

**FOURCHE BAYOU BASIN, ARKANSAS
LIMITED REEVALUATION REPORT**

**1,750-ACRE BOTTOMLAND ACQUISITION WITH
NATURE APPRECIATION AREA FACILITIES
EXECUTIVE SUMMARY**

The Fourche Bayou Basin project was authorized by Section 401(a) of the Water Resources Development Act of 1986 for flood control and allied purposes to include channelization and the acquisition of 1,750 acres of Fourche bottomland hardwoods with nature appreciation facilities for environmental preservation and recreation. The Assistant Secretary of the Army for Civil Works (ASA(CW)) made a Record of Decision (ROD) dated 31 May 1983, which excluded the 1,750-acre Fourche Bottoms acquisition with the nature appreciation facilities from Federal participation as these lands were not necessary for the flood damage reduction project to function properly.

The flood control portion of the project was constructed. In April 2000 after requests from the city of Little Rock, the ASA(CW) stated that a limited reevaluation report (LRR) would be prepared to decide whether to budget for the unconstructed work: the 1,750-acre acquisition with nature appreciation facilities.

The reevaluation found that the bottomland acquisition for environmental protection and flood reduction with nature appreciation facilities is consistent with policy. The recreation facilities include 3 miles of trails and boardwalks, bridges, restrooms, signage, parking, and an access road. The recreation features have a benefit to cost ratio of 1.8. An incremental analysis of the bottomland acquisition found that acquiring the entire 1,750 acres would result in the greatest increase to the wetland values and functions with an incremental cost per output of \$2,337.

The work is estimated to cost a total of \$5,185,000. The 1,750-acre acquisition is estimated to cost \$2,650,000, the LRR is estimated to cost \$520,000, and the nature appreciation facilities are estimated to cost \$2,015,000. The sponsor is the city of Little Rock, which is responsible for cost sharing and the operation and maintenance after construction. It's share of costs are estimated to be \$1,180,000 or \$2,117,000 depending on whether the cost sharing percentage required is 25 or 35 percent for the environmental protection measure. Likewise, the Federal share is estimated to be \$3,385,000 or \$3,068,000 at 75 or 65 percent.

The costs are within the increases allowed by Section 902 on the maximum cost of a project. No additional Congressional authorization is required and the LRR is within the Division Commander's authority to approve. The proposed action would have no significant detrimental impact upon the human or natural environment. If the project is funded, a Record of Decision will be prepared for either the Southwestern Division Commander or the Assistant Secretary of the Army for Civil Works to sign.

**FOURCHE BAYOU BASIN, ARKANSAS
LIMITED REEVALUATION REPORT**

TABLE OF CONTENTS

MAIN REPORT

Location and Description.....1

Background.....1

Purpose of Study.....2

Changes from Authorized Plan.....10

Sponsor Support and Financial Capability.....11

Findings and Conclusions.....11

Letter of Intent.....12

SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

- ENGINEERING APPENDIX**
- ECONOMIC APPENDIX**
- REAL ESTATE PLAN**

**LIST OF TABLES
(Starting on page 13)**

- COST APPORTIONMENT, 75-25 ENVIRONMENTAL PRESERVATION COST SHARING**
- COST APPORTIONMENT, 65-25 ENVIRONMENTAL PRESERVATION COST SHARING**
- TIMELINE**
- FUNDING SINCE AUTHORIZATION**

LIST OF PLATES

FOURCHE CREEK PROJECT AREA

**FOURCHE BAYOU BASIN, ARKANSAS
1,750-ACRE BOTTOMLAND ACQUISITION WITH
NATURE APPRECIATION AREA FACILITIES**

Location and Description

Fourche Bottoms is a highly productive ecosystem within the city limits of Little Rock, Pulaski County, Arkansas, that is threatened with degradation. Its hydrologic regime is integral to that of Fourche Creek. Within the basin's 160 square miles, the bottoms are the last remaining significant tract of natural bottomland hardwoods. This highly productive habitat type is in short supply in Arkansas and the Nation. Plate 1 shows the project area. The project location and vicinity maps are Figures 1 and 2 in the Engineering Appendix.

Background

A. The 4 September 1981, Report of the Chief of Engineers recommended a project for flood control and allied purposes in Fourche Bayou Basin to include Plan VII for flood control and the acquisition of 1,750 acres of Fourche bottomlands for environmental preservation.

B. The ASA(CW) Record of Decision (ROD) dated 31 May 1983, excluded the 1,750-acre acquisition of the Fourche Bottoms and construction of the nature appreciation facilities from Federal participation as they were not necessary for the flood damage reduction project to function properly. The Office of Management and Budget agreed.

C. The project was authorized by Section 401(a) of the Water Resources Development Act of 1986: *The project for flood control, Fourche Bayou Basin, Little Rock, Arkansas: Report of the Chief of Engineers, dated September 4, 1981, at a cost of \$33,400,000, with an estimated first Federal cost of \$25,100,000 and an estimated first non-Federal cost of \$8,300,000.*

D. The Report of the Chief of Engineers concurred in the findings, conclusions, and recommendations of the Board (The Board of Engineers for Rivers and Harbors (BERH)). The Board recommended that modifications for flood control and allied purposes in Fourche Bayou Basin, Arkansas, be authorized generally in accordance with the District Engineer's Plan VII and include acquisition of 1,750 acres of Fourche bottomlands for environmental preservation with the nature appreciation facilities located on the 1,750 acres of Fourche bottomlands. The Fourche flood control channels and approximately 1.7 miles of hiking and biking trails (four miles of trails were included in Plan VII) have been constructed.

E. After repeated requests by the city of Little Rock to acquire Fourche Bottoms as part of the project, the ASA (CW) by letter dated 13 April 2000, responded to Mayor Dailey stating that the Corps would prepare a limited reevaluation report that would be the decision

document to support a Project Cooperation Agreement for the acquisition of the 1,750 acres of bottomlands and the nature appreciation facilities.

F. On 9 May 2000, an Issue Resolution Conference (IRC) was held to address how the study would be conducted. A Project Management Plan was developed based on IRC guidance. It was approved by the Corps of Engineers Southwestern Division (CESWD) on 19 March 2001. Study results were discussed in a second IRC held on 29 August 2003. The Limited Reevaluation Report (LRR) was then drafted based on the memorandum for record for the IRC. See Table 3 for the project timeline.

Purpose of Study

This LRR with NEPA documents is to be the decision document for potential implementation of the unconstructed environmental preservation increment – the acquisition of 1,750 bottomland acres with nature appreciation features. The report updates the costs and the environmental factors, conditions, and considerations. It identifies changes and or modifications from the authorized plan. Discussion on how the unconstructed increment meets current law and policy is included. (Protection is considered a synonym for preservation in the similar way that ecosystem and environment are used interchangeably.) The flood damage reduction benefits of the bottomlands (also a priority output) are discussed in the Engineering Appendix. The LRR includes the updated feature costs and a discussion on Section 902, WRDA 1986, as amended, on the maximum cost of a project, and has concluded that no additional authorization is needed.

A. Environmental Preservation Land Acquisition: There was concern that some of the originally designated environmental preservation lands are not suitable for acquisition as some lands in the vicinity might be contaminated with hazardous, toxic, or radiological wastes (HTRW). An HTRW investigation was done. Details of the analysis and review were forwarded to the HTRW expert at CESWD and the Arkansas Department of Environmental Quality (ADEQ). Both concurred in the analysis; ADEQ did express concern with lead levels in the closed landfill east of Interstate Park (the originally designated Nature Appreciation Area). However, sample results downstream show no apparent HTRW concerns. From the areas of no apparent HTRW concern, 1,750 acres of bottomlands have been identified for acquisition. The selected bottomland acres areas are within the floodplain, connected by the creeks/flood control channel and are generally contiguous although separated by road and railroad crossings. See Plate 1. The HTRW report is included in the Engineering Appendix.

The Office of the Chief Council provided the opinion that the 1,750-acre acquisition does not have to adhere to the original delineated 1,750-acre site. The city of Little Rock currently owns approximately 1,342 acres of the bottomlands valued at \$805,200. To reach the total authorization of 1,750 acres, an additional 408 acres would need to be acquired at a cost of \$1,844,600. The already purchased lands are valued at the fair market value at time of purchase in accord with the Memorandum from CECW-AG, Subject Fourche Bayou Basin, Arkansas, dated 31 July 1996. The lands yet to be acquired are valued at their fair market value when they are made available for construction. The land acquisition costs are included

in the real estate plan attached to the LRR. The plan includes an acknowledgement that the lands to be acquired are free from HTRW. The changes in the project are addressed in the attached Supplemental Environmental Impact Statement.

The feasibility report inventoried the tree stands (1310), water areas (213), and the utility, road, and railroad acres (151) and determined that 5,467,437 board feet of lumber could be produced. The report projected that the benefits that would accrue to preservation of the bottomlands would not occur unless the lands were placed in public ownership. It stated that, if preserved, the native vegetation is the basic component of a flood plain ecosystem unique in an urban setting. It would prevent erosion, reduce downstream flooding, act as a pollution filter, increase percolation into the ground water system, and modify stream temperatures while maintaining fish and wildlife values. It would provide cultural resources values of open space, natural beauty, scientific study, outdoor education, and recreation.

The Engineering Appendix's General Environmental Setting documents the uniqueness and significance of habitat. It discusses endangered species and what could be lost without the bottomland preservation. The Engineering Appendix includes the environmental justification of acquiring the bottomlands. The incremental cost analysis has four increments: no action, and acquiring 1,342; 408; or 1,750 acres. The analysis is based on the degrading of the bottomlands significant habitat (without preservation) as its use changes. The acquisition of 1,750 acres has an incremental cost per output of \$2,337. This cost is half or less than that for the other two alternatives that have outputs. The incremental cost per output for the 1,342-acre acquisition is \$4,880 and it is \$19,130 for the 408-acre acquisition. Thus, the acquisition of the entire 1,750 acres would result in the greatest increase to the wetland values and functions.

Planning guidance (ER 1105-2-100, Section E-30, paragraph b.) states "Protection may be included as part of Civil Works ecosystem restoration initiatives, when such measures involve efforts to prevent future degradation of elements of an ecosystem's structure and functions. Protection consists of measures undertaken to protect and preserve elements of an ecosystem's structure and functions against future degradation." Paragraph f. states that land acquisition in ecosystem restoration plans should be kept to a minimum, with land value not exceeding 25 percent of the total project costs. The Chief's Report, dated 4 September 1981, recommended Plan VII in concurrence with the BERH recommendation. The cost of the plan at October 1980 prices was \$20,080,000 including the cost of nature appreciation facilities and the \$2,310,000 cost for acquisition of 1,750 acres of land. If the plan had been implemented as proposed, the land acquisition cost would have been only 11.5 percent of the total project cost. The current escalated cost for the land acquisition, recreation, and report is estimated to be \$5,185,200. The remaining increment is only 15.5 percent of the authorized total project cost of \$33,400,000 and only 14.4 percent (the land cost of \$2,649,800 is less than 7.4 percent) of the estimated total project cost of \$35,914,000. Thus, the land cost does not exceed the 25 percent of total project costs.

Civil Works Ecosystem Restoration and Protection Policy (ER 1165-2-501) notes further that protection initiatives should be developed in the context of broader watershed or regional water resource management programs and objectives, which may involve contributive actions

by other Federal and non-Federal agencies and stakeholders. In this regard on 21 July 2003, Fourche Creek was selected by the U.S. Army Corps of Engineers and the Environmental Protection Agency to be one of eight water bodies to receive an Urban Rivers Restoration Initiative designation. This designation recognizes the efforts of several government agencies and non-profit groups who have been working together toward establishing and restoring an urban natural area along Fourche Creek in Little Rock, Arkansas. Works including public access, nature and canoeing trails, plantings, erosion and pollution control, creating stream buffers, wetland basins, and stream restoration are being planned and accomplished. This would result in an improved and protected urban hardwood bottomland with wildlife and aquatic habitat restored.

B. Flood Control/Hydrologic Regime: On 13 September 1978, Fourche Creek flooded. In Little Rock, the flood claimed eight lives and caused an estimated \$11 million in property damages. It was observed that the railroad tracks that transect Fourche Bottoms acted like a dam, ponding the flood waters and increasing the flood heights upstream to University Avenue. However, the channel plans in the 1979 feasibility report were formulated on the basis that the Bottoms would act as one large retention pond and that the channelization downstream of the Bottoms would reduce upstream flood heights to University.

When the ASA(CW) signed the ROD on 31 May 1983 deleting the acquisition, he stated that ... “The Chief of Engineers also recommended acquisition of 1,750 acres of land in Fourche Creek Bottoms for environmental preservation, including a 20-acre nature appreciation area. However, these features are not required for the flood damage reduction project to function properly, and I have not concurred with Federal participation in their implementation... and that acquisition of Fourche Creek Bottoms may be accomplished by local interests if they find this to be desirable for environmental preservation.” ASA(CW)’s conclusion followed that of BERH that “the 1,750 acres of bottomlands are not required for the project to function properly nor are these lands directly or indirectly impacted by the project.” However, the hydrology and hydraulic analysis in the 1985 General Design Memorandum (GDM) No. 1, showed that the Fourche Bottoms flood storage was needed to reduce upstream flood damages. The feasibility report channel plan that was recommended by the ASA(CW) for authorization had to be modified.

The GMD required relief openings added to three railroad embankments within the bottoms. Then the entire bottoms could act effectively as one retention pond to lower the upstream water surface elevations and the resulting flood damages at University Ave. As well as offering a flood storage area that could reduce upstream flood damages, the constructed railroad track relief openings partially restored the bottoms natural hydrologic regime to what it was prior to the construction of the railroads. Protection of the environment to prevent future degradation of an ecosystem if it requires Corps engineering expertise is an appropriate measure. Engineering expertise provided partial restoration of the bottoms with the construction of the relief openings. To protect the 1,750-acres of hardwood bottomlands from future degradation, the acquisition of the bottomlands would complete the measure.

Therefore, the relief openings provided two outputs: flood reduction and environmental restoration. Fourche Bottoms is a volumetrically determined floodway and contains wetlands;

however, preservation of these Fourche bottomland hardwoods would only be assured with acquisition. Further discussion is presented in the Engineering Appendix including the water surface elevation changes existing and modified with the Hydraulic differentials computed to demonstrate the flood storage function of Fourche Bottoms.

C. Nature Appreciation Facilities: The 1979 feasibility report had designated a 20-acre area for the nature appreciation facilities. (The 20-acre site is within the 30 acres shown on Plate 1 as being owned by Little Rock but not included in the 1,750-acre acquisition.) This area is and was at the time a covered landfill; the area currently has tornado damage debris deposited on it. Because of HTRW concerns, the originally designated 20-acre area was excluded from acquisition and another site was selected for the nature appreciation facilities. The report described the nature appreciation facilities as including: 0.75 miles of foot trails, information signs, plant labels, a restroom, access road, parking area, boardwalks and bridges in wet or swampy areas, and located in the Fourche Bottoms between Interstate 30 on the east and University Avenue on the west. The LRR has modified these features to adapt to a new site, to meet Americans with Disabilities Act (ADA), signed 26 July 1990, requirements, and to include 2.3 miles of trail length authorized but not constructed along with the channel. The facilities include approximately 3 miles of trail including boardwalk sections with 0.5 miles of ADA compliant trails for the purpose of recreation with the visitation experience taking advantage of the natural and educational values.

The access road is to be an improved existing gravel road approximately a mile in length with the first 600 feet paved. This road gives the least disturbance to the bottomlands while giving access to diverse settings. Two parking areas and a restroom site are provided to meet the expected visitation while having the least adverse effect to the area. Direction and plant signage is included along the trails that allow access to various natural settings. Marsh areas with water plants and wading birds are to be observed as are the Fourche Creek widening with giant cypress and on through the bottoms with its various its tree species. There are boardwalks at creek crossings and swampy areas. Because the current plan for the nature appreciation facilities spreads the human impacts to a larger area (although a less concentrated area than the originally designated 20-acre site), the nature appreciation facilities would be closed to public access from dawn to dusk. For further descriptions, see the engineering appendix. For a discussion on the recreation benefits, see the economic appendix. The cost of the facilities is estimated to be \$1,904,000 (excluding escalation) at a June 2004 price level at 5.375 percent interest with annual benefits of \$286,100 and a benefit to cost ratio of 1.8.

The recreation features for the Fourche Bayou project are within the 10 percent cap of the project cost without recreation as described in ER 1105-2-100, E-49. The facilities are limited to those shown in Exhibit E-3. Also, the features are compatible with the bottomland acquisition for environmental preservation. The visitation experience is to take advantage of the natural and educational values. With the exception of a narrow 1.5-acre strip owned by the city where the first segment of the access road leads into the bottomland acres, all of the recreation facilities are included in the 1,750-acres. The access road strip encompasses the utility road that goes between a trucking firm and the interstate to access the bottoms. As the strip is without significant environmental values, this acreage was excluded for the

environmental protection acquisition. In accord with ER 1105-2-100 and EP 1165-2-502, the strip could be acquired as recreation land for access.

D. Supplemental Environmental Impact Statement (SEIS): A SEIS is being prepared to evaluate the environmental impacts associated with the acquisition of 1,750 acres of bottomland hardwoods known as Fourche Bottoms and the installation of nature appreciation facilities. Agency coordination is ongoing and no sites of significant cultural resources are known to exist within the project area. The construction of this project could result in temporary and minor impacts to water quality and some loss of habitat in the immediate project area; however, none of the impacts have been determined to warrant further investigation or mitigation measures. Therefore, this office considers the proposed action to have no significant detrimental impact upon the human or natural environment. The implementation of the proposed project will serve to preserve and protect Fourche Bottoms from future development. The SEIS will support a new Record of Decision (ROD). This draft ROD will not be signed until the proposed action achieves environmental compliance with applicable laws and regulations.

E. Project Costs: The total estimated cost of the authorized project (the completed flood control channel project and the not completed land acquisition and implementation of the nature appreciation facilities) is \$35,914,000 including escalation costs for the proposed features. The current Little Rock District estimate for the cost of the remaining features is \$5,185,200; the 1,750-acre acquisition is estimated to cost \$3,169,800 including the LRR cost and the nature appreciation facilities are currently estimated at \$2,015,400. The project cost is within the constraints of Section 902, WRDA 86, and Maximum Cost of Projects and does not require a need for additional authorization. The maximum allowable cost of the project is calculated to be \$62,458,000 and the recreation feature costs are less than ten percent of the total project cost. See the Economics Appendix for the maximum cost of project analysis.

F. Cost Sharing: Policy Guidance Letter (PGL) No. 48, Cost Sharing for Specifically Authorized Environmental Projects, sets forth U.S. Army Corps of Engineers policy regarding the cost sharing for construction (implementation) of specifically authorized projects and separable elements for ecosystem (environmental) protection and restoration and implements Section 210 of the Water Resources Development Act of 1996 (WRDA 96). The cost sharing established by Section 210 added environmental protection and restoration as a project purpose to be cost shared by the non-Federal sponsor at 35 percent. However, Section 210 applies only to projects authorized after 12 October 1996. Therefore, PGL 48 states that ecosystem restoration projects authorized by WRDA 96 and prior legislation will be cost shared in accordance with the provisions of the authorizing legislation.

Thus, the cost sharing for the 1,750-acre Fourche Bottoms acquisition would be 25 percent non-Federal and 75 percent Federal as provided by the percentages of costs in the authorizing legislation, Section 401 of WRDA 1986. The nature appreciation facilities are considered recreational features with a non-Federal cost share requirement of 50 percent of the separable costs as provided by the cost sharing provisions of Section 103 of WRDA 1986, as amended. Section 103 also provides that the sponsor is required to pay 100 percent of the costs for operation, maintenance, repair, replacement, and rehabilitation. See the following cost

apportionment tables. The first table has ecosystem protection cost shared at 25 percent non-Federal. The second apportionment displays the ecosystem protection cost sharing at 35 percent non-Federal, the current requirement for projects authorized after 12 October 1996. Following are Local Cooperation requirements for an environmental protection project.

- a. Provide a minimum of 25 percent (or 35 percent, see above discussion on cost sharing) of total project costs as further specified below:
 1. Provide, during the first year of construction, any additional funds needed to cover the non-federal share of project costs;
 2. Provide all lands, easements, and rights-of-way, including suitable borrow and dredged or excavated material disposal areas, and perform or assure the performance of all relocations determined by the Federal Government to be necessary for the construction, operation, and maintenance of the project;
 3. Provide or pay to the Federal Government the cost of providing all retaining dikes, waste weirs, bulkheads, and embankments, including all monitoring features and stilling basins, that may be required at any dredged or excavated material disposal areas required for the construction, operation, and maintenance of the project; and
 4. Provide, during construction, any additional costs necessary to make its total contribution equal to 25 percent (or 35 percent, percentage yet to be determined) of total project costs;
- b. Provide the non-Federal share of that portion of the costs of mitigation and data recovery activities associated with historic preservation, that are in excess of 1 percent of the total amount authorized to be appropriated for the project, in accordance with the cost sharing provisions of the agreement;
- c. Do not use Federal funds to meet the non-Federal Sponsor's share of total project costs unless the Federal granting agency verifies in writing that the expenditure of such funds is authorized;
- d. Operate, maintain, repair, replace and rehabilitate the project, or functional portion of the project, including mitigation, at no cost to the Federal Government, in a manner compatible with the project's authorized purposes and in accordance with applicable Federal and State laws and regulations and any specific directions prescribed by the Federal Government;
- e. Give the Federal Government a right to enter, at reasonable times and in a reasonable manner, upon property that the Non-Federal Sponsor, now or hereafter, owns or controls for access to the project for the purpose of inspecting, operating, maintaining, repairing, replacing, rehabilitating, or completing the project. No completion, operation, maintenance, repair, replacement, or rehabilitation by the Federal Government shall relieve the Non-Federal Sponsor of responsibility to meet the

Non-Federal Sponsor's obligations, or to preclude the Federal Government from pursuing any other remedy at law or equity to ensure faithful performance;

- f. Hold and save the United States free from all damages arising from the construction, operation, maintenance, repair, replacement, and rehabilitation of the project and any project-related betterments, except for damages due to the fault or negligence of the United States or its contractors;
- g. Perform, or cause to be performed, any investigations for hazardous substances that are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Public Law 96-510, as amended (42 U.S.C. 9601-9675), that may exist in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be required for the initial construction, periodic nourishment, operation, and maintenance of the project. However, for lands that the Federal Government determines to be subject to the navigation servitude, only the Federal Government shall perform such investigations unless the Federal Government provides the Non-Federal Sponsor with prior specific written direction, in which case the Non-Federal Sponsor shall perform such investigations in accordance with such written direction;
- h. Assume, as between the Federal Government and the non-Federal Sponsor, complete financial responsibility for all necessary cleanup and response costs of any CERCLA regulated materials located in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be necessary for the initial construction, periodic nourishment, operation, or maintenance of the project;
- i. Agree that, as between the Federal Government and the Non-Federal Sponsor, the Non-Federal Sponsor shall be considered the operator of the project for the purpose of CERCLA liability, and to the maximum extent practicable, operate, maintain, and repair the project in a manner that will not cause liability to arise under CERCLA;
- j. Prevent obstructions of or encroachments on the project (including prescribing and enforcing regulations to prevent such obstruction or encroachments) which might reduce the level of protection it affords, hinder operation and maintenance, or interfere with its proper function, such as any new developments on project lands or the addition of facilities which would degrade the benefits of the project;
- k. Keep and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project, for a minimum of 3 years after completion of the accounting for which such books, records, documents, and other evidence is required, to the extent and in such detail as will properly reflect total costs of construction of the Project, and in accordance with the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments at 32 Code of Federal Regulations (CFR) Section 33.20;

- l. Comply with Section 221 of Public Law 91-611, Flood Control Act of 1970, as amended (42 U.S.C. 1962d-5), and Section 103 of the Water Resources Development Act of 1986, Public Law 99-662, as amended (33 U.S.C. 2213), which provides that the Secretary of the Army shall not commence the construction of any water resources project or separable element thereof, until the non-Federal sponsor has entered into a written agreement to furnish its required cooperation for the project or separable element;
- m. Comply with all applicable Federal and State laws and regulations, including, but not limited to, Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto, as well as Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army", and all applicable Federal labor standards and requirements, including but not limited to 40 U.S.C. 3141- 3148 and 40 U.S.C. 3701 – 3708 (revising, codifying and enacting without substantial change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c *et seq.*); and,
- n. Comply with all applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended (42 U.S.C. 4601-4655), and the Uniform Regulations contained in 49 CFR Part 24, in acquiring lands, easements, and rights-of-way, necessary for the initial construction, periodic nourishment, operation, and maintenance of the project, including those necessary for relocations, borrow materials, and dredged or excavated material disposal, and inform all affected persons of applicable benefits, policies, and procedures in connection with said Act.
- o. For the recreation features of the project provide 50 percent of the separable project costs allocated to recreation as further specified below:
 1. Provide, during construction, any additional funds needed to cover the non-Federal share of design costs;
 2. Provide all lands, easements, and rights-of-way, including suitable borrow and dredged or excavated material disposal areas, and perform or assure the performance of all relocations determined by the Government to be necessary for the construction, operation, and maintenance of the project;
 3. Provide or pay to the Government the cost of providing all retaining dikes, waste weirs, bulkheads, and embankments, including all monitoring features and stilling basins, that may be required at any dredged or excavated material disposal areas required for the construction, operation, and maintenance of the project; and

4. Provide, during construction, any additional costs as necessary to make its total contribution equal to 50 percent of the separable project costs allocated to recreation.

Changes from Authorized Plan.

All of the deviations from the authorized project are listed below. The specific features for authorization were listed in the Fourche Bayou Basin Feasibility Report dated October 1979. All the deviations are within the Chief of Engineers discretionary privilege to grant.

A. Authorization provided for the acquisition of 1,750 acres of bottomlands for the purpose of Environmental Preservation. The report proposes the same acreage, but some different lands. The cost of the bottomland acquisition was \$2,310,000 at an October 1978 price level. The current cost of the acquisition is estimated to be \$2,649,800.

B. In the nature appreciation area, 0.75 miles of foot trails and boardwalks and bridges (in wet and swampy areas) were authorized. The plan proposes 3 miles of trail including the 0.75 miles plus another 2.3 miles that were not constructed in other segments of the authorized plan. Americans with Disabilities Act (ADA) compliance was added to 0.5 miles of the proposed trail length although not considered in the feasibility report. The cost of the nature appreciation facilities (including the trails, boardwalks, bridges, restroom, signage, parking, and access road) and the 2.3 miles of hiking trails in the feasibility report were estimated to be \$286,000 at an October 1978 price level with annual recreation benefits of \$128,000. The proposed facilities are estimated to cost \$2,015,400 including escalation costs with annual benefits of \$286,100 and a benefit to cost ratio of 1.8.

C. Information Signs (including plant labels) were authorized. The project proposes educational and directional signage to include plant labels, an open-air visitor's center/kiosk, and interpretive panel.

D. One restroom was authorized. Portable restroom facilities are proposed to be located at the main parking area in the northern utility right-of-way. These facilities will be easily removed to avoid flooding.

E. An access road was authorized without specific details provided. Approximately one mile of gravel and paved roadway is proposed. The road will also require the acquisition of 1.5 acres of land to be acquired for the road access.

F. One parking area was identified with no specifics on capacity. Proposed are one parking area for nine cars, one ADA space, and one bus space with another parking area for 11 cars, one ADA space, and two bus spaces. Sufficient parking spaces are proposed to accommodate the estimated visitation and are located to minimize environmental impact.

G. Change in Total Project First Cost is shown in the following display. Most of the increase in cost is attributable to a change in price levels. However, the nature appreciation facilities were required to be relocated to a different site and now cover a larger area.

Compliance with ADA and capacity needs was considered for the proposed plan for the parking that was not addressed in the feasibility report. The access road, boardwalks, and bridges may be longer than in the feasibility report but no details were provided in that report.

Project as:	Proposed with Escalation	Authorized	Updated Authorized	As last Reported w/o Escalation
Cost	\$35,914,000	\$33,400,000	\$55,778,000	\$35,400,000

Sponsor Support

The community has embraced the project. The mayor of Little Rock, Audubon Arkansas, and schools are behind the project. Fourche Bottoms is one of the largest urban wetlands and the city of Little Rock would like to showcase this important urban natural area. See the attached letter of intent from Mayor Dailey on the following page.

Sponsor Financial Capability

The city expects its cost sharing percentage to be the authorized 25 percent for the bottomland acquisition. After reviewing the project documentation, the city of Little Rock requested that costs be reduced to limit its out-of-pocket expenditures to \$800,000. To that end, recreation features estimated to cost \$440,000 were removed from the project. In addition, it was noticed that the already acquired lands cost included \$195,000 for land cost contingency and escalation. This amount was not included in the following project cost apportionment. The features modified include removal of the flush restroom and the utilities. The path 1 boardwalk was shortened by 200 feet: the last 100 feet of path 1 south and the last 100 feet of path 1 north. Proportional reductions in the contingency, escalation, preconstruction engineering and design (PED) – design, and supervision and administration - construction inspection were reduced as reflected in the cost apportionment and benefit-to cost ratio.

Findings and Conclusions

The 1,750-acre Fourche Bayou bottomland acquisition for environmental protection and flood reduction with nature appreciation facilities is consistent with policy. The work is estimated to cost a total of \$5,185,200. The 1,750-acre acquisition is estimated to cost \$2,649,800, the LRR is estimated to cost \$520,000, and the nature appreciation facilities are estimated to cost \$2,015,400. The costs are within the increases allowed by Section 902 on the maximum cost of a project. Thus, the Secretary of the Army is authorized to make the changes without additional Congressional authorization. The Limited Reevaluation Report is within the Division Commander’s authority to approve. The proposed action would have no significant detrimental impact upon the human or natural environment. If the project is funded, a Record of Decision will be prepared for either the Southwestern Division Commander or the Assistant Secretary of the Army for Civil Works to sign.



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August 15, 2005

Colonel Wally Z. Walters ^{8/19/2005}
Corps of Engineers
District Engineer
700 West Capitol
P.O. Box 867
Little Rock, Arkansas 72203-0867

Dear Colonel Walters:

The City of Little Rock intends to participate with the US Army Corps of Engineers as a project sponsor for the completion of the Fourche Bayou Basin project. The remaining work is the acquisition of 1,750-acres of bottomland hardwoods and the construction of nature appreciation facilities. I understand that the City of Little Rock's cost-sharing responsibility during construction would be 50 percent for the nature appreciation facilities and that the land acquisition is considered to be environmental restoration with the current non-Federal cost share requirement of 25 percent. I also understand that the costs of design shall be shared in the same percentage as the construction costs for each of these purposes, 50 percent for the nature appreciation facilities and 25 percent for environmental restoration. Further, it is understood that this letter is not a contractual obligation on the part of the City of Little Rock, and either party may discontinue the project development process.

With a current estimate of \$4,665,000 to complete the Fourche Bayou Basin project consisting of the bottomland acquisition (\$2,650,000) and the nature appreciation facilities (\$2,015,000); I understand that Little Rock's remaining outlay is estimated to be \$800,800 after accounting for the credit for the bottomlands already purchased by the city with an estimated value of \$805,200. The city is still very interested in this project and when funding becomes available, we will to provide our share to preserve Fourche Bottoms as noted in the project cooperation agreement between the US Army Corps of Engineers Corps and the City of Little Rock.

Sincerely,

Jim Dailey
Mayor

TABLE 1
FOURCHE BAYOU BASIN, ARKANSAS
COST APPORTIONMENT, 75-25 ENVIRONMENTAL PRESERVATION COST SHARING
(includes \$333,000 of Fourche PED costs not in total E&D costs in cost ledger)

ITEM	FEDERAL	NON-FEDERAL	TOTAL
Flood Control			
Lands and Damages	\$47,948+	\$3,561,204*	\$3,609,152
Relocations			
Railroad Bridges	4,207,295+	0	4,207,295
Other	0	4,345,924*	4,345,924(1)
Channels	12,091,083+	0	12,091,083(3)
Channel work by city, 104 credit	160,000	0	160,000
Engineering and Design	3,743,486+	0	3,743,486
Supervision and Administration	<u>2,213,860 +</u>	<u>0</u>	<u>2,213,860</u>
Subtotal, Flood Control	22,463,672	7,907,128	30,370,800
Cash Contribution, 5%	<u>(1,518,540)</u>	<u>1,518,540</u>	
Subtotal, Flood Control	\$ 20,945,132	\$ 9,425,668	\$ 30,370,800
Recreation			
Nature Appreciation Area, Estimated Cost	\$ 1,007,700	\$ 1,007,700	\$ 2,015,400 (2)
Hiking and Biking Trails incl. w/ channel	<u>179,000</u>	<u>179,000</u>	<u>358,000 (6)</u>
Subtotal, Recreation	1,186,700	1,186,700	2,373,400
Environmental Preservation			
Bottomland Hardwood Acquisition, 1750 acres	\$ 1,987,350	\$ 662,450	\$ 2,649,800
Limited Reevaluation Report	<u>390,000</u>	<u>130,000</u>	<u>520,000</u>
Subtotal, Environmental Preservation	2,377,350	792,450	3,169,800
Total Project Cost	\$ 24,509,182	\$ 11,404,818	\$ 35,914,000
Percent of Total Cost	68%	32%	100%
Contributions to Date:	FEDERAL	CITY	
Lands		\$4,366,404(4)	
Construction		4,505,924(5)	
Cash, (FED \$20,597,000+333,000+520,000)	<u>\$ 21,450,000</u>	<u>1,731,678</u>	
Total	\$ 21,450,000	\$ 10,604,006	
Contributions Required:	<u>\$3,059,182</u>	<u>\$800,812</u>	

(1) Includes city expenditures less Corps payments for channel work @ 36th, Parham, and Barrow Bridges (\$112,179.5).

(2) Includes E&D, S&A, contingencies, escalation, and \$3000 for land for road.

(3) Ledger amts less recreation costs included with channel costs (\$358,000)

(4) Includes land acq. (\$3,561,204) and bottomland acq. to date (est. value \$805,200)

(5) Includes Section 104 credit for flood control work previously performed by city (\$160,000).

(6) Recreation cost breakdown taken from PB-2A, 25 Jun 96

* City and +Corps costs taken from their cost ledgers.

TABLE 2
FOURCHE BAYOU BASIN, ARKANSAS
COST APPORTIONMENT, 65-35 ENVIRONMENTAL PRESERVATION COST SHARING
(includes \$333,000 of Fourche PED costs not in total E&D costs in cost ledger)

ITEM	FEDERAL	NON-FEDERAL	TOTAL
Flood Control			
Lands and Damages	\$47,948+	\$3,561,204*	\$3,609,152
Relocations			
Railroad Bridges	4,207,295+	0	4,207,295
Other	0	4,345,924*	4,345,924(1)
Channels	12,091,083+	0	12,091,083(3)
Channel work by city, 104 credit	160,000	0	160,000
Engineering and Design	3,743,486+	0	3,743,486
Supervision and Administration	<u>2,213,860 +</u>	<u>0</u>	<u>2,213,860</u>
Subtotal, Flood Control	22,463,672	7,907,128	30,370,800
Cash Contribution, 5%	<u>(1,518,540)</u>	<u>1,518,540</u>	<u> </u>
Subtotal, Flood Control	\$ 20,945,132	\$ 9,425,668	\$ 30,370,800
Recreation			
Nature Appreciation Area, Estimated Cost	\$ 1,007,700	\$ 1,007,700	\$ 2,015,400 (2)
Hiking and Biking Trails incl. w/ channel	<u>179,000</u>	<u>179,000</u>	<u>358,000 (6)</u>
Subtotal, Recreation	1,186,700	1,186,700	2,373,400
Environmental Preservation			
Bottomland Hardwood Acquisition, 1750 acres	\$ 1,722,370	\$ 927,430	\$ 2,649,800
Limited Reevaluation Report	<u>338,000</u>	<u>182,000</u>	<u>520,000</u>
Subtotal, Environmental Preservation	2,060,370	1,109,430	3,169,800
Total Project Cost	\$ 24,192,202	\$ 11,721,798	\$ 35,914,000
Percent of Total Cost	67%	33%	100%
Contributions to Date:	Federal	City	
Lands		\$4,366,404(4)	
Construction		4,505,924(5)	
Cash, (FED \$20,597,000+333,000+520,000)	<u>\$ 21,450,000</u>	<u>1,731,678</u>	
Total	\$ 21,450,000	\$ 10,604,006	
Contributions Required:	\$2,742,202	\$1,117,792	

(1) Includes city expenditures less Corps payments for channel work @ 36th, Parham, and Barrow Bridges (\$112,179.5).

(2) Includes E&D, S&A, contingencies, escalation, and \$3000 for land for road.

(3) Ledger amts less recreation costs included with channel costs (\$358,000)

(4) Includes land acq. (\$3,561,204) and bottomland acq. to date (est. value \$805,200)

(5) Includes Section 104 credit for flood control work previously performed by city (\$160,000).

(6) Recreation cost breakdown taken from PB-2A, 25 Jun 96

* City and +Corps costs taken from their cost ledgers.

TABLE 3	
FOURCHE BAYOU BASIN, ARKANSAS	
TIMELINE	
DATE	EVENT
1971	Basic H&H for feasibility report done.
13 Sep 1978	September 1978 flood; the bottoms act as 3 detention ponds not one.
Oct 1979	Fourche Bayou Basin Feasibility Report and EIS, Plan X was recommended to include channel clearing and widening, highway and railroad bridge widening, utility relocations, 4 miles of trails, and a 20-acre nature appreciation area within 1750-acres of bottom land for environmental preservation.
29 Feb 1980	Supplemental Hydrology Report recommended hydrology revised in GDM I.
11 Mar 1980	SWL, despite above observation, tells BERH that Bottoms storage benefits are the same w/wo project and that channelization downstream of the Bottoms would have significant benefits upstream at University Avenue.
19 Jan 1981	BERH finds that the bottoms are not required for the proposed flood control project to function properly nor are these lands directly or indirectly impacted by the project. However, it recognized their exceptional environmental quality and recommended their preservation by acquisition.
4 Sep 1981	Chief of Engineers concurs in the findings, conclusions, and recommendations of the Board (BERH) in sending the Fourche Bayou Basin report to Congress.
29 April 1983	OMB agrees with ASA(CW) to delete bottomlands as they are not required for the project to function properly nor are these lands impacted by the project.
31 May 1983	ASA(CW) signed ROD to do channelization but excluded 1,750 acres for environmental preservation with nature appreciation facilities.
Sep 1985	Fourche Bayou General Design Memorandum No. 1 required relief openings added to 3 railroad embankments within the bottoms so that the entire bottoms can act as one retention pond and lower the water surface at University Ave.
28 Aug 1986	Supplement to GDM I submitted as sponsor refused to accept GDM I plan due to cost and in response to CESWD GDM I comments.
17 Nov 1986	PL 99-662 authorized the Fourche project with 1,750 acres of bottomlands for environmental protection, including nature appreciation facilities.
April 1987	FDM 2, Channel Improvements
20 Aug 1987	Local Cooperation Agreement (LCA) signed (flood control and recreation features - no environmental preservation or appreciation).
March 1988	FDM 3, Railroad Relocations
Sep 1987 - Sep 1995	Constructed flood control channel and approximately 1.7 miles of recreation trail.
26 July 1995	The City of Little Rock requested Corps to complete project by acquiring bottomlands.
25 Apr 1996	ASA(CW) memo asked HQUSACE for ways to obtain funds to amend the LCA and complete the project in response to the local sponsor's request.
12 July 1996	ASA(CW) memo concurred with Director of Civil Works to consider budgeting in FY 1998 using cost sharing policy at time of PCA execution.

22 Aug 1996	CESWL sent Letter Report as decision document to CESWD as PCA basis.
20 Nov 1996	HQUSACE memo to CESWD required a General Reevaluation Report and a preliminary assessment of hazardous waste.
March 1998	Preliminary assessment of potential HTRW sites was completed by CESWL.
6 April 1998	O&M Manual signed and submitted to the city of Little Rock on completed channel and recreation project work.
28 Jan 1999	After project cost estimate was revised, the city provided a letter of intent.
June 1999	CESWL memo to CESWD requested concurrence with preliminary assessment & Project Study Plan approval
13 Jan 2000	HQUSACE guidance thru CESWD to CESWL stated land acquisition for environmental protection was not a budget priority.
1 Feb 2000	Sponsor, by letter, asked ASA(CW) to budget for remaining increment.
13 Apr 2000	ASA(CW) memo agreed with HQUSACE to conduct Limited Reevaluation Report for acquisition & nature appreciation facilities. LRR would be decision document to determine if project should be budgeted for as a separable element new construction start.
9 May 2000	Issue Resolution Conference held with CESWL, CESWD, and HQUSACE.
26 July 2000	HQUSACE guidance provided.
5 Feb 2001	SWL memo to SWD asked for approval of Project Management Plan (PMP).
19 Mar 2001	PMP approved contingent on making revisions based on comments.
13 May 2002	HTRW analysis report completed.
20 June 2003	SEIS Notice of Intent published in Federal Register.
29 Aug 2003	Issue Resolution Conference held with sponsor, USFWS, CESWL, CESWD, HQUSACE, and GEC (AE contractor for the SEIS and engineering appendix).
17 Oct 2003	IRC Memorandum For Record for LRR completion was done.
28 Nov 2005	Public review of draft LRR and SEIS was completed.

TABLE 4			
FOURCHE BAYOU BASIN, ARKANSAS			
FUNDING SINCE AUTHORIZATION			
Years	Funds		Total
	General Investigations	Construction, General	
FY 1985 - 1986	\$333,000	\$ 0	\$333,000
FY 1987 - 2000	0	20,597,000	20,597,000
FY 2001 – 2006	0	485,000	485,000
FY 2007- 2008	<u>0</u>	<u>35,000</u>	<u>35,000</u>
Totals	\$333,000	\$21,117,000	21,450,000