 at 8-7/8 percent.

TOTAL BENEFIT-COST RATIO: 1.2 to 1 at 8-7/8 percent.

INITIAL BENEFIT-COST RATIO: 1.2 to 1 at 8-5/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in February 1991, at 1990 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 71,300,000		Entire Project	7	Being Determined
Estimated Non-Federal Cost		26,800,000				
Cash Contribution	$ 23,715,000					
Other Costs	3,085,000[1]					
Total Estimated Project Cost		$ 98,100,000				
Allocations to 30 September 2000		7,940,000				
Conference Allowance for FY 2001		100,000				
Allocation for FY 2001		95,000[2]				
Allocations through FY 2001		8,035,000	11			
Allocation Requested for FY 2002		25,000	11			
Programmed Balance to Complete after FY 2002		63,240,000				
Unprogrammed Balance to Complete after FY 2002		0				

PHYSICAL DATA

Relocations:
U.S. Highway 61 Bridge and LA Parish Road 12
2 Railroad Bridges
2 Power lines, 9 pipelines, 1 waterline,
4 fiber optic cables

Fish and Wildlife Facilities:
6 box culverts 18 feet by 18 feet
30,000 cubic feet per second

Channels: 6.0 miles with a depth of about 30 ft

Levees: 0.4 miles

JUSTIFICATION: The productivity of fish and wildlife is being adversely affected by wetland loss. The natural processes of subsidence, compaction, erosion, and saltwater intrusion, which have been accelerated by channel dredging and levee building are major contributors to the land loss. The project area includes Lakes Maurepas, Pontchartrain, and Borgne, Mississippi Sound and adjacent wetlands that are influenced by these water bodies. The estuaries and wetlands, which are among the most productive in the nation in terms of fish and wildlife resources, make a significant contribution to the overall economies of Louisiana and Mississippi. Historically, a large portion of Louisiana's $500 million and Mississippi's $68 million commercial fish and wildlife harvests have been from the project area. The contribution that the project area makes to commercial fish and wildlife harvest has declined due to increased salinities and land loss. The project would reduce saltwater intrusion and significantly increase the production of oyster, white shrimp, blue crabs, croakers and menhaden.

[1] Not creditable to the State's share of the project costs since utility relocations are the responsibility of the utility owners.
[2] Reflects $5,000 reduction assigned as savings and slippage and $200 rescinded in accordance with the Consolidated Appropriations Act, 2001.

About 10,500 acres of marsh and wooded swamps adjacent to Lakes Maurepas and Pontchartrain would be saved over the 50-year project life since the freshwater nutrients and sediments would result in a healthier marsh and reduce land loss. Oyster production is estimated to be increased by 5.7 million pounds annually in Louisiana and 1.9 million pounds annually in Mississippi. The average annual benefits, all commercial fish and wildlife enhancement, resulting from environmental restoration, are $9,123,000.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Planning, Engineering and Design	$ 25,000
Total	$ 25,000

NON-FEDERAL COST: Based on the cost sharing concept adopted for similar projects, the non-Federal sponsor will contribute 25 percent of the first cost of the project, as well as the required 25 percent of operating, maintaining, repairing, rehabilitating, and replacing the project after completion. The non-Federal costs will be shared between the states of Louisiana (20 percent) and Mississippi (5 percent), based on the estimated benefits to accrue to each state.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Pay 25 percent of the first costs allocated to fish and wildlife restoration, and pay 25 percent of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities.	$26,800,000	$246,000
Total Non-Federal Costs	$26,800,000	$246,000

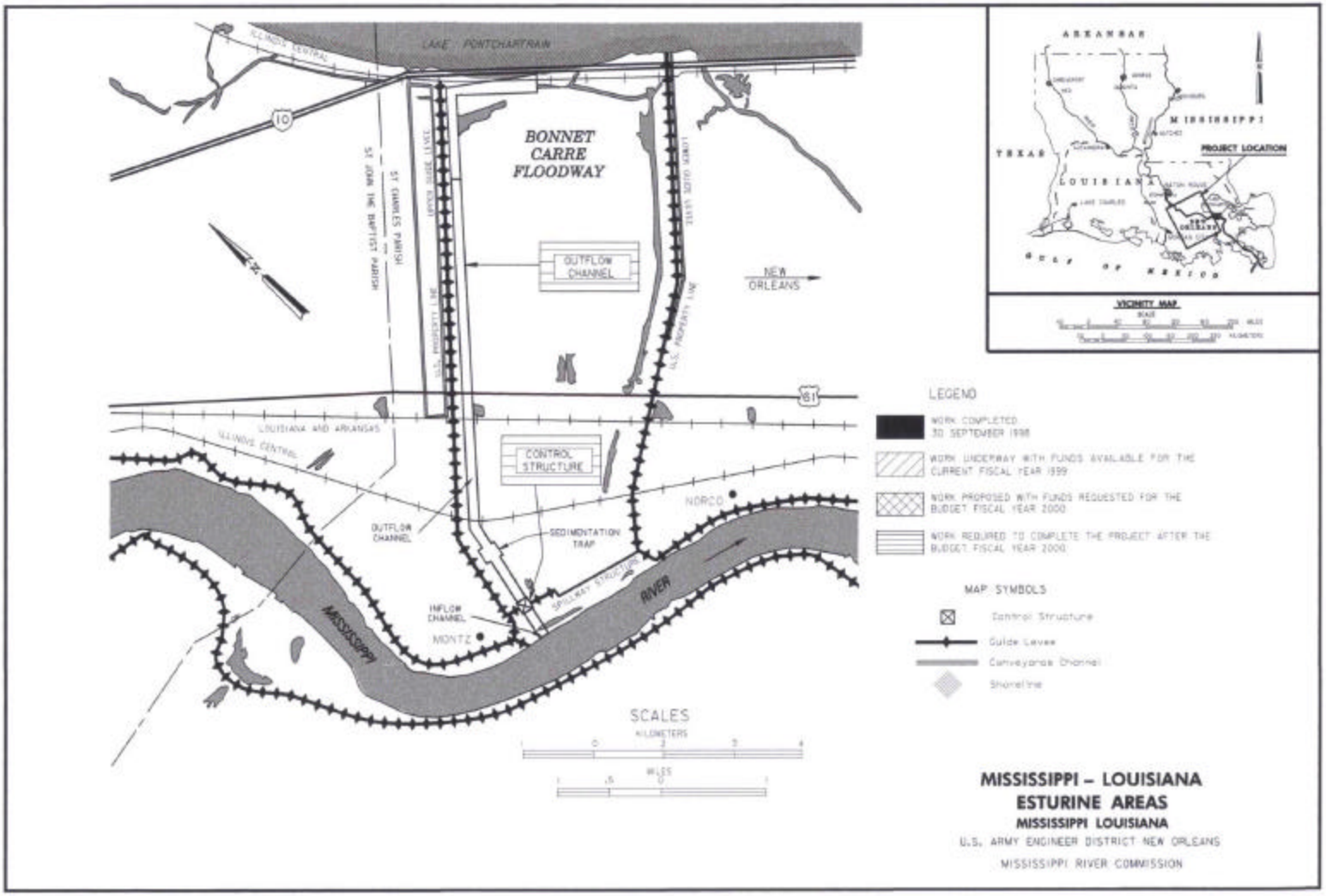
STATUS OF LOCAL COOPERATION: A two and a half year reanalysis of the project was led by the Environmental Protection Agency in response to a January 1994 letter from Representative Robert Livingston. The reanalysis involved representatives of the Environmental Protection Agency, the Corps of Engineers, the States of Louisiana and Mississippi, and two environmental groups. Despite the fact the reanalysis led to a Corps recommendation that negotiations resume on the Project Cooperation Agreement, the State of Louisiana withdrew its support of the project in July 1996. The State of Mississippi continues to support the project. In the House Conference Report 104-782, the Conference Committee directed the Corps of Engineers to submit a report on the project status to Congress, and to provide its assessment of whether the project, as currently formulated, would achieve its goals. This report was submitted to Congress on 5 May 1997. Based on the findings of all the various studies to date, the Corps of Engineers has determined that the project, as authorized, would achieve its objectives in a timely and cost effective manner.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $71,300,000 is a decrease of $3,300,000 from the latest estimate ($74,600,000) presented to Congress (Fiscal Year 2001). This change includes the following item.

Item	Amount
Price Escalation on Construction Features	- $3,300,000
Total	- $3,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency on 27 April 1985. The Finding of No Significant Impact was signed on 11 July 1996.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1985, and funds to initiate construction were appropriated in Fiscal Year 1990.


LAKE PONTCHARTRAIN
ILLINOIS CENTRAL
BONNET CARRE FLOODWAY
OUTFLOW CHANNEL
NEW ORLEANS
ST. CHARLES PARISH
ST. JOHN THE BAPTIST PARISH
LOUISIANA AND ARKANSAS
CONTROL STRUCTURE
NORCO
SEDIMENTATION TRAP
INFLOW CHANNEL
MONTZ
MISSISSIPPI
RIVER
SCALES
KILOMETERS
MILES
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
PROJECT LOCATION
GULF OF MEXICO
VICINITY MAP
LEGEND
WORK COMPLETED 30 SEPTEMBER 1998
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 1999
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2000
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2000
MAP SYMBOLS
Control Structure
Guide Levee
Conveyance Channel
Shoreline
MISSISSIPPI – LOUISIANA
ESTURINE AREAS
MISSISSIPPI LOUISIANA
U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
MISSISSIPPI RIVER COMMISSION

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Construction

PROJECT: Yazoo Basin, Mississippi (Continuing)

LOCATION: The project is located in Mississippi and extends generally from Memphis, Tennessee, southward to Vicksburg, Mississippi, and from the escarpment at Greenwood, westward to the Mississippi River. The counties included are DeSoto, Tunica, Tate, Coahoma, Quitman, Panola, Bolivar, Sunflower, Tallahatchie, Yalobusha, Leflore, Grenada, Carroll, Washington, Humphrey, Holmes, Issaquena, Sharkey, Yazoo, and Warren.

DESCRIPTION: The project provides for protection against headwater floods of streams in the basin; against backwater floods of the Mississippi; and for major drainage in the delta area. The Yazoo Basin can be readily divided into three major flood control components (the Yazoo Headwater, the Yazoo Backwater, and the Big Sunflower River, etc., Including Steele Bayou), the Streambank Erosion Control Evaluation and Demonstration Program, which has been completed, and the Demonstration Erosion Control Program. All of the work in the project is programmed except for remaining recreation facilities at Grenada Lake pending development of cost sharing agreements with local interests for construction and non-Federal operation and maintenance consistent with projects for which recreation facilities are being constructed under the provisions of the Federal Water Project Recreation Act of 1965 (Public Law 89-72), as amended; remaining work on Rocky Bayou pending a decision to continue construction in accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986.

AUTHORIZATION: Flood Control Acts of 1936, 1937, 1938, 1941, 1944, 1946, 1950, 1962, 1965, and the Water Resources Development Acts of 1974, 1986, and 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 3.3 to 1 at 2-1/2 percent.

TOTAL BENEFIT-COST RATIO: 4.5 to 1 at 2-1/2 percent.

INITIAL BENEFIT-COST RATIO: 2.1 to 1 at 2-1/2 percent (FY 1967).

BASIS OF BENEFIT-COST RATIO: Benefits and costs for the Yazoo Backwater Pumping Plant are from the latest evaluation approved in July 1983 at 1974 price levels. Benefits for the remaining features of the Yazoo Basin project are based on "Upper Steele Bayou Project Reformulation Study," December 1992; and "Upper Yazoo Projects Reformulation Study," December 1993. Costs are based on October 1996 costs deflated to 1974 price levels.

SUMMARIZED FINANCIAL DATA			
Estimated Federal Cost			$1,821,029,000
Programmed Construction		$1,802,362,000	
Unprogrammed Construction		18,667,000	
Estimated Non-Federal Cost			$ 5,582,000
Programmed Construction		$888,000	
Cash Contributions	$ 804,000		
Other Costs	84,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		$4,694,000	
Cash Contributions	$ 1,583,000		
Other Costs	3,111,000		
Total Estimated Programmed Construction Cost			$1,803,250,000
Total Estimated Unprogrammed Construction Cost			23,361,000
Total Estimated Project Cost			1,826,611,000

STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULED
Yazoo City	100	---
Belzoni	100	---
Will M. Whittington Auxiliary Channel	99	Indefinite
Sardis Lake	100	---
Arkabutla Lake	100	---
Enid Lake	100	---
Grenada Lake	98	Indefinite
Greenwood	100	---
Streambank Erosion Control Evaluation and Demonstration	100	---
Upper Yazoo Projects	35	Being determined
Main Stem	73	Being determined
Tributaries	62	Being determined
All Work Except Ascalmore-Tippo and Opossum Bayous	62	Being determined
Ascalmore-Tippo and Opossum Bayous	71	Being determined
Demonstration Erosion Control	99	Being determined
Big Sunflower River, Etc., Including Steele Bayou	90	Being determined

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST
Allocations to 30 September 2000	$938,030,000	
Conference Allowance for FY 2001	34,200,000	
Allocation for FY 2001	31,405,000 1/	
Allocations Thru FY 2001	969,435,000	53
Allocations Requested for FY 2002	$ 8,550,000	54
Programmed Balance to Complete After FY 2002	824,377,000	
Unprogrammed Balance to Complete After FY 2002	18,667,000	

STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULED
Yazoo Backwater	23	Being Determined
Yazoo Backwater Including Muddy Bayou Control Structure	51	Being Determined
Rocky Bayou Separable Element	27	Indefinite
Backwater Pumping Plant Separable Element	5	Indefinite
Yazoo Backwater Mitigation Separable Element	100	30 Sep 2001
Reformulation Study	60	Being Determined
Entire Project	65	Being Determined

PHYSICAL DATA

Yazoo City:
- Lands and Damages: 361 acres
- Relocations: 1.1 miles roads
- Levees: 4.1 miles
- Channels: 1.6 miles
- Pumping Plant: One 540 cubic feet per second (cfs)

Belzoni:
- Lands and Damages: 3.3 acres
- Levees: 0.6-mile levee and 0.5-mile floodwall

Will M. Whittington Auxiliary Channel:
- Lands and Damages: 11,996 acres
- Relocations:
  - Roads: 3.0 miles and 12 bridges
  - Railroads: 0.4 mile and 1 bridge
- Fish and Wildlife Facilities:
  - 1 water control structure
- Channels: 30.8 miles
- Levees: 61.3 miles

1/ Reflects $1,725,000 reduction for savings and slippage, $1,000,000 reprogrammed from the project, and $70,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

Sardis Lake:
- Lands and Damages: 98,584 acres
- Relocations:
  - Roads: 3.2 miles and 1 bridge
  - Railroads: 3.2 miles and 1 bridge
- Reservoir: 58,500-acre pool area
- Dam: Earthfill, 15,300 feet long; 97 feet average height
- Roads, Railroads, and Bridges: 7.6 miles roads and 8 bridges
- Recreation Facilities: 19 sites
- Buildings: 4

Arkabutla Lake:
- Lands and Damages: 52,629 acres
- Relocations:
  - Roads: 5.5 miles and 5 bridges
  - Railroads: 5.8 miles and 2 bridges
- Reservoir: 33,400-acre pool area
- Dam: Earthfill, 11,500 feet long; 67 feet average height
- Roads: 4 miles
- Channel and Canals: 1.5 miles
- Recreation Facilities: 11 sites
- Buildings: 4

Enid Lake:
- Lands and Damages: 43,870 acres
- Relocations:
  - Roads: 19.1 miles and 9 bridges
- Reservoir: 28,000-acre pool area
- Dam: Earthfill, 8,400 feet long; 85 feet average height
- Roads: 1 mile
- Recreation Facilities: 10 sites
- Buildings: 4

Grenada Lake:
- Lands and Damages: 90,356 acres
- Relocations:
  - Roads: 83.2 miles and 47 bridges
  - Railroads: 21.6 miles and 21 bridges
  - Cemetery: 1
- Reservoir: 64,600-acre pool area
- Dam: Earthfill, 13,900 feet long; 80 feet average height
- Roads: 4.5 miles and 1 bridge
- Recreation Facilities: 20 sites
- Buildings: 4

Greenwood:
- Lands and Damages: 1,435 acres
- Relocations:
  - Roads: 0.5 mile and 4 bridges
- Bank Stabilization: 0.8 mile
- Channels: Big Sand Creek Diversion (2.9 miles)
- Levees and Floodwalls: 28.4 miles, height 4-6 feet
- Pumping Plants: Storm Water: 3-capacity 67, 89, and 675 cfs

Upper Yazoo Projects:
- Lands and Damages: 24,171 acres
- Relocations:
  - Roads: 8.0 miles and 1 bridge
- Utilities:
  - 16 pipelines
  - 20 power lines
  - 9 telephone lines
- Channels: 2 cutoffs, 197.4 miles; bottom width of 75 feet to 150 feet
- Levees: 26.6 miles levees and 0.2-mile floodwall, average height 3.5 feet
- Flood Control and Diversion Structure: One control structure with three 32-foot-wide gate bays, 66 water control structures, and 2 sedimentation structures
- Bank Stabilization: 6.8 miles

Main Stem:
- Lands and Damages: 16,560 acres
- Relocations:
  - Roads: 28.9 miles and 10 bridges
  - Railroads: 1.2 miles
- Channels: 43 cutoffs, 251 miles channel clearing and 21 miles channel enlargement (total miles 288.3)
- Levees: 156.1 miles; variable height, 3 to 28 feet
- Bank Stabilization: 1.8 miles

Tributaries:
- All Work Except Ascalmore-Tippo and Opossum Bayous
  - Lands and Damages: 40,177 acres
  - Relocations:
    - Roads: 7.3 miles and 57 bridges
    - Railroads: 2.2 miles and 6 bridges
  - Channels: 442.6 miles
  - Levees: 147.8 miles, variable height, 3 to 25 feet
  - Pumping Plant: 1 storm water (McKinney Bayou) 250 cfs second; 3 Pelucia Creek Pumping Plants, 75, 15, and 10 cfs
  - Bank Stabilization: 8.2 miles
    - 9 Grade Control Structures

Ascalmore-Tippo and Opossum Bayous:

- Lands and Damages: 2,601 acres
- Relocations:
  - Roads: 11 bridges
  - Railroads: 1 bridge
- Channels: 50.6 miles
- Levees: 12.6 miles; average height 7 feet

Demonstration Erosion Control:

- Abiaca Creek Watershed:
  - Bank Stabilization 1.0 miles
  - Levees 9.5 miles
  - Major Grade Control Structures 3
  - Minor Grade Control Structures 9
- Batupan Bogue Watershed:
  - Bank Stabilization 15.5 miles
  - Major Grade Control Structures 29
  - Minor Grade Control Structures 42
- Black Creek Watershed:
  - Bank Stabilization 28.4 miles
  - Levees 1.5 miles
  - Floodwater Retarding Structures 2
  - Major Grade Control Structures 9
  - Minor Grade Control Structures 130
- Burney Branch Watershed:
  - Channel Improvement 0.3 mile
- Cane-Mussacuna Watershed:
  - Minor Grade Control Structures 11
  - Major Grade Control Structures 4
  - Bank Stabilization 0.8 mile

Demonstration Erosion Control:

- Coldwater River Watershed:
  - Bank Stabilization 9.7 miles
  - Major Grade Control Structures 26
  - Minor Grade Control Structures 204
- Hickahala-Senatobia Watershed:
  - Bank Stabilization 2.8 miles
  - Channel Improvement 13.9 miles
  - Major Grade Control Structures 28
  - Minor Grade Control Structures 73
- Hotophia Creek Watershed:
  - Bank Stabilization 4.0 miles
  - Major Grade Control Structures 9
  - Minor Grade Control Structures 20
- Hurricane-Wolf Watershed:
  - Bank Stabilization 3.2 miles
  - Major Grade Control Structures 3
  - Minor Grade Control Structures 37
- Long Creek Watershed:
  - Bank Stabilization 7.2 miles
  - Major Grade Control Structures 8
  - Minor Grade Control Structures 11
- Otoucalofa Creek Watershed:
  - Bank Stabilization 7.5 miles
  - Channel Improvement 0.8 mile
  - Major Grade Control Structures 3
  - Minor Grade Control Structures 17
  - Channel Improvement 0.8 mile
- Pelucia Creek Watershed:
  - Major Grade Control Structures 1
  - Bank Stabilization 1.4 miles
- Yalobusha Watershed:
  - Technical Work Plan under Preparation
  - Major Grade Control Structures 5
  - Minor Grade Control Structures 40

Big Sunflower River, Etc., Including Steele Bayou:
- Lands and Damages: 34,974 acres
- Relocations:
  - Roads: 2.0 miles and 68 bridges
  - Railroads: 1 bridge
  - Fish and Wildlife Facilities: 9 water control structures
- Channels: (miles)

Big Sunflower River	216
Quiver River	81
Steele Bayou	100
Deer Creek	7
Bogue Phalia	95
Little Sunflower River	28
Hushpuckena River	28
Tributaries	172
Gin and Muddy Bayous	12.3
Total	739.3

  - 1 channel weir
- Levees: 9.0 miles, average height 7 feet; 4 gated culverts and 4 fixed crest spillways
- Bank Stabilization: 1.0 mile

Yazoo Backwater Pumping Plant:
- Lands and Damages: 378 acres project lands
- Relocations:
  - Roads: 1.0 mile and 1 bridge
- Channels: 1.9 miles
- Levees: 0.5 miles, variable height 7 to 30 feet
- Pumping Plant: One 10,000 cfs

Yazoo Backwater Including Muddy Bayou Control Structure:
- Lands and Damages: 30,203 acres
- Relocations:
  - Roads: 24.3 miles and 2 bridges
  - Railroads: 0.8 mile and 1 bridge
- Fish and Wildlife Facilities:
  - 2 Water Control Structures
  - 7 Greentree Reservoirs
  - 5 Slough Control Areas
  - 4 Pumping Stations
- Channels: 38.9 miles, average depth, 25 feet
- Levees: 78.5 miles levees, variable height, 5 to 30 feet; 5 floodgates, openings vary in size from 72 square feet to 2,700 square feet

Yazoo Backwater Including Muddy Bayou Control Structure:
- Recreation Facilities: 2 boat-launching ramps
- Floodway Control and Diversion Structures:
  - Muddy Bayou Control Structure (opening size 480 square feet)

Rocky Bayou Area:
- Lands and Damages: 1,140 acres
- Relocations:
  - Roads: 7.0 miles
- Levees: 19.0 miles

Yazoo Backwater, Fish and Wildlife Mitigation:
- Lands and Damages: 8,807 acres

Streambank Erosion Control Evaluation and Demonstration:
- Bank Stabilization: 65.0 miles

JUSTIFICATION: The Yazoo Headwater feature will protect 1,209,000 acres against overflow, substantially benefit 303,000 acres and protect Greenwood, Belzoni, Yazoo City and numerous smaller communities. Channel improvement work on the Big Sunflower River and its tributaries will protect 195,000 acres against the design flood and an additional 395,000 acres will be benefited because of improved drainage conditions. Also, approximately 368,000 acres in the Yazoo Backwater Area will be protected against all but the larger floods and substantial benefits will accrue to an additional 224,000 acres from improved drainage. Had there been no protection in 1958, the floods of April-June and September would have caused damages amounting to $22,821,000. Should these floods recur under present conditions, but with the flood control works assumed complete, damages amounting to $181,779,000 would be prevented. In addition, the four Yazoo Basin lakes are being used extensively for recreation. Visitor-day attendance increased from 2,857,000 in calendar year 1958 to 12,002,000 visitor days in FY 1996. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	$113,791,000
Fish and Wildlife	7,142,000
Recreation	18,557,000
Area Redevelopment	1,234,000
Bank Stabilization Works	1,478,000
Total	$142,202,000

In recent years, considerable opposition developed to the Upper Yazoo Basin projects based on environmental concerns and concerns of landowners regarding land takings. To respond to these concerns and because the project plans were developed in the 1960's, a decision was made in December 1988 to reanalyze the remaining unconstructed portions of the project in accordance with the current Principles and Guidelines for planning water resources. This is necessary to determine the current advisability of the remaining work with respect to environmental effects and economic justification. Concurrently, former Governor Ray Mabus formed an Advisory Committee to advise him on how the controversial issues might be resolved. As a result of these two actions, the Corps has undertaken a reformulation study of the remaining unconstructed features of the Yazoo Basin project. This study will identify alternative plans for achieving greater levels of environmental and urban flood protection. Funds were provided in FY 1991 to continue the study. The purpose of the study is to reformulate the project in accordance with the Principles and Guidelines. The study assumes all features scheduled to be placed under contract in FY 1990 were in place. The study will be completed in phases, and interim reports were prepared beginning in FY 1992.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Upper Yazoo Projects:	
Continue:	
Lands and Damages	$ 1,475,000
Channel Item 4B	2,500,000
Reforestation Phase II, Sky Lake	100,000
Planning, Engineering and Design	1,500,000
Supervision and Administration	1,225,000
Subtotal	6,800,000
Main Stem:	
Planning, Engineering and Design	25,000
Subtotal	25,000

Tributaries:	
Planning, Engineering and Design	$ 200,000
Subtotal	200,000
Big Sunflower, Etc., Including Steele Bayou:	
Continue:	
Lands and Damages	59,000
Complete:	
Item 66A/B Swan Lake Phase V	500,000
Reforestation Phase II	91,000
Planning, Engineering and Design	300,000
Supervision and Administration	50,000
Subtotal	1,000,000
Yazoo Backwater Pumping Plant:	
Planning, Engineering and Design	500,000
Subtotal	500,000
Reformulation Study:	
Reformulation Studies	25,000
Subtotal	25,000
TOTAL	$ 8,550,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the initial authorization and subsequent authorized modifications of the Yazoo Basin project including the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Will M. Whittington:		
Pay 25 percent of the first costs allocated to fish and wildlife enhancement and pay 25 percent of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities.	$ 217,000	$74,000
Subtotal Non-Federal Costs	$ 217,000	$74,000
Big Sunflower River, Etc., Including Steele Bayou:		
Provide 25 percent of lands allocated to fish and wildlife enhancement.	$ 43,000	
Pay 25 percent of the first costs allocated to fish and wildlife enhancement and pay 25 percent of the costs of operation, maintenance, and maintain and operate fish and wildlife facilities and perform minor maintenance on the project.	$ 450,000	$46,185
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 30,000	
Subtotal Non-Federal Costs	$ 523,000	$46,185

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Main Stem:		
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$ 11,000	
Subtotal Non-Federal Costs	$ 11,000	
Yazoo Backwater Including Muddy Bayou Control Structures:		
Pay 25 percent of the first costs allocated to fish and wildlife enhancement and pay 25 percent of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities.	$ 137,000	$ 29,092
Subtotal Non-Federal Costs	$ 137,000	$ 29,092
Rocky Bayou:		
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$ 1,411,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	$ 1,700,000	
Pay 8.4 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	$ 1,583,000	$ 37,404
Subtotal Non-Federal Costs	$ 4,694,000	$ 37,404
Total Non-Federal Costs	$ 5,582,000	$1,186,681

STATUS OF LOCAL COOPERATION:

Flood Control:

Local cooperation is not required for the Yazoo Headwater Unit.

Assurances to operate the Big Sunflower River Unit and perform minor maintenance have been accepted from the Yazoo-Mississippi Delta Levee District and the Board of Mississippi Levee Commissioners. Formal assurances for work in the Steele Bayou Basin were accepted 8 June 1972 without the requirement that local interests "construct or have constructed by others, the necessary associated interior drainage works."

For the Yazoo Backwater unit, assurances of local cooperation have been accepted from the Board of Mississippi Levee Commissioners and the Yazoo-Mississippi Delta Levee District. Supplemental assurances covering the requirements of local cooperation as provided for in the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" (PL 91-646), were accepted 7 August 1972. The Board of Levee Commissioners for the Yazoo-Mississippi Delta, non-Federal sponsor for the Rocky Bayou, and the Board of Levee Commissioners for the Mississippi Levee District, non-Federal sponsor for the Yazoo Backwater Pumping Plant, have been notified of the cost-sharing requirements of the Water Resources Development Act of 1986. The Board of Commissioners for the Mississippi Levee District indicated by letter dated 3 November 1988 they cannot agree to any form of cost sharing for the Yazoo Backwater Pumping Plant. However, they later agreed to pay up to 5 percent toward the remaining construction cost and operating cost as per 16 July 1990 letter from Senator Thad Cochran to Senator J. Bennett Johnston, Chairman, Subcommittee on Energy and Water Development. The Water Resources Development Act of 1996, Section 202a(2), contained language (physical construction defined) which relieved the local sponsor from cost sharing the pumping plant based on redefinition of when physical construction began. Under the 1996 provision, the cost for constructing a pumping plant would be 100 percent Federal.

Recreation:

The State of Mississippi, which provided formal assurances in 1967 that it would operate and maintain Corps constructed recreation facilities at the Yazoo Basin lakes, notified the Vicksburg District in the early 1980's that it was unable to fully comply with the assurances and to continue the operation and maintenance function for some of the sites. Under the terms of an escape clause in the leases, the state was allowed to withdraw its operation and maintenance support at some sites.

Fish and Wildlife:

Local cooperation agreements will be obtained when planning is more advanced.

COMPARISON OF FEDERAL COST ESTIMATES: The current cost estimate of $1,821,029,000 is an increase of $21,042,000 from the latest estimate ($1,799,987,000) presented to Congress (FY 2001). This change includes the following items:

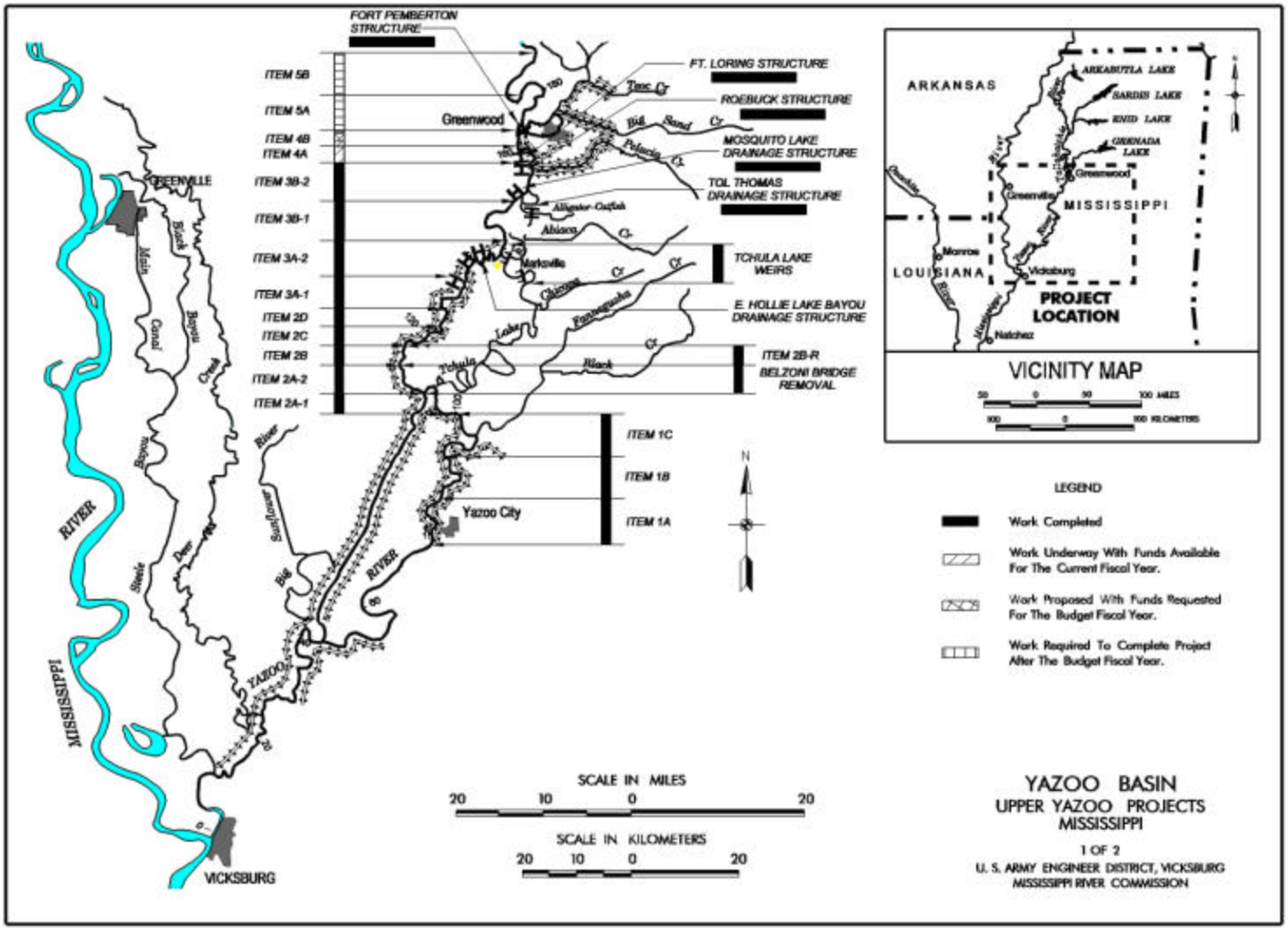
Item	Amount
Price Escalation on Construction Features	$ 17,537,000
Price Escalation on Real Estate Features	3,505,000
Total	$21,042,000

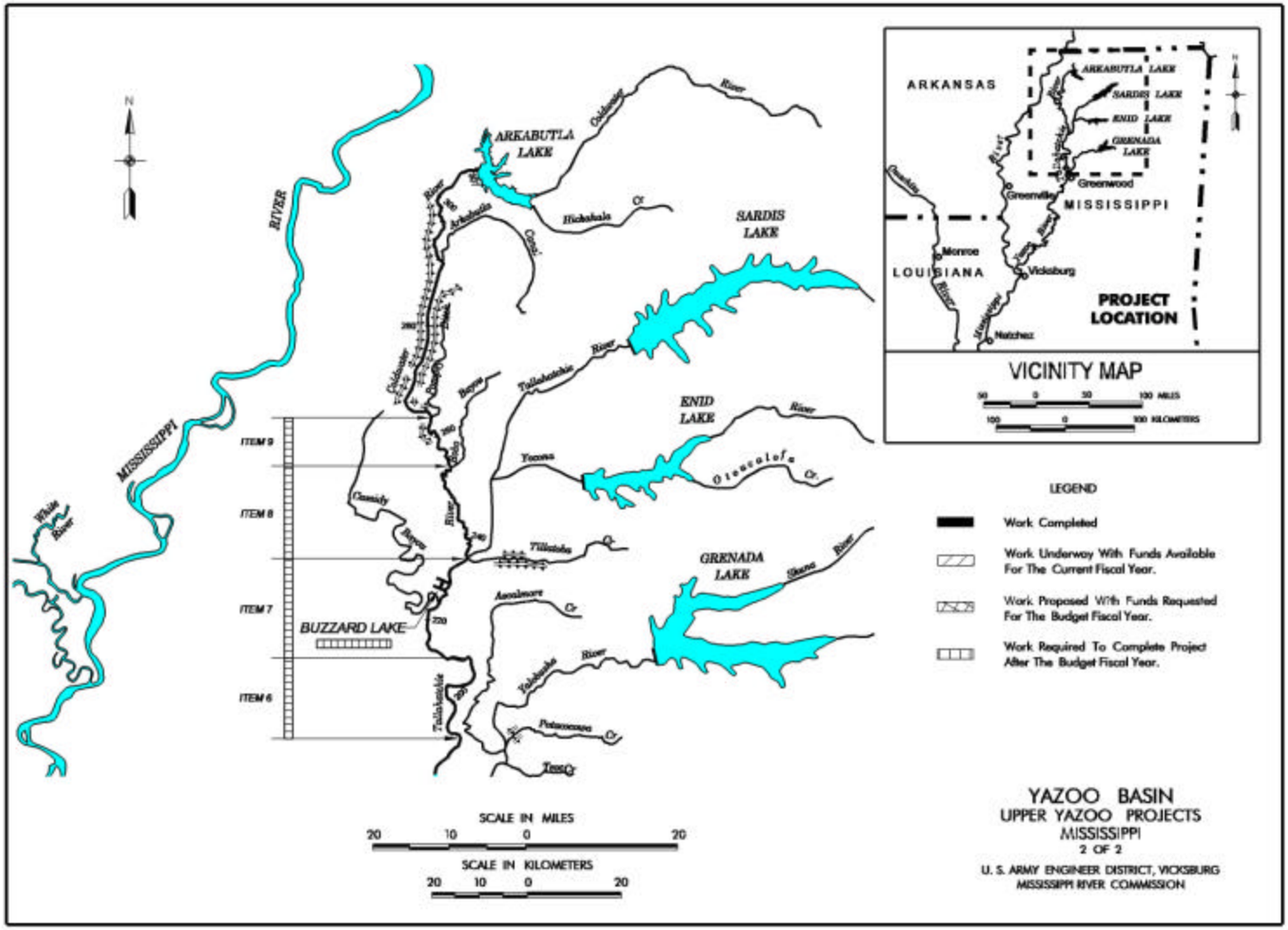
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Final Environmental Impact Statements have been filed with the Council on Environmental Quality or with the Environmental Protection Agency as follows:

Project Unit	Date
Upper Yazoo Project	16 January 1976
Main Stem	16 January 1976
Tributaries (Except Ascalmore-Tippo and Opossum Bayou)	16 January 1976
Ascalmore-Tippo and Opossum Bayou	6 June 1975
Demonstration Erosion Control	1/
Big Sunflower	16 January 1976
Yazoo Backwater	16 January 1976

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1936. The completion date for the Demonstration Erosion Control unit is being determined.

1/ The appropriate National Environmental Policy Act documentation will include preparation of an Environmental Impact Statement if environmental impacts are determined to be significant.


FORT PEMBERTON STRUCTURE
FT. LORING STRUCTURE
ROEBUCK STRUCTURE
MOSQUITO LAKE DRAINAGE STRUCTURE
TOL THOMAS DRAINAGE STRUCTURE
TCHULA LAKE WEIRS
E. HOLLIE LAKE BAYOU DRAINAGE STRUCTURE
ITEM 2B-R
BELZONI BRIDGE REMOVAL
ITEM 5B
ITEM 5A
ITEM 4B
ITEM 4A
ITEM 3B-2
ITEM 3B-1
ITEM 3A-2
ITEM 3A-1
ITEM 2D
ITEM 2C
ITEM 2B
ITEM 2A-2
ITEM 2A-1
ITEM 1C
ITEM 1B
ITEM 1A
Greenwood
Yazoo City
GREENVILLE
VICKSBURG
MISSISSIPPI RIVER
YAZOO RIVER
ARKANSAS
LOUISIANA
MISSISSIPPI
ARKABUTLA LAKE
SARDIS LAKE
ENID LAKE
GRENADA LAKE
PROJECT LOCATION
VICINITY MAP
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
SCALE IN MILES
SCALE IN KILOMETERS
YAZOO BASIN
UPPER YAZOO PROJECTS
MISSISSIPPI
1 OF 2
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION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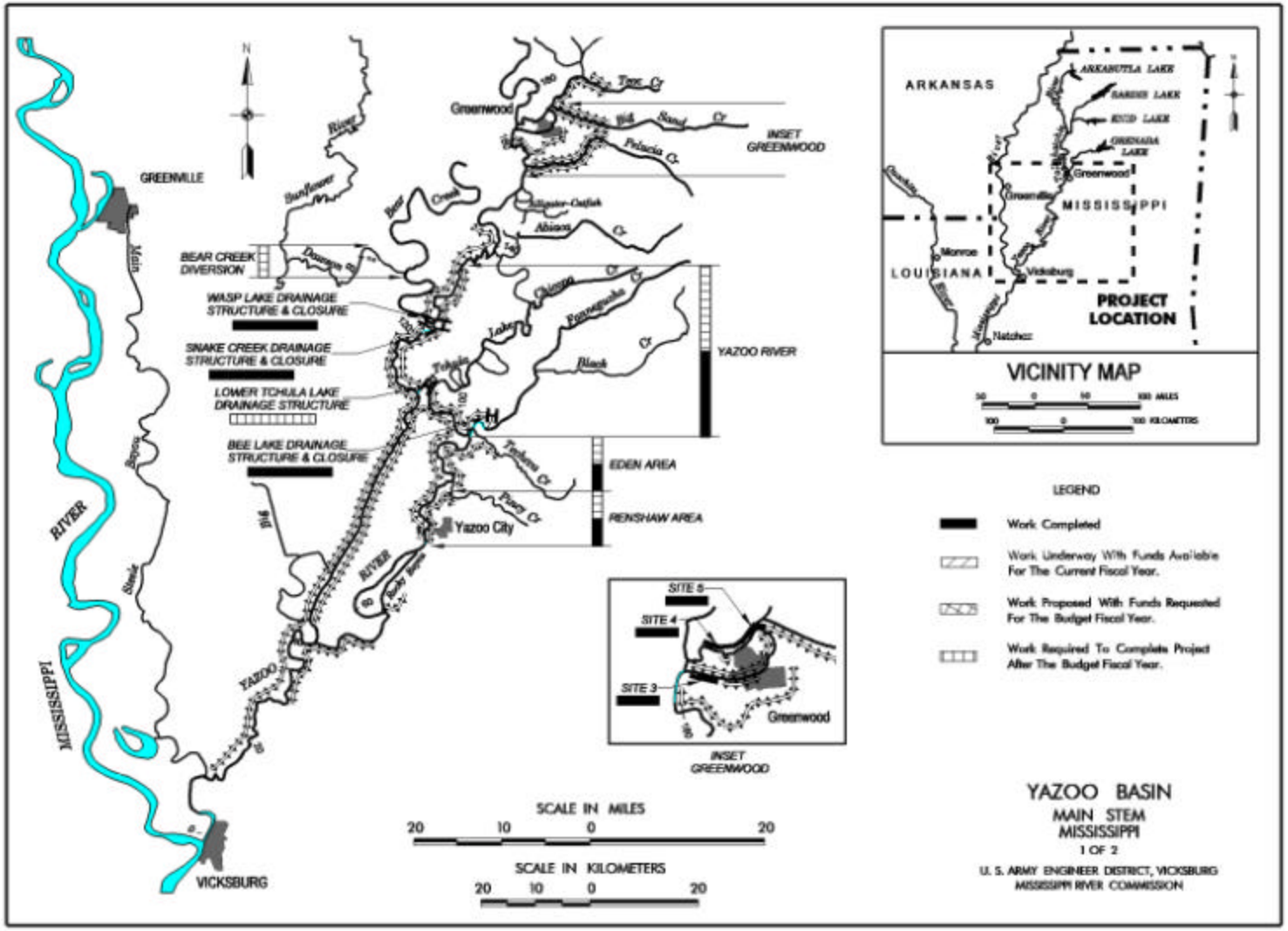
SARDIS LAKE
ENID LAKE
GRENADA LAKE
Greenwood
Greenville
MISSISSIPPI
Monroe
LOUISIANA
Vicksburg
Natchez
PROJECT LOCATION
VICINITY MAP
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
ITEM 9
ITEM 8
ITEM 7
ITEM 6
BUZZARD LAKE
MISSISSIPPI RIVER
SCALE IN MILES
SCALE IN KILOMETERS
YAZOO BASIN
UPPER YAZOO PROJECTS
MISSISSIPPI
2 OF 2
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION


GREENVILLE
VICKSBURG
MISSISSIPPI
RIVER
YAZOO
Greenwood
INSET GREENWOOD
BEAR CREEK DIVERSION
WASP LAKE DRAINAGE STRUCTURE & CLOSURE
SNAKE CREEK DRAINAGE STRUCTURE & CLOSURE
LOWER TCHULA LAKE DRAINAGE STRUCTURE
BEE LAKE DRAINAGE STRUCTURE & CLOSURE
YAZOO RIVER
EDEN AREA
RENSHAW AREA
Yazoo City
SITE 5
SITE 4
SITE 3
SCALE IN MILES
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SCALE IN KILOMETERS
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ARKANSAS
MISSISSIPPI
LOUISIANA
Monroe
Vicksburg
Natchez
PROJECT LOCATION
VICINITY MAP
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
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Work Required To Complete Project After The Budget Fiscal Year.
YAZOO BASIN
MAIN STEM
MISSISSIPPI
1 OF 2
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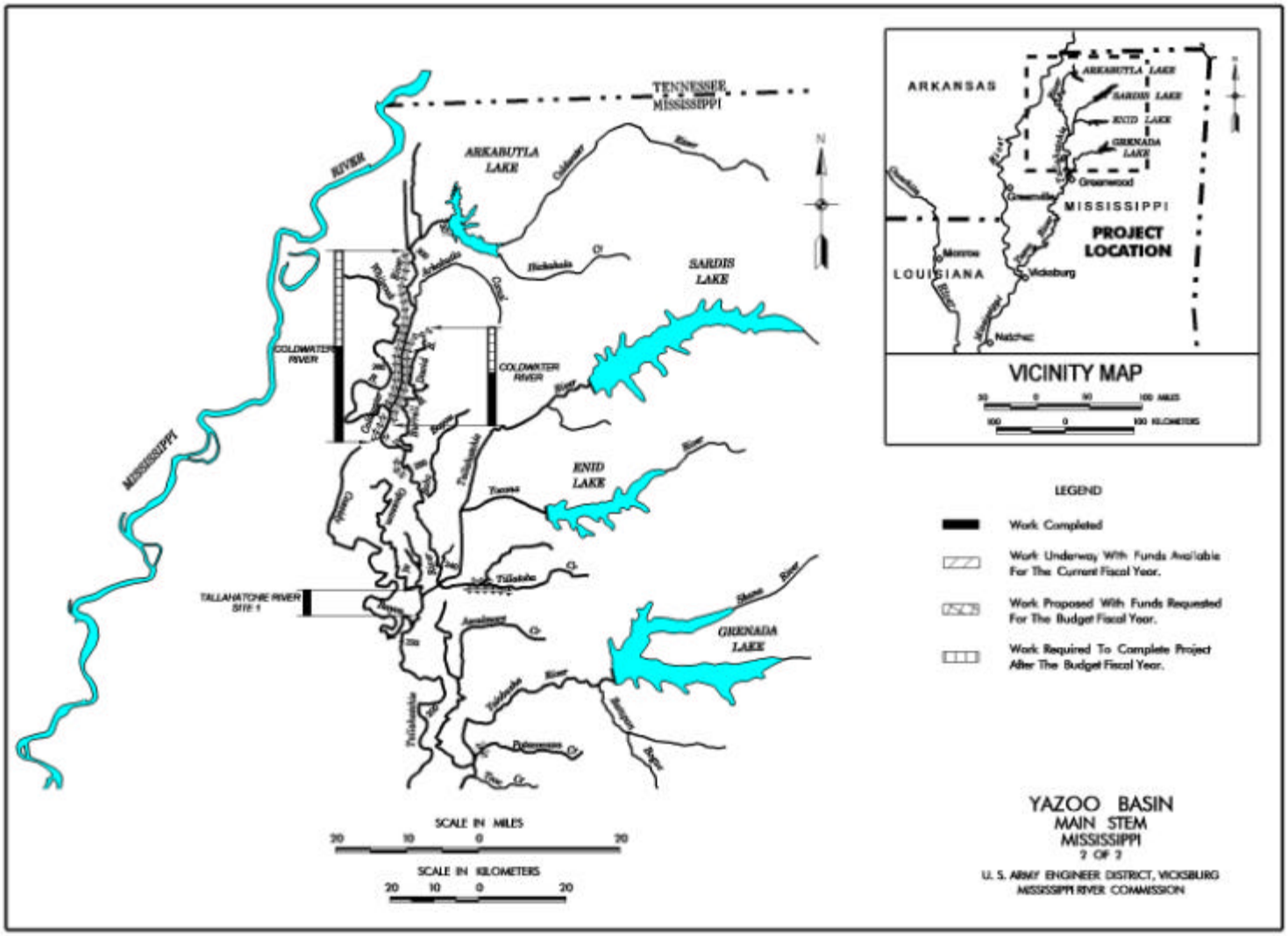
MISSISSIPPI RIVER COMMISSION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GRENADA LAKE
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TALLAHATCHIE RIVER SITE 1
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2 OF 2
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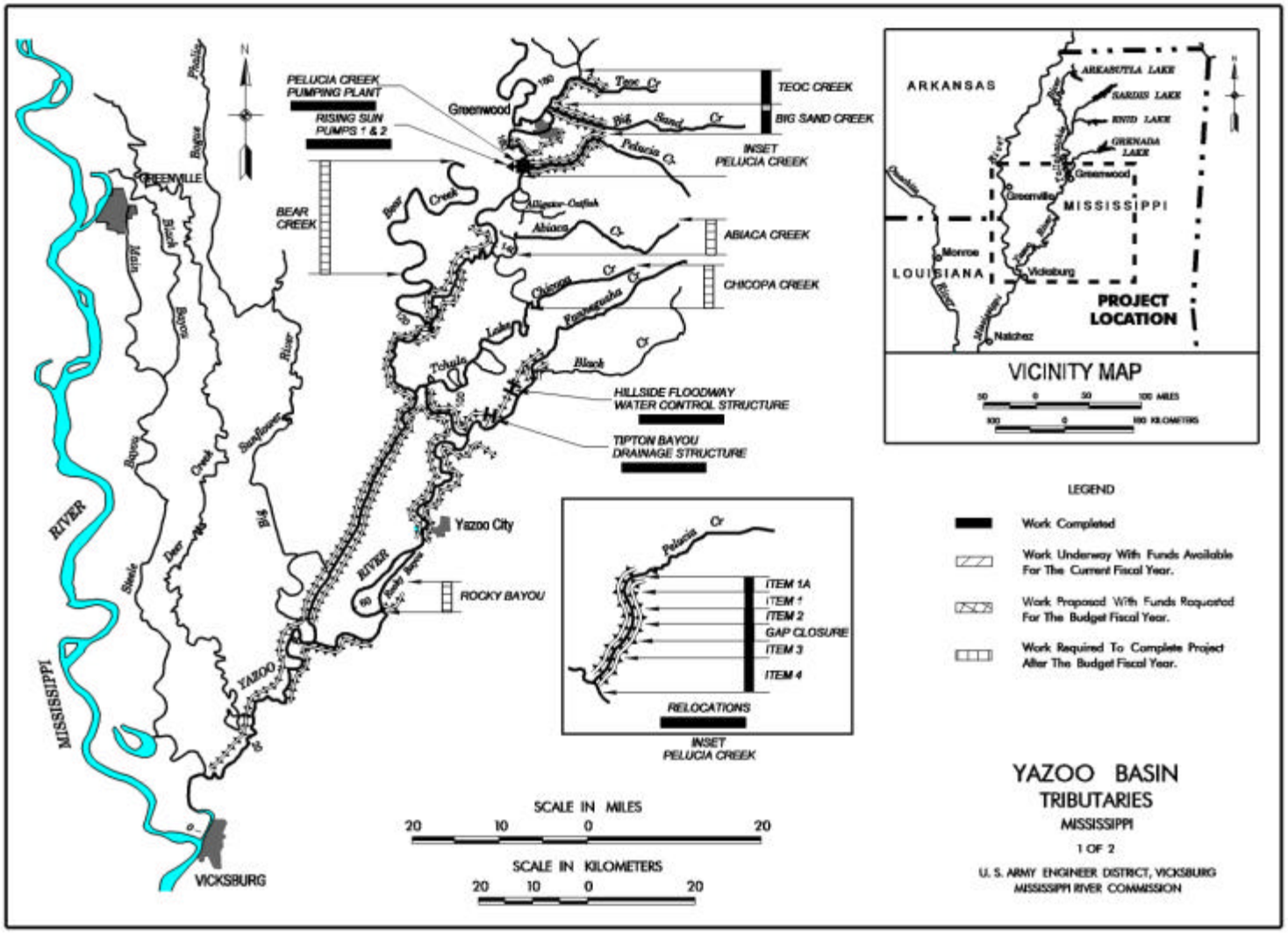
PELUCIA CREEK PUMPING PLANT
RISING SUN PUMPS 1 & 2
BEAR CREEK
TEOC CREEK
BIG SAND CREEK
INSET PELUCIA CREEK
ABIACA CREEK
CHICOPA CREEK
HILLSIDE FLOODWAY WATER CONTROL STRUCTURE
TIPTON BAYOU DRAINAGE STRUCTURE
ROCKY BAYOU
Greenwood
GREENVILLE
Yazoo City
VICKSBURG
MISSISSIPPI RIVER
YAZOO
ARKANSAS
LOUISIANA
MISSISSIPPI
ARKABUTLA LAKE
SARDIS LAKE
ENID LAKE
GRENADA LAKE
Greenwood
Greenville
Monroe
Vicksburg
Natchez
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ITEM 1A
ITEM 1
ITEM 2
GAP CLOSURE
ITEM 3
ITEM 4
RELOCATIONS
INSET PELUCIA CREEK
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SCALE IN KILOMETERS
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TRIBUTARIES
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1 OF 2
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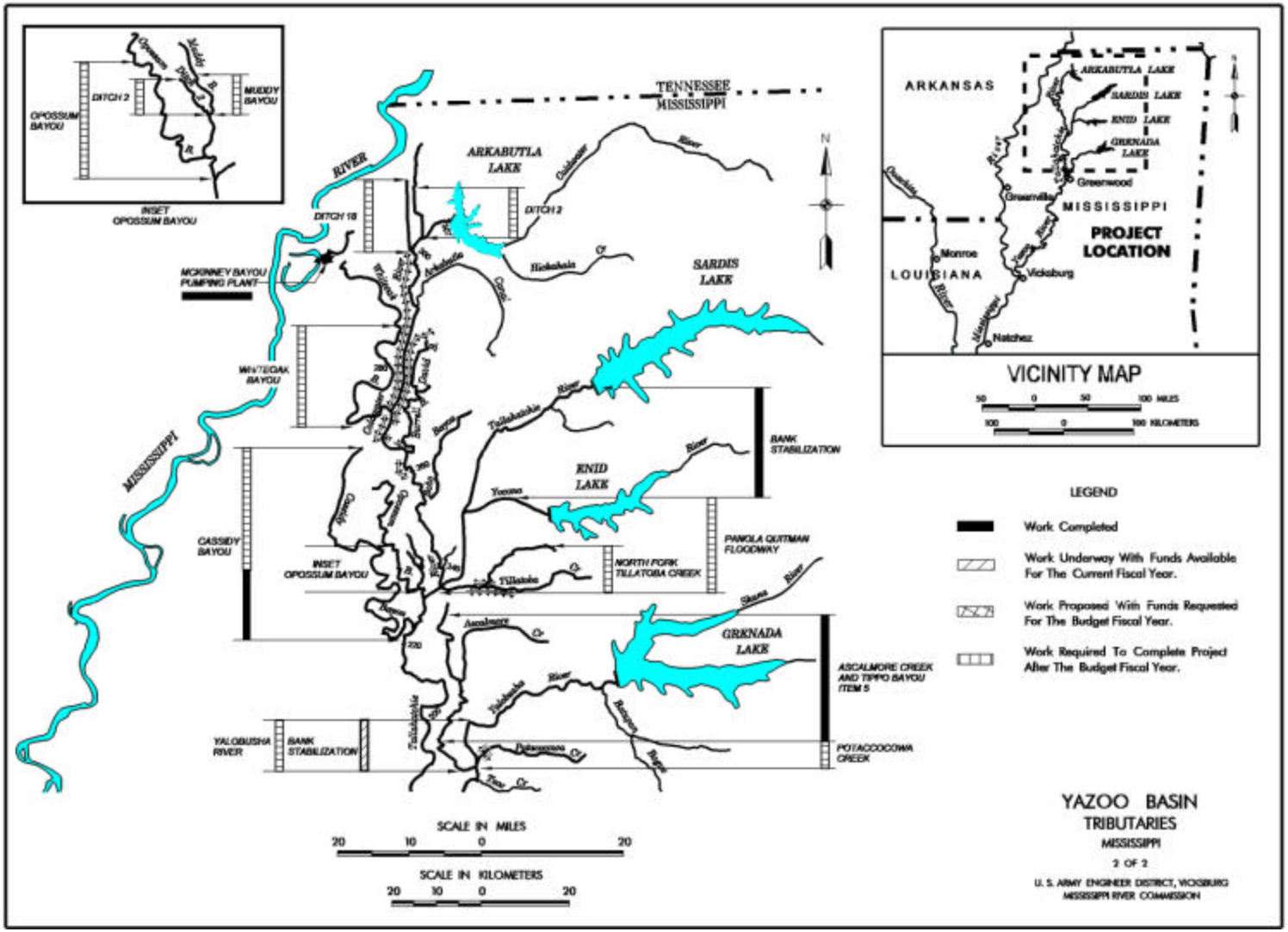
MISSISSIPPI RIVER COMMISSION


TENNESSEE
MISSISSIPPI
ARKABUTLA LAKE
SARDIS LAKE
ENID LAKE
GRENADA LAKE
MISSISSIPPI RIVER
MCKINNEY BAYOU PUMPING PLANT
WHITEOAK BAYOU
CASSIDY BAYOU
INSET OPOSSUM BAYOU
OPOSSUM BAYOU
DITCH 2
MUDDY BAYOU
DITCH 18
BANK STABILIZATION
PANOLA QUITMAN FLOODWAY
NORTH FORK TILLATOBA CREEK
ASCALMORE CREEK AND TIPPO BAYOU ITEM 5
POTACOCOWA CREEK
YALOBUSHA RIVER
ARKANSAS
LOUISIANA
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SCALE IN KILOMETERS
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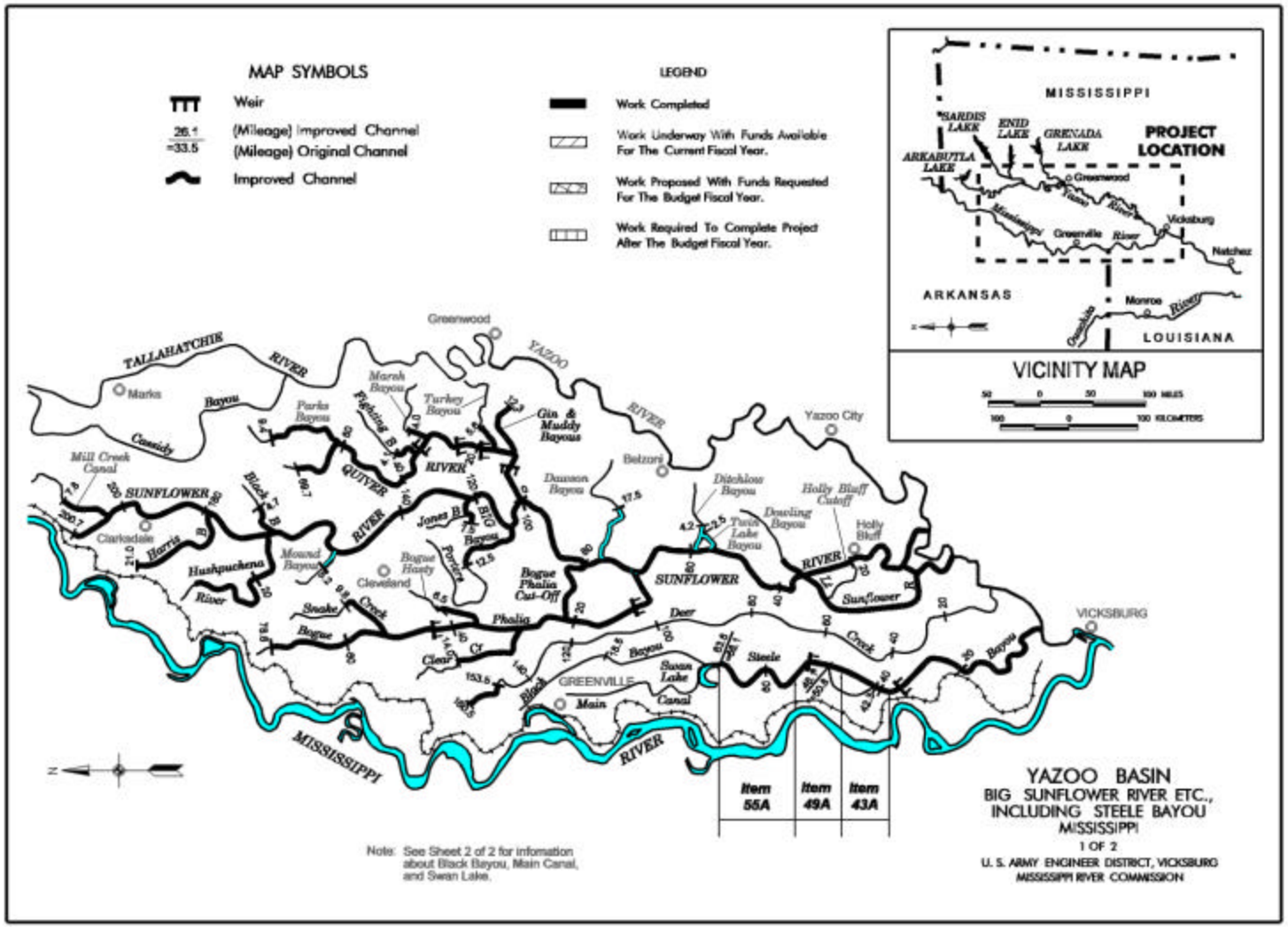
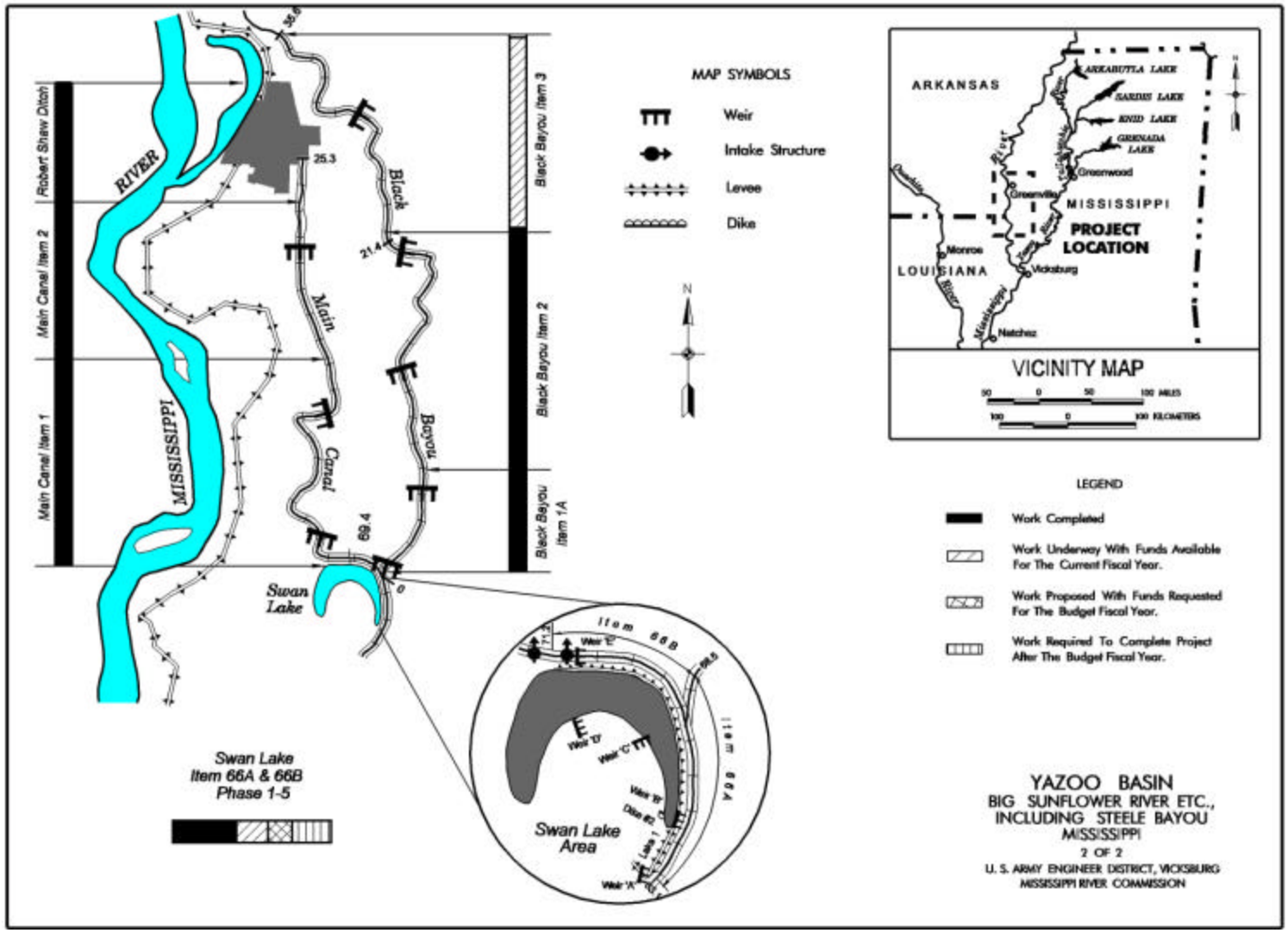
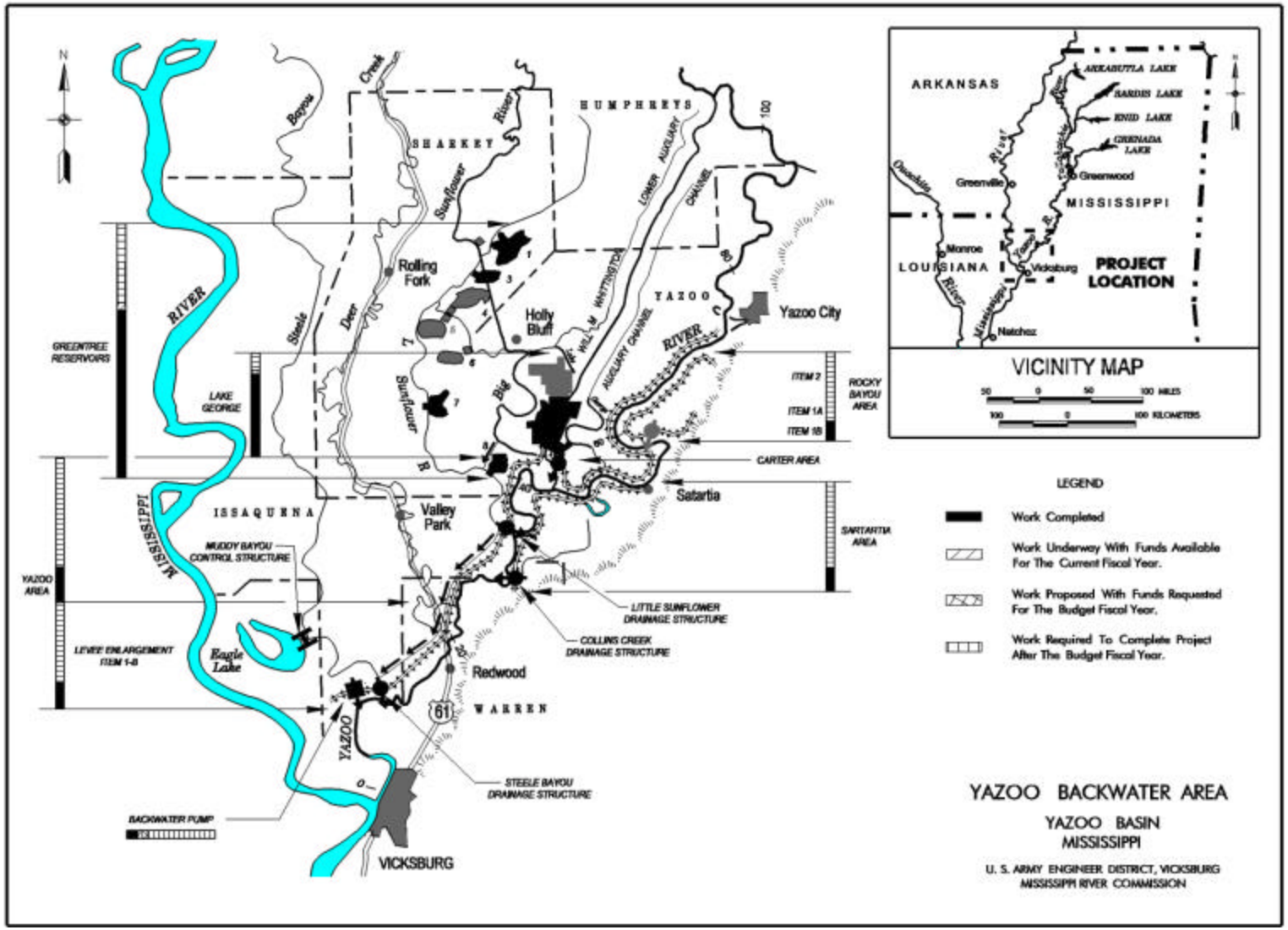
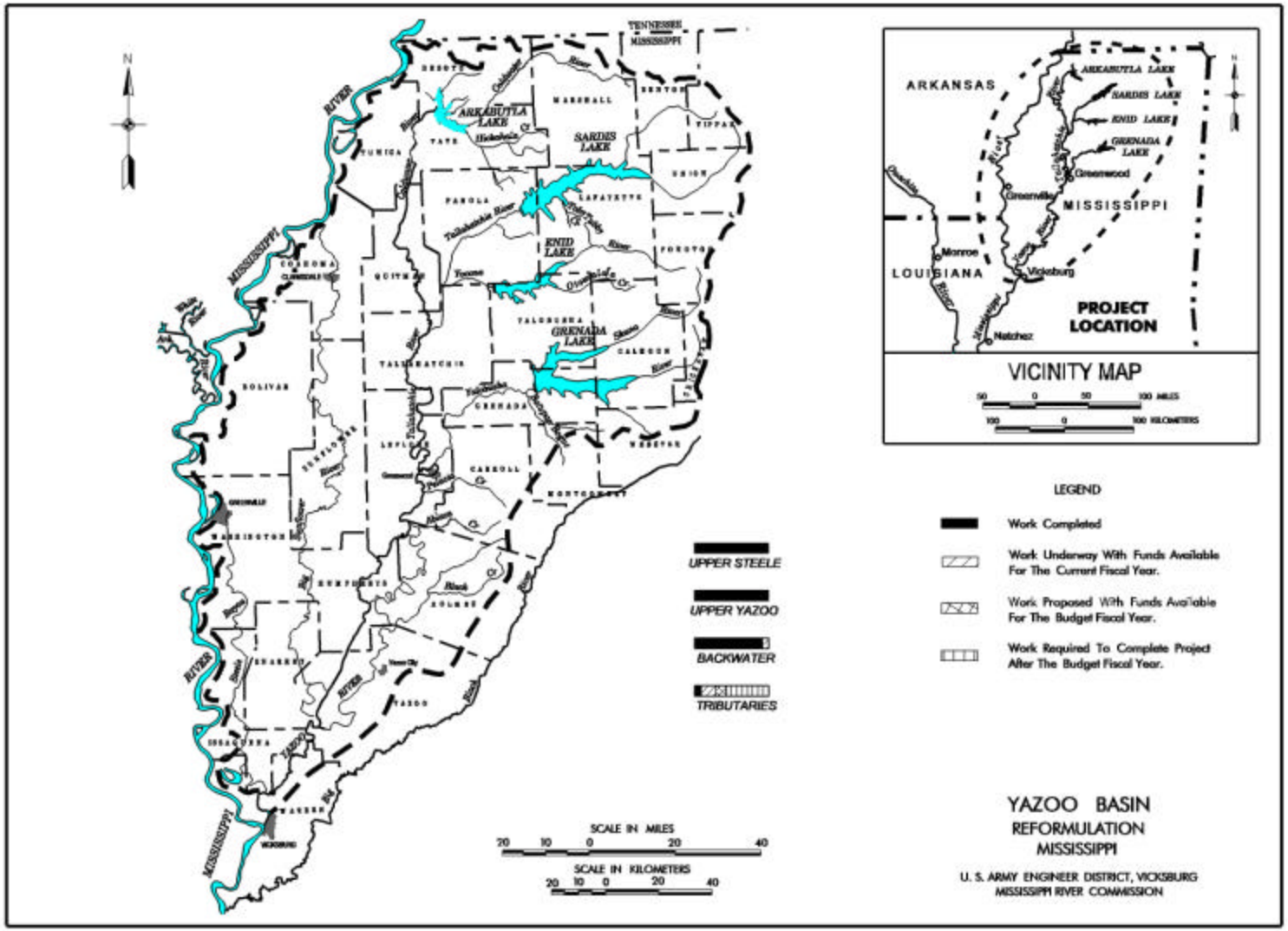
MISSISSIPPI
2 OF 2
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION


MAP SYMBOLS
Weir
26.1
=33.5
(Mileage) Improved Channel
(Mileage) Original Channel
Improved Channel
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
MISSISSIPPI
SARDIS LAKE
ENID LAKE
GRENADA LAKE
PROJECT LOCATION
ARKABUTLA LAKE
Greenwood
Vicksburg
Greenville
Natchez
ARKANSAS
Monroe
LOUISIANA
VICINITY MAP
TALLAHATCHIE RIVER
Marks
Bayou
Cassidy
Mill Creek Canal
SUNFLOWER
Clarksdale
Harris
Hushpuchena
River
Black
Parks Bayou
Fighting B.
Marsh Bayou
Turkey Bayou
QUITIVER
RIVER
Jones B.
BIG
Bayou
Mound Bayou
Bogue Hasty
Cleveland
Porters
Snake
Creek
Bogue
Clear
Cr.
Phalia
Bogue Phalia Cut-Off
Gin & Muddy Bayous
YAZOO
RIVER
Dawson Bayou
Belzoni
Yazoo City
Ditchlow Bayou
Twin Lake Bayou
Dowling Bayou
Holly Bluff Cutoff
Holly Bluff
SUNFLOWER
Deer
Bayou
Susan Lake
Canal
Steele
Sunflower
Creek
Bayou
VICKSBURG
GREENVILLE
Main
Black
MISSISSIPPI
RIVER
Item 55A
Item 49A
Item 43A
Note: See Sheet 2 of 2 for information about Black Bayou, Main Canal, and Swan Lake.
YAZOO BASIN
BIG SUNFLOWER RIVER ETC., INCLUDING STEELE BAYOU
MISSISSIPPI
1 OF 2
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION


MAP SYMBOLS
Weir
Intake Structure
Levee
Dike
N
Robert Shaw Ditch
Main Canal Item 2
Main Canal Item 1
Black Bayou Item 3
Black Bayou Item 2
Black Bayou Item 1A
RIVER
MISSISSIPPI
Main
Canal
Black
Bayou
Swan Lake
25.3
21.4
69.4
Swan Lake Item 66A & 66B Phase 1-5
Item 66B
Item 66A
Swan Lake Area
ARKANSAS
MISSISSIPPI
LOUISIANA
PROJECT LOCATION
Greenwood
Greenville
Monroe
Vicksburg
Natchez
VICINITY MAP
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
YAZOO BASIN
BIG SUNFLOWER RIVER ETC., INCLUDING STEELE BAYOU
MISSISSIPPI
2 OF 2
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION


YAZOO BACKWATER AREA
YAZOO BASIN
MISSISSIPPI
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
VICINITY MAP
ARKANSAS
MISSISSIPPI
LOUISIANA
PROJECT LOCATION
Greenville
Greenwood
Monroe
Vicksburg
Natchez
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
HUMPHREYS
SHARKEY
ISSAQUENA
WARREN
YAZOO
Yazoo City
Rolling Fork
Holly Bluff
Valley Park
Redwood
Satartia
Eagle Lake
VICKSBURG
MISSISSIPPI RIVER
YAZOO RIVER
Big Sunflower R.
Little Sunflower R.
Deer Creek
Steele Bayou
Muddy Bayou
Lower Auxiliary Channel
Auxiliary Channel
Chakalee
GREENTREE RESERVOIRS
LAKE GEORGE
YAZOO AREA
LEVEE ENLARGEMENT ITEM 1-B
ROCKY BAYOU AREA
ITEM 2
ITEM 1A
ITEM 1B
CARTER AREA
SARTARTIA AREA
MUDDY BAYOU CONTROL STRUCTURE
LITTLE SUNFLOWER DRAINAGE STRUCTURE
COLLINS CREEK DRAINAGE STRUCTURE
STEELE BAYOU DRAINAGE STRUCTURE
BACKWATER PUMP
61
100


ARKABUTLA LAKE
SARDIS LAKE
ENID LAKE
GRENADA LAKE
MISSISSIPPI
RIVER
TENNESSEE
ARKANSAS
LOUISIANA
Greenwood
Greenville
Monroe
Vicksburg
Natchez
PROJECT LOCATION
VICINITY MAP
UPPER STEELE
UPPER YAZOO
BACKWATER
TRIBUTARIES
SCALE IN MILES
SCALE IN KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Available For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
YAZOO BASIN
REFORMULATION
MISSISSIPPI
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Construction

PROJECT: St. John's Bayou – New Madrid Floodway, Missouri (Continuing)

LOCATION: The project area is located in southeast Missouri in New Madrid, Scott, and Mississippi Counties.

DESCRIPTION: The authorized project consists of 137 miles of rural channel improvement, 6.7 miles of urban channel improvement, a 1,000 cfs pumping station, and a 1,500 cfs pumping station, including mitigation features, and will be constructed in three phases. Work for the First Phase of the project is programmed. This phase includes the two pumping stations, 27.6 miles of channel improvements and appropriate mitigation features. The remaining St. John's Bayou work consists of 91 miles of channel improvements, including the 6.7 miles of urban channel. The remaining New Madrid floodway work consists of 25 miles of rural channel improvements. Both the St. Johns Bayou and New Madrid Floodway remaining work are unprogrammed due to the lack of local sponsor financing capability.

AUTHORIZATION: Water Resources Development Acts of 1986 and 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 1.9 to 1 at 7-3/8 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 7-3/8 percent.

INITIAL BENEFIT-COST RATIO: 1.2 at 7-3/8 percent

BASIS OF BENEFIT-COST RATIO: Benefits are from the March 1997 Limited Reevaluation Report at 1996 price levels based on total project. The benefit-cost ratio does not include costs associated with the 1,500-foot gap closure and box culvert authorized as a component of the Mississippi River Levee System by the Flood Control Act of 1954.

SUMMARIZED FINANCIAL DATA			
Estimated Federal Cost			$61,400,000
Programmed Construction		$40,336,000	
Unprogrammed Construction		$21,064,000	
Estimated Non-Federal Cost			$41,700,000
Programmed Construction		$12,843,000	
Cash Contributions	$ 5,844,000		
Other Costs	$ 6,999,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		$28,857,000	
Cash Contributions	$ 2,510,000		
Other Costs	$26,347,000		

STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
First Phase	3	Being Determined
St. Johns Phase	0	Indefinite
New Madrid Phase	0	Indefinite
Entire Project	0	Being Determined

PHYSICAL DATA	
Lands and Damages:	
Flood Control	6,467 acres
F&WL Mitigation	2,500 acres
Restrictive Easements	2,450 acres
Seasonal Sump Pond Easements	4,900 acres

SUMMARIZED FINANCIAL DATA (cont.)		ACCUM PCT OF EST FED COST
Total Estimated Programmed Construction Cost	$ 53,179,000	
Total Estimated Unprogrammed Construction Cost	49,921,000	
Total Estimated Project Cost	103,100,000	
Allocations to 30 September 2000	$ 8,807,000	
Conference Allowance for FY 2001	5,000,000	
Allocation for FY 2001	987,000[1]	
Allocations through FY 2001	9,794,000	16
Allocation Requested for FY 2002	$ 150,000	18
Programmed Balance to Complete After FY 2002	30,392,000	
Unprogrammed Balance to Complete After 2002	21,064,000	

PHYSICAL DATA (cont.)	
Relocations:	
Roads	38 bridges/1 road
Railroads	3 bridges
Utilities	103 facilities
Channels:	
Enlargement	143.6 miles
Pumping Plants:	
1000cfs	
1500 cfs	

JUSTIFICATION: The project area is subject to flooding by accumulation of runoff in channels not having sufficient flow capacity. Runoff is also impounded in the lower end of the area during high Mississippi River stages. The lower end of the New Madrid Floodway is flooded by backwater from the Mississippi River. Construction of the authorized levee closure (Mississippi River Levee Project item) in the lower end of the Floodway will eliminate Mississippi River backwater; however, local runoff during high Mississippi River stages will be impounded. The two pumping stations and attendant channel improvements would help alleviate the flood problems. Total average annual benefits are as follows (1996 price levels):

Annual Benefits	Amount
Urban	$ 2,491,000
Agricultural Inundation Reduction	6,277,000
Agricultural Intensification	2,363,000
Advanced Replacements	232,000
Betterments	13,000
Wildlife and Aquatic Gains	159,000
Total	$11,535,000

[1] Reflects $252,000 reduction assigned as savings and slippage; $3,750,000 reprogrammed from the project; and $11,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Planning Engineering and Design	$ 150,000
Total	$ 150,000

NON-FEDERAL COST: In accordance with the cost sharing and financial concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, right-of-way, and borrow and excavated or dredged material disposal areas.	$17,378,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	$15,968,000	
Pay 5 percent of the costs allocated to flood control in cash to bring the total non-federal share of flood control cost to 25 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	$ 8,354,000	$748,819
Total Non-Federal Costs	$41,700,000	$748,819

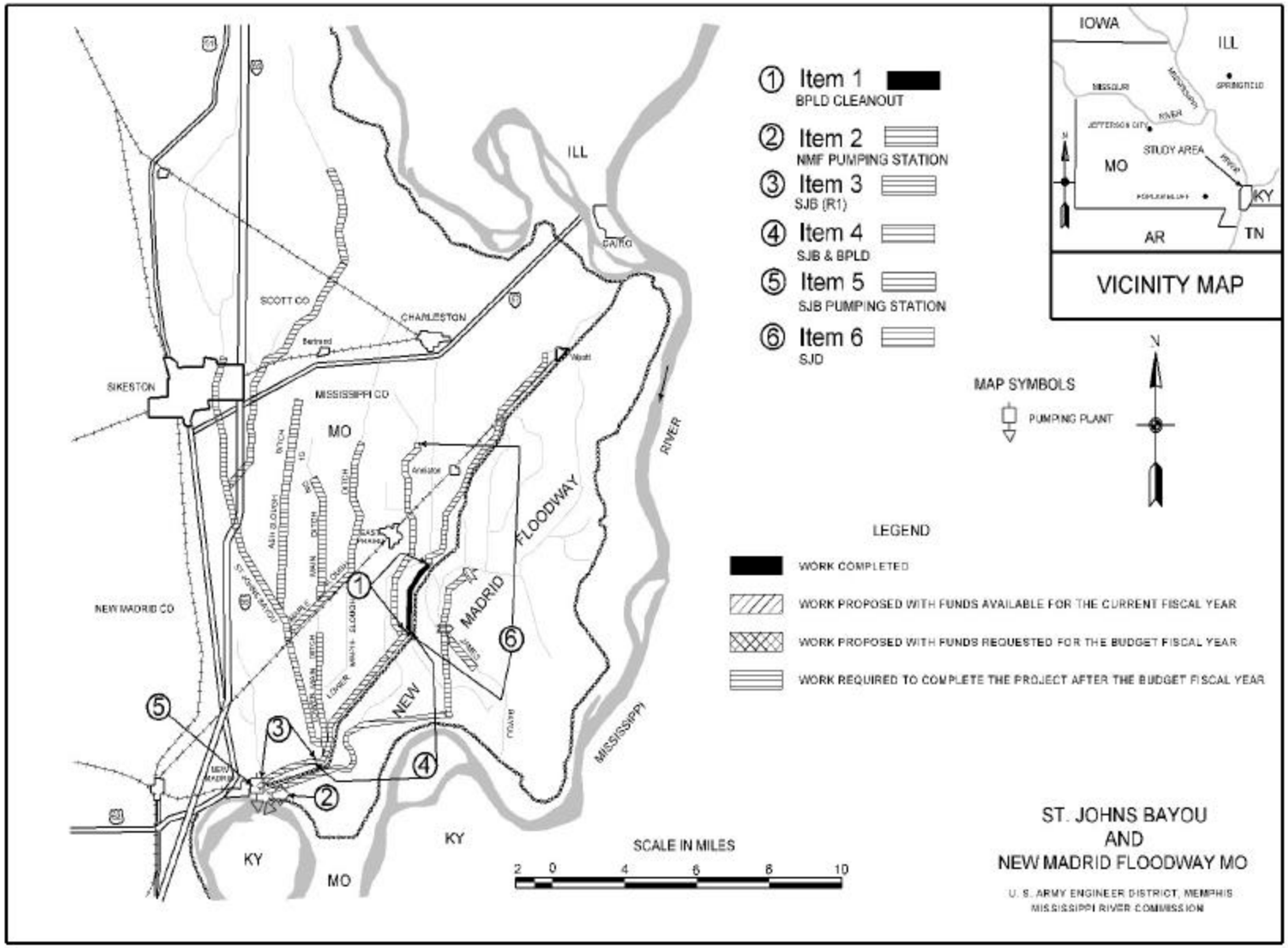
STATUS OF LOCAL COOPERATION: The St. John Levee and Drainage District is the cost-sharing local sponsor for the First Phase of the St. Johns Bayou and New Madrid Floodway Project. A Limited Reevaluation Report (LRR) to separate the engineering, economic, and environmental data for the First Phase from the overall project was approved 7 August 1997. The Project Cooperation Agreement was signed 18 August 1997 and the first item of construction was completed in October 1997. Subsequent work items as covered in the PCA are on hold pending NEPA compliance.

COMPARISION OF FEDERAL COST ESIMATES: The current Federal cost estimate of $61,400,000 is an increase of $1,791,000 from the latest estimate ($59,609,000) presented to Congress (Fiscal Year 2001). This change includes the following:

Item	Amount
Price Escalation on Construction Features	$1,787,000
Post contract Award and Other Estimating Adjustments	0
Price Escalation on Real Estate	4,000
Total	$1,791,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement (EIS) for the St. Johns Bayou and New Madrid Floodway project was filed with the Council on Environmental Quality in June 1974, and a Supplement to the EIS was filed with the U.S. Environmental Protection Agency (EPA) in July 1982. The project for which both the EIS and Supplement to the EIS were prepared provided mitigation to offset fish, wildlife, and other environmental losses. Project changes resulting from Phase II General Design Memorandum (GDM) studies were evaluated in 1987. Environmental analysis conducted in conjunction with the preparation of the Phase II GDM reflected no substantive change in environmental impacts, and concluded that mitigation approved in prior reports would offset project losses. Project construction was initiated in FY 1997 with 4.3 miles of vegetative clearing along the Setback Levee Ditch. This work was covered by an Environmental Assessment/FONSI. A supplemental environmental impact statement which addresses the remaining items of Phase I was prepared and formally reviewed by the public. Public comments have been addressed and incorporated into the final document, which was filed with EPA on 24 August 2000. The US Fish and Wildlife Service, the Office of the Assistant Secretary of the Army (Civil Works), EPA, and Corps of Engineers and sponsoring levee and drainage districts are working on options papers and future process directions. Construction of remaining items can be initiated when NEPA processing is completed, water quality certification is received from the State of Missouri, and rights of way are provided by the local sponsor.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1982. Funds to initiate construction were appropriated in FY 1997. Local interests have expressed a desire to implement the First Phase portion of the St. Johns Bayou and New Madrid Floodway project to provide regional flood control and remove the physical and economic barriers caused by frequent flooding. East Prairie has received Federal recognition for its Enterprise Community Plan, thus making the Community eligible to receive Federal grant funds. USDA agreed to provide those funds necessary to reduce the local share of project costs to five percent.


① Item 1
BPLD CLEANOUT
② Item 2
NMF PUMPING STATION
③ Item 3
SJB (R1)
④ Item 4
SJB & BPLD
⑤ Item 5
SJB PUMPING STATION
⑥ Item 6
SJD
IOWA
ILL
MISSOURI
SPRINGFIELD
JEFFERSON CITY
STUDY AREA
MO
KY
AR
TN
VICINITY MAP
MAP SYMBOLS
PUMPING PLANT
N
LEGEND
WORK COMPLETED
WORK PROPOSED WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
ILL
CAIRO
SCOTT CO
CHARLESTON
SIKESTON
MISSISSIPPI CO
MO
NEW MADRID CO
NEW MADRID FLOODWAY
MISSISSIPPI RIVER
KY
MO
KY
SCALE IN MILES
2 0 4 6 8 10
ST. JOHNS BAYOU
AND
NEW MADRID FLOODWAY MO
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Construction

PROJECT: Nonconnah Creek, Tennessee and Mississippi (Continuing)

LOCATION: The Nonconnah Creek Basin is located in portions of Shelby and Fayette Counties in southwest Tennessee and extends into DeSoto and Marshall counties in northwest Mississippi. Approximately half of the city of Memphis, Tennessee, is located within the drainage area.

DESCRIPTION: The plan provides for 7.7 miles of channel enlargement, 15.5 miles of channel clearing, 27.0 miles of bike/hike trails, 0.8 miles of nature trails, and a 33-acre nature area. All work is programmed.

AUTHORIZATION: Water Resources Development Acts of 1986 and 2000.

REMAINING BENEFIT-REMAINING COST RATIO: 8.5 to 1 at 8-7/8 percent (Flood Control only).

TOTAL BENEFIT-COST RATIO: 1.04 to 1 at 8-7/8 percent (Flood Control only).

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 8-5/8 percent (FY 1990) (Total Project).

BASIS OF BENEFIT-COST RATIO: Benefits for the flood control feature are from the latest available evaluation approved in June 1990 at October 1987 price levels. Benefits for the environmental and recreation features are from the latest available evaluation awaiting approval at October 1995 price levels.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$18,400,000
Estimated Non-Federal Cost		6,600,000
Cash Contribution	$1,200,000	
Other Costs	5,400,000	
Total Estimated Project Cost		$25,000,000

STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Flood Control	60	Being Determined
Environmental Enhancement	0	Being Determined
Recreation Facilities	0	Being Determined
Entire Project	60	Being Determined

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2000	$12,864,000	
Conference Allowance for FY 2001	2,000,000	
Allocation for FY 2001	1,895,000[1]	
Allocations through FY 2001	14,759,000	80
Allocation Requested for FY 2002	1,300,000	87
Programmed Balance to Complete after FY 2002	2,341,000	
Unprogrammed Balance to Complete after FY 2002	0	

PHYSICAL DATA

Land and Damages:	
Flood Control	600 acres
F&WL Enhancement	33 acres
Relocations:	
Roads	1 bridge
Utilities	36 facilities
Channels:	
Enlargement	7.7 miles
Vegetation Clearing	15.5 miles
Recreation:	
Bike/Hike Trails	27.0 miles
Nature Trails	0.8 miles

JUSTIFICATION: Flood protection is needed for 7,400 homes, businesses, and public buildings on 12,000 acres of urban and urbanizing lands located within the Nonconnah Creek flood plain inundated by the Standard Project Flood. The present value of these properties subject to flood damage is equal to $1,781,700 (2000 price levels).

Major floods occurred in the basin on 21 November 1934, when 10.48 inches of rain fell in 24 hours, and on 9 May 1958, when 4.76 inches of rain fell in approximately eight hours. The most recent significant flood occurred on 3 December 1978, when 4.9 inches were recorded at the Memphis International Airport. The 1978 storm appears to be between the 5-year and 10-year frequency events. Under present day conditions, the 1934 and 1958 flood levels would cause considerably higher damages due to increased urbanization. When completed, the Nonconnah Creek project will prevent approximately $502,789,000 (2000 price levels) in flood damages during the Standard Project Flood. Remaining average annual benefits (1987 price levels) are as follows:

Annual Benefits	Amount
Flood Damage Prevention (Urban)	$1,923,000
Other Flood Control Benefits	203,000
Total	$2,126,000

[1] Reflects $101,000 assigned as savings and slippage and $4,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

FISCAL YEAR 2002: The requested amount will be applied as follows:

Continue:	
Lands and Damages	$ 14,000
Item 2 Channel Improvement	882,000
Planning, Engineering and Design	304,000
Supervision and Administration	100,000
Total	$1,300,000

NON-FEDERAL COST: In accordance with the cost sharing and financial concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, And Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.		
-Flood Control	$2,113,000	
-Environmental Enhancement	50,000	
-Recreation Facilities	28,000	
Modify or relocate building, utilities, roads, bridges (except railroad bridges) and other facilities where necessary in the construction of the project.	2,887,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreation facilities.	322,000	$17,100
Pay not less than 5 percent of the cost allocated to flood control to bring the total non-Federal share of the flood control costs to 25 percent; and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	1,200,000	13,400
Total Non-Federal Costs	$6,600,000	$30,500

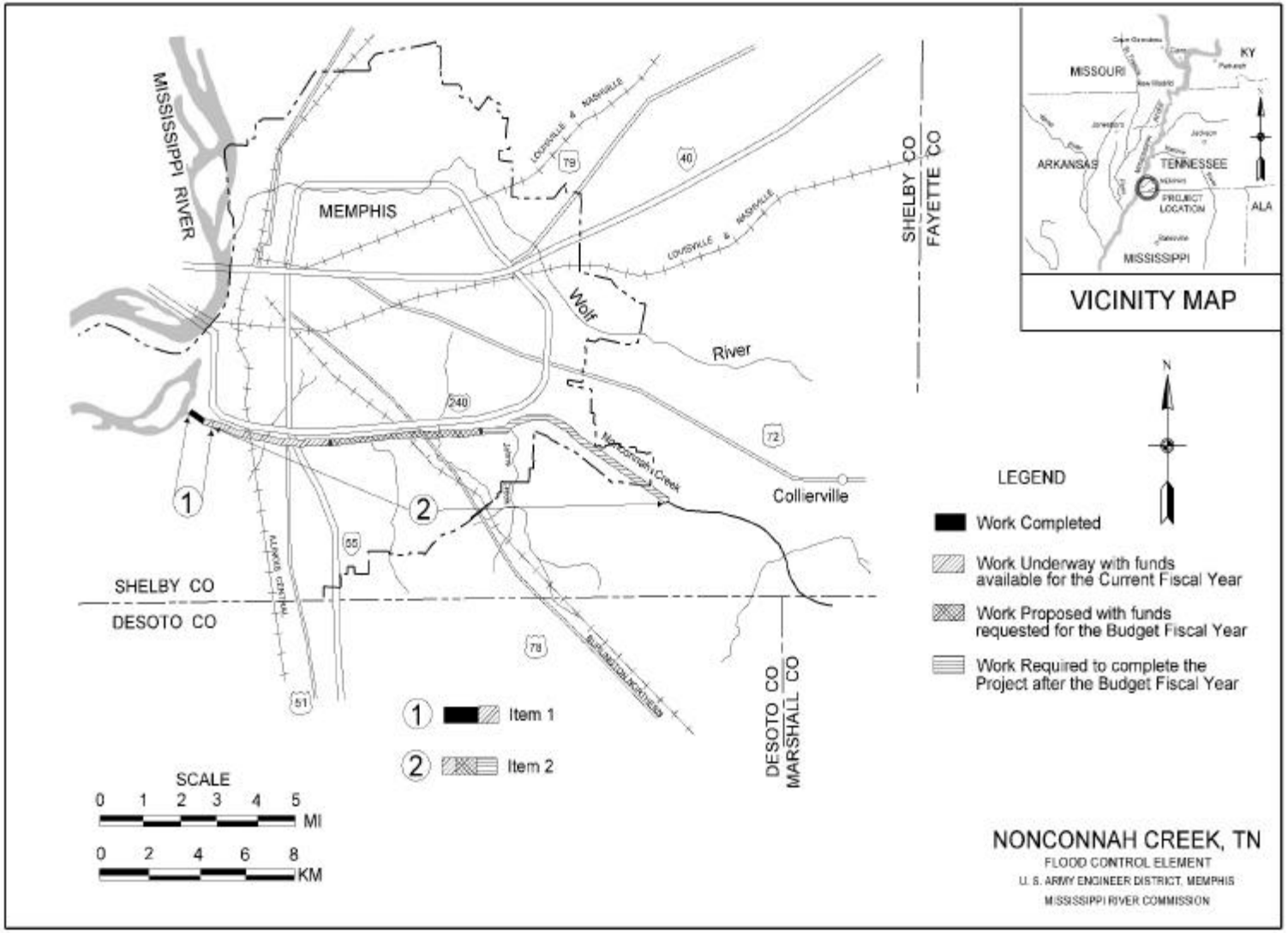
STATUS OF LOCAL COOPERATION: The Local Cooperation Agreement for the flood control features was executed on 23 July 1990, with the City of Memphis, Tennessee, serving as the local sponsor. The local sponsor has reviewed a draft Project Cooperation Agreement amendment to include the added recreation and environmental enhancement features and the local sponsor is ready to execute an agreement. The local sponsor has provided letters stating their financial and legal capabilities to sponsor these features, which are currently unfunded. The Non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $18,400,000 is the same as the latest estimate ($18,400,000) presented to Congress (FY 2001). However, the estimate includes changes to the following items:

Item	Amount
Price Escalation on Construction Features	$ 173,000
Price Escalation on Real Estate	14,000
Price Contract Award and Other Estimating Adjustments (Including Contingency Adjustments)	-187,000
Total	$ 0

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final supplemental Environmental Impact Statement was filed with the Environmental Protection Agency on 22 July 1982. Environmental assessments were made during Phase II General Design Memorandum studies, and changes were not of significant magnitude to warrant modifying the project Environmental Impact Statement.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986, and funds to initiate construction were appropriated in FY 1990.


MISSISSIPPI RIVER
MEMPHIS
LOUISVILLE & NASHVILLE
Wolf
River
Nonconnah Creek
Collierville
SHELBY CO
FAYETTE CO
SHELBY CO
DESOTO CO
DESOTO CO
MARSHALL CO
ILLINOIS CENTRAL
BURLINGTON NORTHERN
79
40
240
72
55
78
51
1
2
Item 1
Item 2
SCALE
0 1 2 3 4 5 MI
0 2 4 6 8 KM
VICINITY MAP
MISSOURI
KY
ARKANSAS
TENNESSEE
PROJECT LOCATION
ALA
MISSISSIPPI
N
LEGEND
Work Completed
Work Underway with funds available for the Current Fiscal Year
Work Proposed with funds requested for the Budget Fiscal Year
Work Required to complete the Project after the Budget Fiscal Year
NONCONNAH CREEK, TN
FLOOD CONTROL ELEMENT
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Construction

PROJECT: West Tennessee Tributaries, Tennessee (Continuing)

LOCATION: The project is located along the Obion and Forked Deer Rivers and their forks in West Tennessee, in Weakley, Madison, Gibson, Obion, Dyer, Crockett, Lauderdale and Haywood Counties, Tennessee.

DESCRIPTION: The project consists of improving 119 miles of channels of the Obion River and its principle tributaries, the North, South, Middle and Rutherford Fork; and improving 106 miles of channels of the Forked Deer and its North, South, and Middle Forks to provide adequate drainage outlets and reduce the frequency, depth, and duration of overflow. The work consists of clearing, cleanout, enlargement, and realignment of channels and construction of 7.6 miles of levee from Porter Gap to Island 25 on the Obion River. The project also includes the acquisition of 32,000 acres of fish and wildlife mitigation lands. Approximately 93 miles of channel improvement have been completed and 13,527 acres of land have been purchased for mitigation. Construction on the remaining channel items of the authorized project is now not implementable due to the denial of water quality certification by the State of Tennessee. The project is now being shut down. Shutdown work includes project management and project planning; continued coordination with the State of Tennessee on any problems that may arise during the shutdown process; real estate and environmental activities required in the turnover of the acquired mitigation lands to the State of Tennessee; stability analyses to determine required protection work for bridge and utility crossings in the uncompleted portions of the project; preparation of plans and specifications for the required protection work; and construction of the protection work. In 1992, the State of Tennessee requested that the West Tennessee Tributaries project be reactivated by incorporating environmentally sensitive guidelines into its design. The state subsequently set up a steering committee composed of representatives from state and Federal agencies and local interest groups. The objective of the steering committee was to develop a consensus plan for reformulation of the project. A consensus plan, (known as the Mission Plan), was completed in April 1994. A limited evaluation of the Stokes Creek and the Middle Fork Forked Deer River, including Buck Creek, Demonstration Projects, included in the Mission Plan has been completed. The demonstration projects were found to be feasible and were approved in September 1996 as minor modifications to the authorized project. Approval was also given to reformulate the remaining project in accord with the mission plan principles. Only shutdown work, the demonstration projects, and reevaluation activities are programmed. All work on the demonstration projects and the reformulation has been deferred until implementation issues regarding mitigation acquisition can be resolved.

AUTHORIZATION: Flood Control Acts of 1948 and 1966 and the Water Resources Development Acts of 1974 and 1976.

REMAINING BENEFIT-REMAINING COST RATIO: 1.9 to 1 at 2-1/2 percent.

TOTAL BENEFIT-COST RATIO: 2.2 to 1 at 2-1/2 percent.

INITIAL BENEFIT-COST RATIO: 2.6 to 1 at 2 at 2-1/2 percent (FY 1960).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in August 1983 at 1983 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$153,300,000	
Programmed Construction	$ 83,900,000		
Unprogrammed Construction	69,400,000		
Estimated Non-Federal Cost		$ 5,000,000	
Programmed Construction	$ 1,838,000		
Cash Contributions $ 0			
Other Costs 1,838,000			
Estimated Non-Federal Cost			
Unprogrammed Construction	$ 3,162,000		
Cash Contributions $ 0			
Other Costs 3,162,000			
Total Estimated Programmed Construction Cost		$ 85,738,000	
Total Estimated Unprogrammed Construction Cost		72,562,000	
Total Estimated Project Cost		158,300,000	
Allocations to 30 September 2000		$ 53,962,000	
Conference Allowance for FY 2001		500,000	
Allocation for FY 2001		224,000[1]	
Allocations through FY 2001		54,186,000	35
Allocation Requested for FY 2002		$ 25,000	35
Programmed Balance to Complete after FY 2002		29,689,000	
Unprogrammed Balance to Complete after FY 2002		69,400,000	

STATUS (1 January 2001)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Project Shutdown	90	Being Determined
Current Approved Plan	45	Indefinite
Entire Project	61	Being Determined

PHYSICAL DATA

Lands and Damages:	32,000 acres
Relocations	
Roads	13 bridges
Railroads	7 bridges
Channels:	
Obion River	56 miles
Obion River Forks	65 miles
Forked Deer River	5 miles
Forked Deer River Forks	101 miles
Total	225 miles
Levees and Floodwalls	7.6 mile

[1] Reflects $25,000 reduction assigned as savings and slippage, $250,000 reprogrammed from the project, and $1,000 rescinded in accordance with the Consolidated Appropriations Act, 2001.

JUSTIFICATION: The project is a flood control and drainage project and is a unit of the Comprehensive Plan for Flood Control, Mississippi River and Tributaries. The floods of record in 1935 and 1937 overflowed 455,000 acres of cleared and wooded area. This entire area will receive benefits from project construction due to improved flood control, drainage, and environmental restoration. Project construction will also eliminate overflow during the crop season on about 239,221 acres (162,644 cleared and 76,577 wooded). The principle population centers of the drainage basin include Jackson, Dyersburg, Union City, Humboldt, Trenton, and Milan, all in Tennessee, and Fulton, Kentucky. Farming, including truck farming, stock raising and dairying, is the principal occupation throughout the basin. Construction of the project will tend to stabilize the area's predominately agricultural economy. The project is credited with redevelopment benefits, benefits from flood damages prevented and benefits from a higher land use made possible by reducing flooding. Haywood and Lauderdale Counties within the project area are subject to substantial and persistent unemployment. Total average annual benefits (1983 price levels) are as follows:

Annual Benefits	Amount
Flood Control	$ 2,007,000
Area Redevelopment	23,000
Advance Replacement	30,000
Betterments	8,000
Fish and Wildlife Oriented Recreation	1,164,000
Timber	605,000
Stokes Creek	44,000
Total	$ 3,881,000

FISCAL YEAR 2002: The requested amount will be applied as follows:

Planning, Engineering and Design	$ 25,000
Total	$ 25,000

NON-FEDERAL COST: In accordance with the Flood Control Acts of 1948 and 1966 and the Water Resources Development Acts of 1974 and 1976, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$4,753,000	
Modify or relocate roads not crossing the project channels where necessary for the construction of the project.	$ 247,000	
Pay all costs of operation, maintenance, and replacement of flood control facilities.		$ 525,000
Total Non-Federal Costs	$5,000,000	$ 525,000

STATUS OF LOCAL COOPERATION: Necessary assurances were furnished by the Obion-Forked Deer Basin Authority on 2 June 1972 and were accepted on 14 June 1972. Section 221 of the Flood Control Act of 1970 (PL 91-611) is not applicable to other items of work but is required by Section 3 of the Water Resources Development Act of 1974 (PL 93-251) for the mitigation lands and for the levees authorized by the Water Resources Development Act of 1976 (PL 94-587). Assurances have not been furnished for the levees.

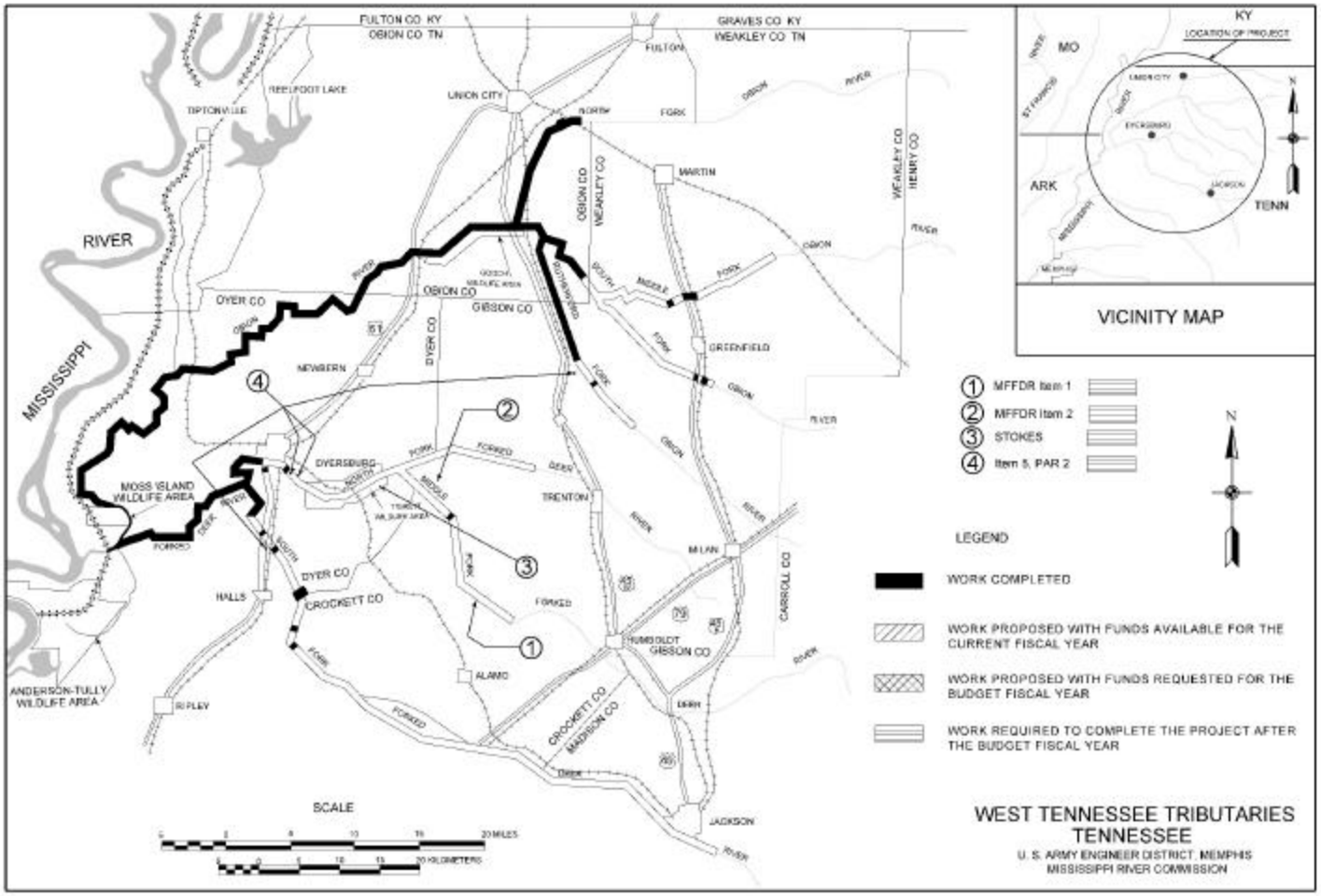
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $153,300,000 is an increase of $6,300,000 from the latest estimate ($147,000,000) presented to Congress (FY 2001). This change includes the following:

Item	Amount
Price Escalation on Construction Features	$4,359,000
Post Contract Award and Other Estimating Adjustments	867,000
Price Escalation on Real Estate	1,074,000
Total	$6,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A fully coordinated Environmental Impact Statement (EIS) in final form was forwarded to the Council on Environmental Quality on 4 May 1971. Court action on 2 March 1973 rejected the EIS directed revision of the EIS, and stated that the revised EIS was subject to District Court review. A final Environmental Impact Statement was submitted to the Council on Environmental Quality on 21 July 1975 and published in the Federal Register on 1 August 1975. The EIS was determined inadequate, and the injunction was continued by court decision dated 27 January 1978. A supplement to the EIS has been prepared to eliminate the deficiencies identified in the Memorandum Decision of 27 January 1978. The draft supplement to the EIS was provided to the public for review and to the Environmental Protection Agency for filing and review on 29 April 1982. The final supplement to the EIS was forwarded to the Environmental Protection Agency on 9 February 1983. The notice appeared in the Federal Register on 25 February 1983. The Record of Decision was signed by President, Mississippi River Commission on 8 August 1983.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1959 and for construction in Fiscal Year 1960.

In 1973, as a result of a lawsuit, the District court found the Environmental Impact Statement to be inadequate, and enjoined any further construction. The injunction was lifted in 1985. Another suit was filed that same year, which challenged the Environmental Impact Statement. The District Court denied the request for a temporary restraining order and preliminary injunction. The Corps filed a Motion to dismiss the case which was granted by the Court. A Notice of Appeal was filed by the Plaintiff in 1986, but the U.S. Sixth Circuit Court of Appeals dismissed the appeal as an impermissible collateral attack. Chester McConnell and Tennessee Environmental Council filed in Chancery Court of Davidson County an appeal and request for judicial review of Water Quality Control Board's final decision and order on Fowlkes Items 1-1 and 1-2 dated 8 May 1986. The Chancery Court affirmed the Board's decision and final order in 1987. Petitioners appealed and the case was remanded to the Tennessee Water Quality Control Board for further findings of facts and conclusions of law in relation to the issue of "issuance of permits for projects involving a portion of the subject river without considering the effect of such projects and/or any other contemplated projects upon the entire river." Finding of Facts and Conclusions of Law were issued by the Board after affirming their previous decision. Water quality certification for the next planned construction item, Sidonia, was denied by the Tennessee Department of Health and Environment. The Corps appealed this decision, but after numerous meetings and discussions with the State in an attempt to arrive at a mutually agreeable plan of improvement for the Sidonia item, and with no apparent resolution forthcoming, the Corps withdrew the appeal in May 1989. The Corps will not proceed with further construction or acquisition of related mitigation lands for the authorized project until the State of Tennessee provides water quality certification and necessary rights-of-way for construction of the project.


FULTON CO KY
OBION CO TN
GRAVES CO KY
WEAKLEY CO TN
UNION CITY
FULTON
MARTIN
GREENFIELD
NEWBERN
DYERSBURG
TRENTON
MILAN
HUMBOLDT
GIBSON CO
ALAMO
HALLS
RIPLEY
JACKSON
MOSS ISLAND WILDLIFE AREA
ANDERSON-TULLY WILDLIFE AREA
MISSISSIPPI
RIVER
DYER CO
OBION CO
GIBSON CO
CROCKETT CO
MADISON CO
CARROLL CO
WEAKLEY CO
HENRY CO
KY
MO
ARK
TENN
LOCATION OF PROJECT
VICINITY MAP
1 MFFDR Item 1
2 MFFDR Item 2
3 STOKES
4 Item 5, PAR 2
LEGEND
WORK COMPLETED
WORK PROPOSED WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
SCALE
20 MILES
20 KILOMETERS
WEST TENNESSEE TRIBUTARIES
TENNESSEE
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION

MISSISSIPPI RIVER COMMISSION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN, Maintenance, FY 2002

The program request of $144,444,000 provides for the day-to-day operation and ordinary maintenance, and repairs and dredging of the major features of the comprehensive project. It also consists of the revision and publication of alluvial valley maps and navigation charts. The fund requirements are based upon the normal recurring annual expenses determined from experience records during the past years, and the repair and dredging work necessary to maintain the projects in operable condition.

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Mississippi River	10,975,000	7,650,000	
Levees, AR, IL, KY, LA	(1,540,000)	(1,427,000)	1. None.
MS, MO, & TN	(9,435,000)	(6,223,000)	2. Repair levee slides at various locations.
Bonnet Carre, LA	1,289,000	1,854,000	
	(1,081,000)	(1,281,000)	1. Variation in Recreation Management activities.
	(208,000)	(573,000)	2. None.
Mississippi Delta Region	869,000	916,000	
Caernarvon, LA	(869,000)	(916,000)	1. None.
	(0)	(0)	2. None.
Revetments and Dikes	41,056,000	44,083,000	
	(1,710,000)	(1,760,000)	1. None.
	(39,346,000)	(42,323,000)	2. Repairs to revetments and dikes.
Dredging	13,239,000	17,379,000	
	(4,306,000)	(3,568,000)	1. Variation in survey requirements.
	(8,933,000)	(13,811,000)	2. Dredging.

MISSISSIPPI RIVER COMMISSION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN, Maintenance, FY 2002

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	 FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Memphis Harbor	1,828,000	1,118,000	
(McKellar Lake), TN	(110,000)	(85,000)	1. Variation in survey requirements.
	(1,718,000)	(1,033,000)	2. Dredging.
Greenville Harbor, MS	597,000	645,000	
	(18,000)	(19,000)	1. None.
	(579,000)	(626,000)	2. Dredging.
Helena Harbor, AR	399,000	434,000	
	(33,000)	(34,000)	1. None.
	(366,000)	(400,000)	2. None.
Vicksburg Harbor, MS	462,000	494,000	
	(24,000)	(25,000)	1. None.
	(438,000)	(469,000)	2. None.
Baton Rouge Harbor	199,000	216,000	
(Devil's Swamp), LA	(15,000)	(16,000)	1. None.
	(184,000)	(200,000)	2. None.
Mapping	1,073,000	1,097,000	
Arkansas	(292,000)	(287,000)	1. None.
Illinois	(9,000)	(9,000)	1. None.
Kentucky	(21,000)	(21,000)	1. None.
Louisiana	(455,000)	(476,000)	1. None.
Missouri	(35,000)	(35,000)	1. None.
Mississippi	(212,000)	(220,000)	1. None.
Tennessee	(49,000)	(49,000)	1. None.

MISSISSIPPI RIVER COMMISSION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN, Maintenance, FY 2002

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
St. Francis Basin, AR & MO	6,644,000	8,000,000	
Wappapello Lake, MO	(2,862,000)	(3,219,000)	1. Variation in operational labor costs.
	(3,782,000)	(4,781,000)	2. Relocate State and County Roads.
St. Francis River & Tributaries, AR & MO	8,598,000	6,678,000	
	(3,245,000)	(3,425,000)	1. None.
	(5,353,000)	(3,253,000)	2. Cleanout Below Hwy. 90, AR and Huxtable scour repair.
White River	2,314,000	1,102,000	
Backwater, AR	(640,000)	(660,000)	1. None.
	(1,674,000)	(442,000)	2. None.
Lower Arkansas River, AR	385,000	419,000	
North Bank	(15,000)	(16,000)	1. None.
	(370,000)	(403,000)	2. None.
South Bank	9,000	10,000	
	(9,000)	(10,000)	1. None.
	(0)	(0)	
Tensas Basin, AR & LA	2,067,000	2,000,000	
Boeuf and Tensas Rivers	(2,005,000)	(2,000,000)	1. None.
	(62,000)	(0)	2. None.
Red River Backwater	2,688,000	2,500,000	
	(2,583,000)	(2,500,000)	1. None.
	(105,000)	(0)	2. None.

MISSISSIPPI RIVER COMMISSION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN, Maintenance, FY 2002

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Yazoo Basin, MS			
Sardis Lake	8,791,000	6,500,000	
	(3,911,000)	(4,644,000)	1. Increased contract cost for operations.
	(4,880,000)	(1,856,000)	2. Dredging Shady Cove.
Arkabutla Lake	7,337,000	4,500,000	
	(3,112,000)	(3,920,000)	1. Increased contract cost for operations.
	(4,225,000)	(580,000)	2. Repairs to Gate and Dam.
Enid Lake	4,946,000	3,500,000	
	(3,576,000)	(3,500,000)	1. None.
	(1,370,000)	(0)	2. None.
Grenada Lake	5,204,000	4,500,000	
	(4,007,000)	(4,500,000)	1. Increased contract cost for operations.
	(1,197,000)	(0)	2. None.
Greenwood	854,000	250,000	
	(818,000)	(250,000)	1. Variation in pumping plant operations.
	(36,000)	(0)	2. None.
Yazoo City	664,000	150,000	
	(664,000)	(150,000)	1. Variation in pumping plant operations.
	(0)	(0)	2. None.
Main Stem	1,189,000	275,000	
	(998,000)	(275,000)	1. Variation in pumping plant operations.
	(191,000)	(0)	2. None.

MISSISSIPPI RIVER COMMISSION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN, Maintenance, FY 2002

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Tributaries	901,000	350,000	
	(900,000)	(350,000)	1. Variation in operations activities.
	(1,000)	(0)	2. None.
Will M. Whittington Auxiliary Channel	264,000	55,000	
	(263,000)	(55,000)	1. Variation in operations activities.
	(1,000)	(0)	2. None.
Big Sunflower	3,146,000	1,000,000	
	(139,000)	(109,000)	1. Variation in operations activities.
	(3,007,000)	(891,000)	2. Maintenance of Bogue Phalia.
Yazoo Backwater	308,000	180,000	
	(295,000)	(180,000)	1. Reduced operations activities.
	(13,000)	(0)	2. None.
Old River, LA	4,507,000	6,116,000	
	(3,487,000)	(3,969,000)	1. Variation in recreation and natural resource management.
	(1,020,000)	(2,147,000)	2. Dredging.
Atchafalaya Basin, LA	9,535,000	10,661,000	
	(4,373,000)	(4,400,000)	1. None.
	(5,162,000)	(6,261,000)	2. Dredging.
Lower Red River, LA	3 351,000	6,239,000	
	(26,000)	(54,000)	1. Scheduled periodic inspections.
	(3,325,000)	(6,185,000)	2. Repair Bayou Rapides Drainage Structure.

MISSISSIPPI RIVER COMMISSION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Flood Control, Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN, Maintenance, FY 2002

STATE Project Name	ESTIMATED OBLIGATIONS FY 2001 ($) Total (Operations) (Maintenance)	FY 2002 ($) Total (Operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for Change in Operations from FY 2001 and FY 2002 (10%+/-_). 2. Major Maintenance Items Budgeted in FY 2002 (Threshold $500,000)
Bayou Cocodrie &	55,000	56,000	
Tributaries, LA	(55,000)	(56,000)	1. None.
	(0)	(0)	2. None.
Atchafalaya Basin	1,422,000	2,065,000	
Floodway System, LA	(750,000)	(750,000)	1. None.
	(672,000)	(1,315,000)	2. Repair of Facilities, Roads and Public use areas.
Inspection of	1,342,000	1,452,000	
Completed Works			
Arkansas	(405,000)	(480,000)	1. None.
Illinois	(44,000)	(43,000)	1. None.
Kentucky	(31,000)	(29,000)	1. None.
Louisiana	(380,000)	(422,000)	1. None.
Missouri	(145,000)	(143,000)	1. None.
Mississippi	(250,000)	(249,000)	1. None.
Tennessee	(87,000)	(86,000)	1. None.
TOTAL	148,507,000	144,444,000	
	(50,854,000)	(50,672,000)	
	(97,653,000)	(93,772,000)	