Draft Environmental Assessment

Calhoun County
County Road 244 Realignment and Riverbank Reinforcement Project

Calhoun County, Arkansas

June 2010

FEMA

Federal Emergency Management Agency
Department of Homeland Security
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ADEQ	Arkansas Department of Environmental Quality
AHPP	Arkansas Historic Preservation Program
APE	Area of Potential Effect
BMP	Best Management Practice
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	decibel
DNL	Day-Night Average Sound Level
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
EO	Executive Order
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
H&H	Hydraulics and Hydrology
MPIS	Multiple Project Information Sheet
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
OHWM	Ordinary High Water Mark
OSHA	Occupational Safety and Health Administration
RCRA	Resource Conservation and Recovery Act
STAA	Short Term Activity Authorization
SWA	Solid Waste Act
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Officer
TSCA	Toxic Substances Control Act
USACE	U.S. Army Corps of Engineers
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

SECTION ONE INTRODUCTION

1.1 PROJECT AUTHORITY

On June 16, 2009, President Obama declared a major disaster as a result of damage due to severe thunderstorms, tornadoes, and flooding beginning on April 27, 2009 (FEMA-1845-DR-AR). As a direct result of heavy rainfall inundating Calhoun County, Arkansas, severe flooding on the Ouachita River damaged a portion of County Road 244 (CR 244). Calhoun County has prepared and submitted an application (PA-06-AR-1845-PW-00861) for Federal Emergency Management Agency (FEMA) funding under the Public Assistance program being administered in response to FEMA-1845-DR-AR. Under Section 406(e) of the Stafford Act, FEMA is considering funding the proposed partial realignment of CR 244 and the accompanying riverbank reinforcement of the Ouachita River to reduce the likelihood of future road damage in this area. Hazard Mitigation, Section 406 of the Stafford Act, is a funding source for cost-effective measures that would reduce or eliminate the threat of future similar damage to a facility damaged during a disaster.

In accordance with 44 CFR, Part 10, FEMA has prepared this Draft Environmental Assessment (EA) to meet the requirements of Section 102 of the National Environmental Policy Act of 1969 (NEPA), the President's Council on Environmental Quality regulations to implement NEPA (40 Code of Federal Regulations Parts 1500-1508), and FEMA's regulations implementing NEPA (44 CFR Part 10). FEMA is required to consider potential environmental impacts before funding or approving actions and projects. The purpose of this Draft EA is to analyze the potential environmental impacts of the proposed partial realignment of CR 244 and the riverbank reinforcement along the Ouachita River in Calhoun County, Arkansas. FEMA will use the findings in this Draft EA to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

1.2 PROJECT LOCATION

Within the project area, CR 244 is a gravel road located approximately 0.6 mile south of the Ouachita Bridge (Route 167) along the Ouachita River in Calhoun County, Arkansas (latitude/longitude = 33.33963/-92.52801; Figure 1).

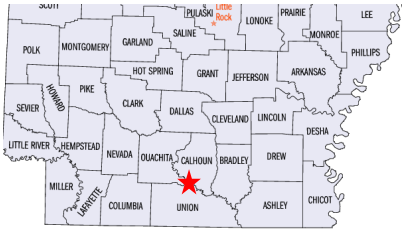
1.3 PROJECT SETTING

The CR 244 project area is located in south-central Arkansas, in Calhoun County, approximately 0.1 mile northeast of the corporate boundaries of the town of Calion in Union County. CR 244 is accessed from the southbound side of Route 167 (Calion Highway), approximately 0.5 mile northeast of the Ouachita River.

This is a large, forested floodplain region with many scattered and isolated oxbows that have been abandoned by the relic stream alignment due to the natural meandering of the Ouachita River. An oxbow is a U-shaped bend in a river formed when a wide meander from the mainstem of a river is cut off. Within the proposed project area, the existing road is directly adjacent (east) of the Ouachita River. A small residential community composed of several homes is located approximately 0.1 mile south of the limits of the project area on CR 244. Further south and east

on CR 244 are several, private oil fields and petroleum storage areas. CR 244 is used by the general public mostly to reach recreational fishing areas along the Ouachita River and the regional lakes and oxbows.

Data Source:
Arkansas State Land Information Board
Digital Orthophoto Quarter Quadrangle (2006)
North American Datum of 1983
Universal Transverse Mercator Projection



Job #: 15708917.00100

Prepared by: AH

Date: April 2010

Figure 1
Project Location Map
Draft Environmental Assessment
Calhoun County Road 244 Proposed Realignment and Riverbank Reinforcement Project
Calhoun County, Arkansas

SECTION TWO PURPOSE AND NEED

The President's Council on Environmental Quality has developed regulations for implementing the National Environmental Policy Act (NEPA). These Federal regulations, set forth in Title 40, Code of Federal Regulations (CFR) Parts 1500-1508, require an evaluation of alternatives and a discussion of the potential environmental impacts of a proposed Federal action, as part of the NEPA process. FEMA regulations for implementing NEPA are set forth in 44 CFR Subpart 10. This Environmental Assessment was prepared in accordance with FEMA's regulations as required under NEPA. As part of this NEPA review, the requirements of other environmental laws and executive orders are addressed.

The project area received over 15 inches of rain (NOAA 2010) in April and May of 2009. The heavy rainfall induced overland flooding, which caused heavy flows along creeks, ditches, and river banks resulting in accelerated erosion within the regional receiving waterbodies. This flooding caused the gravel road, shoulder, and embankment of CR 244 to collapse into the Ouachita River. The loss of the riverbank has precluded the county from returning the gravel road to the pre-disaster footprint. The county has temporarily repaired the road by moving it slightly east of the former alignment, in an effort to maintain access to the small residential area, the general public for recreational fishing, and the private oil fields. However, these repairs are not expected to withstand regular, sustained use and are not a long-term solution to the continued bank erosion of the Ouachita River. A preliminary hydraulics and hydrology (H&H) study conducted by the Arkansas Highway and Transportation Department determined that the existing road is threatened by erosion from the Ouachita River. Road realignment or stream bank stabilization should be considered to prevent future loss of the road due to erosion. A permanent solution is needed to eliminate the continued costs of repairing the road and to maintain access to the small residential community the general public for recreational fishing, and the private oil fields.

This road has a history of failure due to bank erosion along the Ouachita River. CR 244 was previously damaged, near the northern limits of the project area, in another storm during a declared disaster in the spring/summer of 2008 (FEMA-DR-1751-AR). As a result of this damage, the County rip-rapped two discontinuous sections along the west side of the road, on the outside bend of the Ouachita River, in an effort to stabilize the bank and prevent future damages.

The purpose and need for the project is to reduce the likelihood of future road damage in this area and to maintain access for the residential community, the general public for recreational fishing, and the small private oil fields located along County Road 244.

SECTION THREE ALTERNATIVES

This section describes the alternatives that were considered in addressing the purpose and need stated in Section 2 above. Four alternatives were considered as potential solutions to the road failure caused by the riverbank erosion associated with the Ouachita River. Two alternatives are carried forward for further evaluation in this EA: the No Action Alternative (Alternative 1), and the Proposed Action Alternative (Alternative 2), which is the realignment of a portion of CR 244 and riverbank reinforcement. Two alternatives were dismissed from consideration and are discussed below.

3.1 ALTERNATIVE 1: NO ACTION

Under the No Action Alternative, the flood-affected sections of CR 244 would not be realigned or the riverbank reinforced. This road would continue to fail due to recurring erosion along the Ouachita River. Calhoun County would continue to conduct costly repair activities to restore the roadway after erosion events. Even with these efforts, the County would sometimes be forced to temporarily close CR 244, preventing residents, the general public, the small private oil company owners, and emergency vehicles from accessing the area. However, eventually the county road right-of-way would be washed away due to the ongoing bank erosion; this would result in permanent road closure.

3.2 ALTERNATIVE 2: ROAD REALIGNMENT PROJECT AND RIVERBANK REINFORCEMENT (PROPOSED ACTION)

The county has proposed that a 270-foot portion of the road damaged by flooding be set back 30 to 60 feet from the river on a recently acquired 60-foot wide easement. The new, realigned portion of roadway would be 1,200 feet in length and 24 feet wide. The county proposes to use dirt fill to construct the road base and would add gravel to maintain the grade. Approximately 1,000 cubic yards of rip-rap material will be placed along the entire slope on both sides of the road base. Four corrugated metal pipes spaced evenly under the road will be used to manage surface water flows and future flooding events. Figure 2 shows a preliminary site plan.

County Road 244 was previously damaged in another storm during a declared disaster in the spring/summer of 2008 (FEMA-DR-1751-AR). To mitigate this damage, the County placed riprap in two discontinuous sections along the west side of the road, which is the outside bend of the Ouachita River, to stabilize the bank and help prevent future roadway damages. To protect against further bank erosion, the County is proposing additional riprap along the exposed, damaged river bank between the riprap sections installed in 2008.

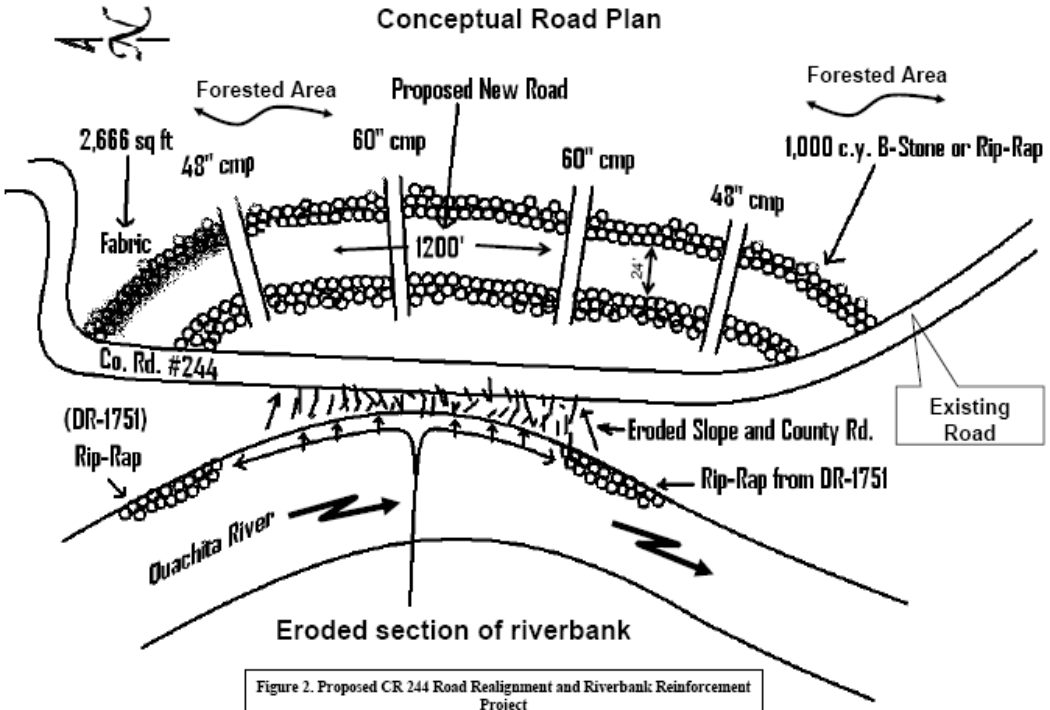


Figure 2. Proposed CR 244 Road Realignment and Riverbank Reinforcement Project	
Conceptual Road Plans - PRELIMINARY	
Prepared by Calhoun County	Date: May 24, 2010

3.3 ALTERNATIVES CONSIDERED AND DISMISSED

Two alternatives were considered but dismissed because they did not meet the county's purpose and need or were considered not feasible.

3.3.1 Alternative 3 – Realignment of CR 244 Beginning from Route 167

This alternative would realign CR 244 beginning at Route 167 and continue east for approximately 4,700 feet until it reconnected with the existing road again. As proposed, this road would impact a large forested area with many scattered wetlands, oxbows, and small intermittent shallow water channels. This alternative was dismissed from further consideration due to extensive wetland and biological resource impacts.

3.3.2 Alternative 4 – Realignment of CR 244 Immediately East of Route 167

This alternative would realign CR 244 beginning immediately east of the bridge. This road alignment would be approximately 4,000 feet long. As proposed, this road would impact a large forested area with many scattered wetlands, oxbows, and small intermittent shallow water channels. This alternative was dismissed from further consideration due to extensive wetland and biological resource impacts.

SECTION FOUR AFFECTED ENVIRONMENT AND IMPACTS

This section describes the potential impacts of the Proposed Action Alternative and the No-Action Alternative. Where potential impacts exist, conditions or mitigation measures to offset these impacts are detailed. A summary table is provided in Section 4.12.

4.1 GEOLOGY AND SOILS

The project area is in alluvium of the Arkansas Valley and Ouachita Mountains region, a subregion of the West Gulf Coastal Plain physiographic region located in the southern part of Arkansas. Alluvium is defined as stream deposits, of varying thickness, in the floodplain. Sediments associated with alluvium often include gravels, sands, silts, and clays (Arkansas Geological Survey 2010).

A review of the United States Geological Survey (USGS 1972 Photorevised) 7.5-minute topographic map for the Calion quadrangle indicates that the approximate elevation of the proposed project site ranges 80 to 85 feet above mean sea level. Local topography is relatively flat with a general slope to the west toward the Ouachita River.

According to the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) online Web Soil Survey, the proposed project site contains soils classified as Ouachita, frequently flooded. Ouachita soil consists of deep, well-drained, moderately slowly permeable soils that formed in loamy alluvium. These level to nearly level soils are on floodplains and natural levees along streams in the Western Coastal Plains. Slopes range from 0 to 3 percent (USDA/NRCS 2009).

The Farmland Protection Policy Act (FPPA) states that Federal agencies must "minimize the extent to which Federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses…" The Ouachita, frequently flooded soil phase is not classified as prime farmland soils and the FPPA does not apply (USDA/NRCS 2009).

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and the soils would continue to erode from the riverbank.

Alternative 2 – Road Realignment and Riverbank Reinforcement

Under the Proposed Action Alternative, construction activities would not be deep enough to impact underlying geologic resources. Approximately 72,000 square feet (1.7 acres) of soils on the proposed project site would be disturbed to develop the realigned roadway. Minimal soil disturbance is anticipated from the rip-rap that is proposed to be placed on the banks of the Ouachita River. The applicant may be required to submit Storm Water Pollution Prevention Program (SWPPP) and National Pollutant Discharge Elimination System (NPDES) permit applications and obtain these permits prior to construction. Implementation of appropriate Best Management Practices (BMPs) would be required at the construction location. BMPs could include the installation of silt fences and the revegetation of disturbed soils to minimize the

potential for erosion. Excavated soil and waste materials will be managed and disposed of in accordance with applicable local, State, and Federal regulations. If contaminated materials are discovered during the construction activities, the work will cease until the appropriate procedures and permits can be implemented.

4.2 WATER RESOURCES

4.2.1 Surface Water

The Clean Water Act (CWA), as amended in 1977, established the basic framework for regulating discharges of pollutants into the waters of the United States. The Arkansas Department of Environmental Quality (ADEQ) Water Division performs all state water quality certifications under Section 401 and Section 402 of the CWA. Activities that disturb water to include entry into water, debris removal from water or wetland, bridge construction/demolition and other activities conducted in any water which might cause a violation of the Arkansas Water Quality Standards must be authorized by the ADEQ Director through a Short Term Activity Authorization (STAA).

The headwaters of Ouachita River begin near Mena, Arkansas, and flow east into Lake Ouachita. The river leaves Lake Ouachita to flow south through Arkansas, past the project area, and merges with the Red River just before flowing into the Mississippi River in Louisiana. In the project area, the Ouachita River is not designated by ADEQ as an Extraordinary Resource Water, which is a state level water quality designation defined as "… a combination of the chemical, physical and biological characteristics of a waterbody and its watershed which is characterized by scenic beauty, aesthetics, scientific values, broad scope recreation potential and intangible social values". The ADEQ has designated the stream within this region as suitable for the propagation of fish/wildlife, primary and secondary contact recreation, and public, industrial, and agricultural water supplies. The Ouachita River (State List ID: AR-2D-8040201-005) in this segment has fish consumption advisories due to mercury contamination (ADEQ 2004). The ADEQ has also identified the Ouachita River in this region as a 303(d) Impaired Waters stream due to the presences of copper and zinc metals (ADEQ 2009). There are no wild and scenic rivers, as designated by the Wild and Scenic Rivers Act, in the project area.

The project area is periodically flooded by the Ouachita River during storm events. The flood waters fill the depressional areas east of CR 244 and flow east toward Little Mud Lake and south along a slough that empties back into the Ouachita River.

Wetlands are addressed in Section 4.2.4, Waters of the U.S. Including Wetlands.

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and sediment from bank erosion would continue to impact surface water quality.

Alternative 2 – Road Realignment and Riverbank Reinforcement

Under the Proposed Action Alternative, minor short-term impacts to the Ouachita River may occur during the road construction period due to soil erosion. To reduce potential impacts to surface water, the applicant would implement appropriate BMPs, such as installing silt fences and re-vegetating bare soils. The applicant may also be required to obtain SWPPP and NPDES permits prior to construction if necessary. The riverbank reinforcement will have minor impacts on the Ouachita River. A portion of the riverbank will be rip-rapped, limiting the establishment of bank vegetation. However, the reinforcement will have the beneficial effect of reducing sediment entering the river from erosion that would otherwise occur along this portion of riverbank.

4.2.2 Groundwater

The water table in the project area has not been defined by the USDA/NRCS. Field indicators suggest that groundwater is at a similar depth as the base flow of the Ouachita River. Depositional soils from the river, which comprise most of the project area, allow for the movement of groundwater because the soils are considered moderately slowly permeable. Groundwater level fluctuation is assumed to be associated with river levels.

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and there would be no impacts to groundwater.

Alternative 2 – Road Realignment and Riverbank Reinforcement

Under the Proposed Action Alternative, construction activities such as clearing and grading would not reach a sufficient depth to impact groundwater because there is little excavation anticipated for the proposed road alignment. In addition, the riverbank reinforcement will only involve the surface placement of rip-rap. Therefore, no impacts to groundwater are anticipated from the proposed project.

4.2.3 Floodplains

Executive Order (EO) 11988 (Floodplain Management) requires Federal agencies to avoid direct or indirect support of development within the 100-year floodplain whenever there is a practicable alternative. FEMA uses Flood Insurance Rate Maps (FIRM) to identify the regulatory 100-year floodplain for the National Flood Insurance Program (NFIP). The FIRM (Community Panel Number 050421 0225) identifies the project area within Zone A, an area within the 100-year floodplain (FEMA, 1997). Appendix A includes a floodplain map and a coordination letter from the Calhoun County Floodplain Administrator.

The construction of this project would take place within the 100-year floodplain. To comply with Executive Order 11988, Floodplain Management, FEMA is required to follow the procedure outlined in 44 CFR Part 9 to assure that alternatives to the proposed action have been considered. This process, also known as the "Eight-Step Process Checklist for Floodplains," has been completed for the proposed action and is included in Appendix B.

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and there would be no impacts to the floodplain.

Alternative 2 – Road Realignment and Riverbank Reinforcement

The proposed project is located within the 100-year floodplain. Construction of this project is not anticipated to have any impacts on the base floodplain elevation, but because the project is located in the floodplain, review under EO 11988 is required. Based on the Eight-Step Process Checklist for Floodplains prepared for this project, there is no practicable alternative to locating the proposed project outside the 100-year floodplain (see Appendix B). The Calhoun County Floodplain Administrator has concluded there will be no impacts to the floodplain (Appendix A).

4.2.4 Waters of the U.S. Including Wetlands

The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material into waters of the U.S., including wetlands, pursuant to Section 404 of the Clean Water Act. Wetlands are identified as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Under Section 404 of the CWA, a permit is required from the USACE for any activities involving the discharge of dredged or fill material into waters of the U.S., including wetlands and tidally influenced waters. Dependent on the scope and type of impacts to waters of the U.S., authorizations may be in one of three primary forms: general permit, a letter of permission, or a standard individual permit. If an applicant has a project either in or near a water body, the applicant is required to fill out and submit the Multiple Project Information Sheet (MPIS) to the USACE and ADEQ to establish which permit(s), if any, will be required.

EO 11990, Protection of Wetlands, directs federal agencies to take actions to minimize the destruction, loss, or degradation of wetlands.

The USACE also regulates Navigable Waters, as defined by Section 10 of the Rivers and Harbors Act of 1899. Section 10 requires that regulated activities conducted below the Ordinary High Water Mark (OHWM) elevation of navigable waters of the United States be approved or permitted by the USACE. The OHWM is defined as a line on the riverbank established by the fluctuations of water and can often be indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, and the presence of litter and debris (USACE 2005). Navigable waters of the United States are those waters of the U.S. that are subject to the ebb and flow of the tide shoreward to the mean high water mark and/or are presently used, or have been used in the past or may be susceptible to use to transport interstate or foreign commerce. Regulated activities include the placement/removal of structures, work involving dredging, disposal of dredged material, filling, excavation, or any other disturbance of soils/sediments or modification of a navigable waterway.

Waters of the U.S. and Navigable Waters

The Ouachita River is considered waters of the U.S., as well as a Section 10 Navigable Water by the USACE.

Wetlands

The U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) map of the area was reviewed to identify the potential for wetlands and/or other waters of the U.S. to occur within the project area. The NWI map indicated there is no data for the region (USFWS 2010). A wetland investigation was performed by the NRCS on April 13, 2010, to identify wetland resources located within the proposed realignment right-of-way. This wetland investigation was performed in accordance with the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (USACE 2008) using the three parameter approach including the presence of hydrophytic vegetation, hydric soils, and hydrologic indicators. Based on the results of this investigation, no wetlands exist within the proposed roadway corridor. However, because the site is adjacent to potential regulated wetlands located to the east, a Wetland No Findings report was submitted to the USACE, Vicksburg District for concurrence.

Alternative 1 – No Action Alternative

Under the No Action Alternative, there would be no construction and no impacts to waters of the U.S. or navigable waters and no USACE Section 404 or Section 10 permit would be required.

Alternative 2 – Road Realignment and Riverbank Reinforcement

Based on the Wetland No Findings report, the project site does not meet the USACE criteria for a regulated wetland. Therefore Section 404 would not apply. However, because the project is adjacent to potential wetlands located to the east, barrier fencing will be required to keep all roadway construction within the project's right-of-way.

The riverbank reinforcement will have minor impacts on the Ouachita River. A portion of the riverbank will be rip-rapped, limiting the ability of bank vegetation to become established. However, the reinforcement will have the beneficial effect of reducing sediment from erosion that could occur along this portion of riverbank. Since work is proposed within the OHWM of the Ouachita River, Section 10 of the River and Harbors Act may apply and coordination with the USACE Vicksburg District River Operations Branch, Navigation Unit will be required. Construction activities within the limits of waters of the U.S. may require a Section 404 permit as well. The applicant will be required to fill out and submit the MPIS to the USACE and ADEQ to establish which permit(s), if any, will be required.

4.3 TRANSPORTATION

The proposed project site is located on CR 244 in a rural area of Calhoun County, Arkansas. County Road 244 is only accessible from State Highway 167, which is also known as the Calion Highway. The road entrance is located approximately 0.5 mile northeast of the Ouachita Bridge.

CR 244 is approximately 3.8 miles long and parallels the Ouachita River for approximately 1.4 miles.

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and portions of CR 244 would continue to be temporarily closed to public and emergency vehicle access due to road failure from riverbank erosion. However, eventually the county road right-of-way would be washed away due to the ongoing bank erosion; this would result in permanent road closure.

Alternative 2 – Road Realignment and Riverbank Reinforcement

Under the Proposed Action Alternative, there would be a minor temporary increase in construction traffic on CR 244 in the immediate vicinity of the proposed project site that could potentially result in slower traffic flow during construction. There would be no road closures because the construction would occur within the proposed realignment right-of-way, leaving the existing road intact until after construction is completed.

Impacts to transportation in the project area would be temporary and minor during the construction phase of the project. Permanent impacts to transportation would be beneficial since the project would remove limitations on public and emergency vehicle access caused by road failure from riverbank erosion.

4.4 ENVIRONMENTAL JUSTICE

EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) mandates that Federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.

Although CR 244 is located in a remote part of Calhoun County, Arkansas, it is geographically close to the City of Calion in Union County, Arkansas. According to the US Census Bureau, the City of Calion has 516 residents. In 1999, the median household income was $25,268, with 25.6 percent of people living below the poverty level. In 2008, the median income for households in Calhoun County was $34,908, with 16.5 percent of people living below the poverty level. The median household income for the State of Arkansas was $38,820, with 17.3 percent of people living below the poverty level (USCB 2010).

Minorities represented 34.3 percent, 24.7 percent, and 19.2 percent, respectively, of the City of Calion, Calhoun County, and the State of Arkansas populations. The following table shows the specific racial composition of the City of Calion, Calhoun County, and the State of Arkansas.

Ethnicity	City of Calion	Calhoun County	State of Arkansas
White	65.7%	75.3%	80.8%
Black or African American	33.3%	23.3%	15.8%
American Indian or Native Alaskan	0.6%	0.3%	0.9%
Asian	—	< 0.1%	1.1%
Native Hawaiian or Other Pacific Islander	—	0.0%	0.1%
Source: USCB 2000 Note: — Represents zero or rounds to zero			

Alternative 1 – No Action Alternative

Under the No Action Alternative, community residents, general public, and small private oil businesses could be denied access due to temporary road failure, which in turn could result in undue economic hardship for these people. However, eventually the county road right-of-way would be washed away because ongoing bank erosion would eventually result in permanent road closure. One of the private oil companies in the study area almost claimed bankruptcy because they were unable to transport oil due to the road failure associated with the flooding of the Ouachita River (Nutt, pers. comm.). There would be no disproportionately high or adverse impact on minority or low-income portions of the population – all populations would continue to be affected.

Alternative 2 – Road Realignment and Riverbank Reinforcement

The Proposed Action Alternative would provide a road that is not susceptible to failure due to erosion and that would be accessible and beneficial to all members of the community. There would be no disproportionately high or adverse impact on minority or low-income portions of the population – all populations would benefit from this project.

4.5 AIR QUALITY

The Clean Air Act (CAA) requires that States adopt ambient air quality standards. The standards have been established to protect the public from potentially harmful amounts of pollutants. Under the CAA, the U.S. Environmental Protection Agency (EPA) establishes primary and secondary air quality standards. Primary air quality standards protect the public health, including the health of "sensitive populations, such as people with asthma, children, and older adults." Secondary air quality standards protect public welfare by promoting ecosystems health, and preventing decreased visibility and damage to crops and buildings. The EPA has set national

ambient air quality standards (NAAQS) for the following six criteria pollutants: ozone (O_3), particulate matter ($PM_{2.5}$, PM_{10}), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), and lead (Pb). According to the EPA greenbook for non-attainment, Calhoun County and adjacent counties are in attainment, meaning all criteria air pollutants do not exceed the NAAQS (EPA 2010a).

Alternative 1 – No Action Alternative

The No Action alternative would have no effect on air quality because no construction would occur.

Alternative 2 – Road Realignment and Riverbank Reinforcement

The proposed project is not expected to contribute emissions that would exceed the established NAAQS. Any effects to air quality from the operation of diesel engines or other construction equipment are expected to be localized and of short-duration. Construction contractors would be required to implement measures such as watering down construction areas when necessary; reduce fuel-burning equipment running times; and properly maintain engines during construction of the project.

4.6 NOISE

Noise is generally defined as unwanted sound. Sound is most commonly measured in decibels (dB) on the A-weighted scale, which is the scale most similar to the range of sounds that the human ear can hear. The Day-Night Average Sound Level (DNL) is an average measure of sound. The DNL descriptor is accepted by Federal agencies as a standard for estimating sound impacts and establishing guidelines for compatible land uses. EPA guidelines, and those of many other Federal agencies, state that outdoor sound levels in excess of 55 dB DNL are “normally unacceptable” for sensitive receptors (e.g., noise-sensitive land uses) such as residences, schools, or hospitals.

The project site is in a rural area of the county and is not located near any sensitive receptors. The generation of noise during construction would be temporary and minor in nature.

Alternative 1 – No Action Alternative

The No Action alternative would not result in noise impacts because no construction would occur.

Alternative 2 – Road Realignment and Riverbank Reinforcement

Sensitive receptors would not be affected as there are none located in proximity to the project area. Noise generated by the operation of equipment during the construction phase of the proposed project is expected to be temporary and minor. Construction would take place during normal business hours and equipment would meet all local, State, and Federal noise regulations.

4.7 BIOLOGICAL RESOURCES

The proposed project area is a bottomland hardwood forest located in the floodplain of the adjacent Ouachita River. County Road 244, a maintained gravel road, transects the area to provide access to several residential homes, the general public for recreational fishing, and the small private oil fields.

4.7.1 Terrestrial Habitat

The regional vegetation is composed mostly of mature hardwood floodplain forest trees and understory. The area is dominated by overcup oak (*Quercus lyrata*), Nuttall's Oak (*Quercus nuttalli*), baldcypress (*Taxodium distichum*), blackgum (*Nyssa sylvatica*), Southern red oak (*Quercus falcata*), red maple (*Acer rubrum*), and river birch (*Betula nigra*); with an understory of roundleaf greenbrier (*Smilax rotundifolia*), poison ivy (*Toxicodendron radicans*) switch cane (*Arundinaria gigantean*), and swamp privet (*Forestiera acuminata*). Herbaceous vegetation was not observed in the project area because the recent flooding events have deposited enough soil material to cover low growing vegetation.

The common animals in this region include beaver (*Castor canadensis*), opossum (*Ondatra zibethica*), white-tailed deer (*Odocoileus virginianus*), mink (*Neovison vison*), raccoon (*Procyon lotor*), and striped skunk (Mephitis mephitis). Resident and migratory bird species that are commonly found in the area include turkey (*Meleagris gallopavo*), bobwhite (*Colinus virginianus*), mourning dove (*Zenaidura macroura*), red-eyed vireo (*Vireo olivaceus*), and cardinal (*Cardinalis cardinalis*). Common reptiles and amphibians include box turtle (*Terrapene carolina*), garter snake (*Thamnophis sirtalis*), cottonmouth (*Agkistrodon piscivorus*) and American alligator (*Alligator mississippiensis*).

Alternative 1 - No Action Alternative

Under the No Action Alternative, there would be no impacts to terrestrial habitat because no construction would occur.

Alternative 2 - Road Realignment and Riverbank Reinforcement

Under the Proposed Action Alternative approximately 1.7 acres of remaining terrestrial habitat (not yet cleared by the county) would be impacted by the proposed road realignment. The county had already initiated the clearing of this area in the winter of 2009 to prepare for the anticipated road construction. Although the terrestrial habitat within the new footprint of the road would be lost, the remaining shoulder areas would re-vegetate. The pre-existing section of road abandoned by the realignment would also be re-vegetated by the county to help stabilize this area and help slow future riverbank erosion.

A portion of the riverbank will be rip-rapped, limiting the ability of bank vegetation to become established. However, the reinforcement will have the beneficial effect of reducing sediment from erosion that could occur along this portion of riverbank.

4.7.2 Aquatic Habitat

Within the project area, the Ouachita River is a deep, low gradient, meandering, perennial stream. The dominant fish species that have been recorded in this reach of stream are the gizzard shad (*Dorosoma cepedianum*), blacktail shiner (*Cyprinella venustus*), brook silverside (*Labidesthes sicculus*), bluegill (*Lepomis macrochirus*), largemouth bass (*Micropterus salmoides*), spotted gar (Lepisosteus oculatus), and threadfin shad (*Dorosoma petenense*) (AFGC 1993). These species are typically associated with streams of intermediate water quality.

Alternative 1 - No Action Alternative

Under the No Action Alternative, there would be no impacts to aquatic habitat. Sediment from erosion that could occur along this portion of riverbank would continue to enter the river.

Alternative 2 - Road Realignment and Riverbank Reinforcement

Under the Proposed Action Alternative, minor short-term impacts to the nearby Ouachita River may occur during the road construction due to soil erosion. To reduce potential impacts to surface water, the applicant would implement appropriate BMPs, such as installing silt fences and re-vegetating bare soils for the protection of the river. The applicant would also be required to obtain SWPPP and NPDES permits prior to construction if necessary. The riverbank reinforcement will have a minor impact on the Ouachita River as well. However, all work will only occur on the riverbank, between the toe of slope to the top of bank. It is anticipated that the reinforcement will have the beneficial effect of reducing sediment from erosion that could occur along this portion of riverbank.

4.7.3 Migratory Bird Treaty Act

The project area is located within the West Gulf Coastal Plain of the Mississippi Flyway and may provide resting, feeding, and breeding grounds for migratory birds. However, the immediate study area does not contain suitable habitat as it is a disturbed area characterized by existing roadway and the cleared right-of-way of the proposed alignment. Higher quality habitat exists in and around the oxbows that are randomly scattered in the surrounding forest.

Alternative 1 - No Action Alternative

Under the No Action Alternative, there would be no impacts to migratory birds.

Alternative 2 - Road Realignment and Riverbank Reinforcement

Under the Proposed Action Alternative, no impacts to migratory bird species are anticipated. The recently cleared sections of the proposed road alignment occurred during the winter months outside the nesting season for most of the region's migratory bird species.

4.7.4 Threatened/Endangered Species and Critical Habitat

The Endangered Species Act (ESA) of 1973 provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. Section 7

of the ESA requires federal agencies, in consultation with the USFWS and/or the National Oceanic and Atmospheric Administration Fisheries Service (NOAA), to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The ESA also prohibits any action that causes a "taking" of any listed species of endangered fish or wildlife.

The state of Arkansas relies upon federal legislation to protect animal and plant resources. The Arkansas Natural Heritage Commission identified 5 invertebrates, 8 vertebrates, 37 plants, 5 natural communities, and 1 colonial nesting site for water birds as species of concern in Calhoun County.

Four species are listed as endangered by the USFWS in Calhoun County: the red-cockaded woodpecker *(Picoides borealis),* the Ouachita rock-pocketbook *(Arkansia wheeleri),* the Pink mucket pearlymussel *(Lampsilis abrupt)*, and the winged mapleleaf *(Quadrula fragosa)*. The red-cockaded woodpecker inhabits mature or “old growth” pine forests. There are no pine forests in the project area. The Ouachita rock-pocketbook occupies stable substrates (river bottoms) containing gravel, sand and other material and is found primarily in the Little River drainage in Sevier and Little River counties. The Pink mucket pearlymussel primarily occupies shallow riffles and shoals in the Current and Spring Rivers, and the winged mapleleaf is found in riffles with clean gravel, sand, or rubble bottoms with clear high quality water in the Ouachita and Saline Rivers. All three of these mussel species occur in Calhoun County and in the Ouachita River.

Alternative 1 - No Action Alternative

Under the No Action Alternative, there would be no impacts to federally protected species because no construction would occur.

Alternative 2 - Road Realignment and Riverbank Reinforcement

Under the Proposed Action Alternative, no impacts to federally protected species or their habitats are anticipated. The vegetation cleared by the county in the winter of 2009 did not include any suitable habitat (nesting or foraging) for the red-cockaded woodpecker. The rip-rap would be restricted to areas along the bank and would not affect any of the three listed mussel species. The riverbank reinforcement may have the beneficial effect of reducing sediment from erosion that could occur along this portion of riverbank. In an E-mail dated April 5, 2010, the U.S. Fish and Wildlife Service provided concurrence with FEMA’s determination of “may affect, not likely to adversely affect” for federally listed species as a result of the proposed project (Appendix A).

4.8 CULTURAL RESOURCES

Section 106 of the National Historic Preservation Act of 1966, as amended, requires federal agencies to take into account the effect that an undertaking would have on historic properties. Historic properties are those included in or eligible for inclusion in the National Register of Historic Places (NRHP) and may include archeological sites, buildings, structures, sites, objects, and districts. In accordance with the Advisory Council on Historic Preservation regulations

pertaining to the protection of historic properties (36 CFR 800.4), federal agencies are required to identify and evaluate historic resources for NRHP eligibility and assess the effects the undertaking would have on historic properties.

The County recently acquired a 60-foot-wide by 1,200-foot-long easement of land from the timber company who owns the adjacent property. This proposed easement is the Area of Potential Effect (APE) for the purposes of this cultural resource assessment. A search of the Arkansas Automated Management of Archeological Site Data in Arkansas on September 2, 2009, for the APE listed two historic properties within less than 0.5 mile of the proposed APE. Site number 3UN0200 is located approximately 0.1 mile to the southwest of the project area. This site was recorded in November 1982 and it consists of a historic structural feature, a turn-table-type railroad bridge. The bridge condition has deteriorated since its original identification and only concrete remains are visible on the river bank opposite the proposed project area. At the time of recordation, this site was eligible for listing on the NRHP. FEMA has not evaluated the bridge's eligibility because the site will not be affected by the proposed project. Site number 3CA0265 is located approximately 0.2 mile to the east of the project area. This site was recorded in October 1982 and it consists of a pre-historic midden that contained 2 human burials, numerous lithics, ceramics and faunal remains. At the time of recordation, this site was eligible for listing on the NRHP. FEMA has not evaluated the pre-historic midden eligibility because the site will not be affected by the proposed project.

Alternative 1 - No Action Alternative

The No Action alternative would have no effect on cultural resources in the area because no construction would occur.

Alternative 2 - Road Realignment and Riverbank Reinforcement

The Arkansas Historic Preservation Program (AHPP) was contacted by letter on September 2, 2009, regarding the potential for archeological or historic resources to be impacted by this proposed project.

In a response dated September 3, 2009, AHPP concurred with FEMA's determination that no historic properties would be affected by the proposed project (see letter in Appendix A). Should any historic or archeological materials be discovered during construction, all construction work on the site would be halted immediately and Calhoun County would notify Arkansas Department of Emergency Management and FEMA for further guidance. FEMA will consult with the AHPP on any discoveries.

4.9 HAZARDOUS MATERIALS

Hazardous substances are defined as any solid, liquid, contained gaseous or semisolid waste, or any combination of wastes that pose a substantial present or potential hazard to human health and the environment. Hazardous substances are primarily generated by industry, hospitals, research facilities, and the government. Improper management and disposal of hazardous substances can lead to pollution of groundwater or other drinking water supplies, and the contamination of surface water and soil.

Hazardous materials and waste are regulated in Arkansas by a combination of federal and state laws. The primary federal regulations for the management and disposal of hazardous substances are the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), the Solid Waste Act (SWA), and the Toxic Substances Control Act (TSCA).

Visual observations of the project area did not reveal obvious existing or potential hazardous materials, substances, or conditions. No drums or other sources of potential hazardous materials were observed in the project area.

The following is a list of federal and state databases reviewed for this project: EPA National Priorities List, EPA Comprehensive Environmental Response, Compensation and Liability Information System List, and the Arkansas Department of Environmental Quality, Hazardous Waste Division databases. Based on this search, the proposed project site is not located within any land-use types with potential for generating hazardous substances that would pose a contamination threat to the project site. No hazardous substances have been identified in the project area and the proposed work itself is not expected to generate any hazardous substances. Therefore, no further background research is recommended.

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and there would be no impacts from hazardous materials or waste.

Alternative 2 – Road Realignment Project and Riverbank Reinforcement

Under the Proposed Action Alternative, no hazardous materials or waste impacts are anticipated. Any hazardous materials discovered, generated, or used during construction would be handled and disposed of in accordance with applicable local, State, and Federal regulations.

4.10 SAFETY

Safety and security issues considered in this EA include the health and safety of area residents, the public-at-large, and the protection of personnel involved in the activities related to the proposed construction of the project.

Construction activities could present safety risks to those performing the activities as well as the public-at-large. To minimize risks to safety and human health, all construction activities would be performed using qualified personnel trained in the proper use of the appropriate equipment, including all appropriate safety precautions. Additionally, all activities would be conducted in a safe manner in accordance with the standards specified in the Occupational Safety and Health Administration (OSHA) regulations. The appropriate signage and barriers should be in place prior to construction activities to alert pedestrians and motorists of project activities.

Alternative 1 – No Action Alternative

The No Action Alternative could have a negative effect on the general safety of the residents within the proposed project area. The temporary lack of adequate road access after storm events

could isolate the small residential community and the small private oil fields. The current road alignment has a history of failure. Access for emergency vehicles after road failure due to erosion would continue to be an on-going long-term safety concern. However, eventually the county road right-of-way would be washed away due to the ongoing bank erosion; this would result in permanent road closure.

Alternative 2 – Road Realignment and Riverbank Reinforcement

Under the Proposed Action Alternative, short-term safety risks to residents, general public, oil field business owners, and construction personnel would be present during construction. Protective measures to be implemented during project construction would minimize these risks. All construction activities would be performed using qualified personnel and in accordance with the standards specified in OSHA regulations; appropriate signage and barriers should be in place prior to construction activities to alert pedestrians and motorists of project activities. Safety would be improved in the long-term under this alternative by removing road failure-related limitations on emergency vehicle access. There would be no disproportionate health and safety risks to children.

4.11 SOCIOECONOMIC RESOURCES

The proposed site is located 0.1 mile northeast of the corporate boundaries of the City of Calion in Union County. The proposed project site is located within census tract 9801 of Calhoun County. The 2000 Census reported the total population of the City of Calion to be 516, with 40.5% of citizens over the age of 16 participating in the work force. Leading employment sectors are production, transportation, and material moving occupations (34.1%), management, professional, and related occupations (22.2%), service occupations (15%), and sales and office occupations (15%). Leading industries include manufacturing (31.1%), construction (12.6), wholesale trade (10.2%), and retail trade (8.4%).

Alternative 1 – No Action Alternative

Under the No Action Alternative, no road improvements would occur. Consequently, sections CR 244 would be left unprotected from possible failure due to riverbank erosion during the next storm event. This could result in a monetary burden to the residences and the oil field business owners.

Alternative 2 – Road Realignment and Riverbank Reinforcement

Under the Proposed Action Alternative, all residents, general public, and businesses in the area are expected to benefit from the road realignment and riverbank reinforcement. Although no permanent employment positions would be created or lost; temporary jobs may be created during construction of the new road. Therefore, no adverse socioeconomic impacts are anticipated.

4.12 SUMMARY

The following table summarizes the potential impacts of the Proposed Action Alternative and conditions or mitigation measures to offset those impacts.

Affected Environment	Impacts	Mitigation
Geology and Soils	No impacts to underlying geology are anticipated. Soils on the project site will be disturbed on the surface by grading during construction.	A SWPPP and a NPDES permit must be obtained prior to construction. Implementation of appropriate BMPs would be required at the construction location, including the installation of silt fences and the revegetation of soils. Graded soil and waste materials will be managed in accordance with applicable local, State, and Federal regulations. If contaminated materials are discovered during the construction activities, the work will cease until the appropriate procedures and permits can be implemented.
Surface Water	Short-term impacts to surface water are anticipated. The river reinforcement will have the beneficial effect of reducing sediment entering the river from erosion	Appropriate BMPs, such as installing silt fences and revegetating bare soils, would minimize runoff; a SWPPP and a NPDES permit must be obtained prior to construction if necessary.
Groundwater	No impacts to groundwater are anticipated.	None
Floodplains	Although the project is in a floodplain, no impacts will occur.	The Eight-Step Process Checklist for Floodplains has been prepared for this project Appendix B). The Floodplain Administrator has determined that the road will not impact the floodplain.
Waters of the U.S. including Wetlands	No impacts to wetlands are anticipated. The river reinforcement will have the beneficial effect of reducing sediment entering the river from erosion	If required by the USACE, a Section 404 and Section 10 permit must be obtained prior to construction. Barrier fencing will be required to keep all roadway construction out of adjacent wetland areas.

Affected Environment	Impacts	Mitigation
Transportation	Short-term, minor temporary increase in the volume of construction traffic on roads. Positive impacts to transportation are anticipated since the project would remove limitations on site access.	Construction vehicles and equipment would be stored on-site during project construction and appropriate signage would be posted on affected roadways.
Environmental Justice	All populations would benefit from the Proposed Action.	None
Air Quality	Short-term impacts to air quality would occur during the construction period.	Construction contractors would be required to water down construction areas when necessary; fuel-burning equipment running times would be kept to a minimum; engines would be properly maintained.
Noise	Short-term impacts to noise levels would occur at the proposed project site during the construction period.	Construction would take place during normal business hours and equipment would meet all local, State, and Federal noise regulations.
Biological Resources/ Threatened and Endangered Species	Permanent minor impacts to the remaining vegetation. No impacts to other biological resources or any federally protected species or their habitat are anticipated. The river reinforcement will have the beneficial effect of reducing sediment entering the river from erosion	Appropriate BMPs, such as installing silt fences and revegetating bare soils, would minimize runoff; a SWPPP and a NPDES permit must be obtained prior to construction if necessary.

Affected Environment	Impacts	Mitigation
Cultural Resources	No impacts to cultural resource are anticipated.	In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project shall be halted and the applicant shall stop all work immediately in the vicinity of the discovery and take reasonable measures to avoid or minimize harm to the finds. All archeological findings will be secured and access to the sensitive area restricted. In the event of human burials, Act 753 of the 1991 of the Arkansas Burial Law will be followed and the applicant will inform Arkansas Department of Emergency Management and FEMA immediately and FEMA will consult with the AHPP or THPO and Tribes and work in sensitive areas cannot resume until consultation is completed and appropriate measures have been taken to ensure that the project is in compliance with the National Historic Preservation Act.
Hazardous Materials	No hazardous materials or waste impacts are anticipated.	Any hazardous materials discovered, generated, or used during construction would be disposed of and handled in accordance with applicable local, State, and Federal regulations.
Safety	There is potential for temporary minor impacts to safety of residences, oil field owners, and construction personnel during construction activities. Safety would be improved in the long-term by removing road failure-related limitations on emergency vehicle access.	All construction activities would be performed using qualified personnel and in accordance with the standards specified in OSHA regulations; appropriate signage and barriers should be in place prior to construction activities to alert pedestrians and motorists of project activities.

Affected Environment	Impacts	Mitigation
Socioeconomic Resources	No adverse socioeconomic impacts are anticipated. All residents and businesses in the area are expected to benefit from the road realignment and riverbank reinforcement	None

SECTION FIVE CUMULATIVE IMPACTS

According to Council on Environmental Quality regulations, cumulative impacts represent the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7)." In accordance with NEPA and to the extent reasonable and practical, this EA considered the combined effect of the Proposed Action Alternative and other actions occurring or proposed in the vicinity of the proposed project site.

The proposed project is a road realignment and riverbank reinforcement directly adjacent to the existing road. The proposed project will bisect a narrow strip of mature hardwood floodplain forest. There are no other large-scale project occurring or proposed by the Calhoun County in or near the project area (Nutt, pers. comm.). Therefore, the proposed project is not anticipated to result in cumulative impacts on the human or natural environment.

SECTION SIX PUBLIC INVOLVEMENT

FEMA is the lead Federal agency for conducting the NEPA compliance process for the County Road 244 Realignment and Riverbank Reinforcement Project in Calhoun County, Arkansas. It is the goal of the lead agency to expedite the preparation and review of NEPA documents and to be responsive to the needs of the community and the purpose and need of the proposed action while meeting the intent of NEPA and complying with all NEPA provisions.

The public was notified of the availability of the draft EA through the publication of a public notice on June 18, 2010, in the *Arkansas Democrat Gazette and the South Arkansas Sun*. The EA document was also made available for public review at the Calhoun County Courthouse located at 309 West Main Street, Hampton, AR 71744 and on the FEMA's website (*http://www.fema.gov/plan/ehp/envdocuments/ea-region6.shtm*) beginning on June 18, 2010. FEMA conducted a 30-day public comment period commencing on the initial publication date of the public notice and ending on July 18, 2010.

SECTION SEVEN AGENCY COORDINATION

As part of the development of the Environmental Assessment, Federal and State resource protection agencies were contacted. Responses received to date are included in Appendix A.

- Arkansas Historic Preservation Program Little Rock, AR
- U.S. Fish and Wildlife Service, Conway, AR
- Arkansas Department of Environmental Quality, North Little Rock, AR
- Arkansas Fish and Game Commission, Little Rock, AR
- Natural Resources Conservation Service, Warren Field Service Center, Warren, AR
- U.S. Army Corps of Engineers, Vicksburg District, Vicksburg, MS

In accordance with applicable local, State, and Federal regulations, the applicant would be responsible for acquiring any necessary permits prior to commencing construction at the proposed project site.

SECTION EIGHT CONCLUSIONS

No adverse impacts to geology, groundwater, floodplains, waters of the U.S., including wetlands, migratory birds, threatened and endangered species, cultural resources, hazardous materials, or socioeconomic resources are anticipated with the Proposed Action Alternative. Positive impacts to surface water, waters of the U.S., transportation, environmental justice, biological resources, safety, and socioeconomic resources are expected. Permanent minor impacts are anticipated to soil and biological resources. During the construction period, short-term impacts to downstream surface water, transportation, air quality, noise and safety are anticipated. All short-term impacts require conditions to minimize and mitigate impacts to the proposed project site and surrounding areas.

The preliminary findings of the Environmental Assessment conclude that that there are no practical, prudent or economical alternatives to avoiding impacts to the floodplain within the right-of-way of the proposed CR 244 realignment. Therefore, it is anticipated that the proposed action will meet the requirements of a Finding of No Significant Impact (FONSI) under NEPA and the preparation of an Environmental Impact Statement (EIS) will not be required.

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Personal communication

Nutt, Floyd. Judge, Calhoun County. Personal communication with Alan Hermely of URS on March 12, 2010.

SECTION TEN LIST OF PREPARERS

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Appendix A
Agency Coordination

Tony Rinehart
Floodplain Administrator
Calhoun County, Arkansas
P.O. Box 566 – Hampton, AR. 71744
(O) 870-798-4817 (C) 870-510-5024
Fax: 870-798-2210

Date: April 21st, 2010

To: Mr. Alan Hermely

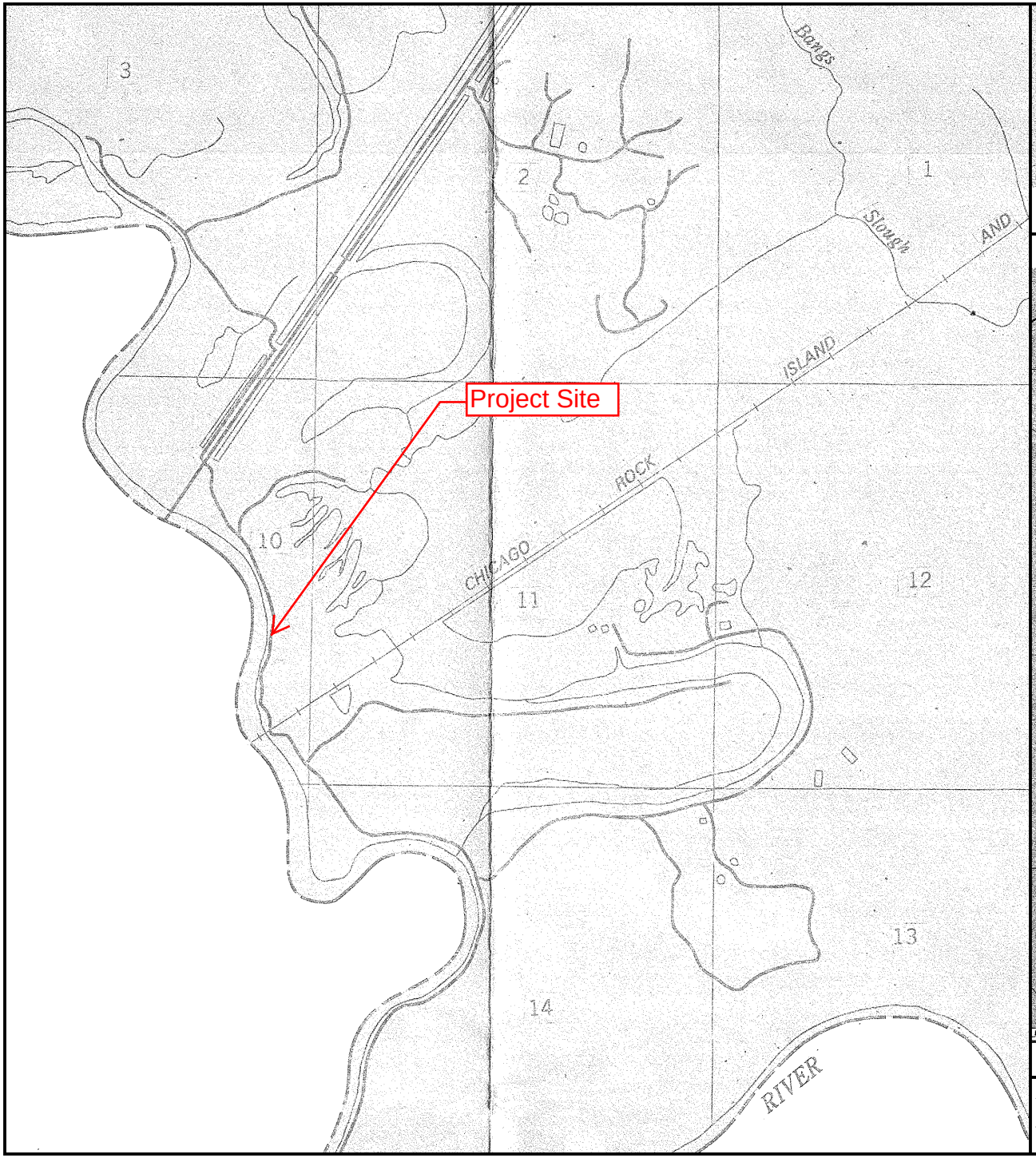
From: Tony Rinehart

RE: Calhoun County Road 244

Dear Alan, at the request of Calhoun County Judge Floyd W. Nutt, I have assessed Calhoun County Road 244 at the proposed project site. It is my determination that the scope of work proposed for this project will have no impact on the floodplain. Please feel free to contact me with any concerns that may arise. My accreditation expires June 30, 2010.

Respectfully Submitted,

Tony Rinehart
Calhoun County
Floodplain Administrator



insurance agent or call the National Flood Insurance Program

APPROXIMATE SCALE IN FEET

2000 0 2

23
26
35

UPPER LEFT

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

CALHOUN COUNTY, ARKANSAS
(UNINCORPORATED AREAS)

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
050421 0225 A

EFFECTIVE DATE:
DECEMBER 19, 1997

Federal Emergency Management Agency

Hermely, Alan (CTR)

From: Margaret_Harney@fws.gov
Sent: Monday, April 05, 2010 3:19 PM
To: Hermely, Alan (CTR)
Subject: Re: FW: Status of Request for Consultation for the Proposed Partial Realignment of CR 244 in Calhoun County, Arkansas, FEMA 1845-AR

Allan--

We checked the location of the project and we do not have endangered species concerns in that portion of the river.
Marge

U.S. Department of Homeland Security
Federal Emergency Management Agency
Little Rock Joint Field Office
FEMA-1845-DR-AR
2637 Lakewood Village Dr.
North Little Rock, AR 72116
Office: (501) 918-7600
Fax: (501) 918-3180

March 19, 2010

Margaret Harney, Team Leader
United States Fish and Wildlife Service
110 South Amity Road, Suite 300
Conway, Arkansas 72032

RE: Request for Consultation for the Proposed Partial Realignment of CR 244 in Calhoun County, Arkansas, FEMA-1845-AR

Undertaking: Partial realignment of CR 244 and the associated placement of bank armament along the Ouachita River
Latitude: 33.33963, Longitude: -92.52801

Applicant: Calhoun County

Dear Ms. Harney:

As part of the response and recovery efforts associated with the flood event that occurred in Calhoun County, Arkansas in April and May of 2009 (designed as FEMA-1845-DR-AR), it is proposed that federal funding through FEMA's Public Assistance Program be provided for the realignment of portions of County Road 244, Calhoun County, Arkansas. The project site is within a mature floodplain hardwood forest with several nearby oxbows associated with the Ouachita River. A potential regulatory wetland occurs within the right-of-way of the proposed road relocation, east of the existing road. It is pending an US Army Corps of Engineering Jurisdictional Determination. A project location map is enclosed for your reference.

Heavy rains induced overland flooding; this flooding caused heavy flows along creeks, ditches, and river banks resulting in accelerated erosion within the water channels. This flooding caused the gravel road, shoulder, and embankment of CR 244 to collapse into the Ouachita River. The loss of the river bank has precluded the county from returning the gravel road to the pre-disaster footprint.

A hydraulics and hydrology (H&H) study conducted by the US Army Corps of Engineers (USACE) determined that the road needs to be relocated further away from the Ouachita River to prevent further loss of the road due to erosion. Consequently, the county has

proposed that the 270 foot portion of the road damaged by flooding to be set back 30 to 60 feet from the river on to a recently acquired 60-foot wide easement established on the land that was previously owned the lumber company. The vegetation in the new easement has been cleared by the county with non-mechanic methods. The new, realigned-road would be 1,200 feet in length and 24 feet wide. The county proposes to use dirt fill to construct the road base and add gravel to maintain the grade. Approximately 1,000 cubic yards of rip-rap material will be placed along the entire slope on both sides of the road base. Four corrugated metal pipes spaced evenly under the road will be used to manage surface water flows associated with future flooding events. No excavation is proposed for this project. A schematic map provided by the county is enclosed for your reference.

County Road 244 was previously damaged in another storm during a declared disaster in the spring/summer of 2008 (FEMA-DR-1751-AR). As a result of this damage, the county rip-rapped two discontinuous sections along the west side of the road, on the outside bend of the Ouachita River, in an effort to stabilize the bank and prevent future damages. For the purposes of attenuating further bank erosion, the county is proposing additional rip-rap along the exposed river bank between the rip-rap installed in 2008.

To address potential water quality degradation that could occur during construction, appropriate best management practices (BMP) will be required and will be part of the project analyzed in the Environmental Assessment that is being prepared for this project.

Four endangered species occur in Calhoun County. These listed species include three mussels; the Ouachita rock-pocketbook (*Arkansia wheeleri*), the Pink mucket (*Lampsilis abrupta*), the Winged mapleleaf (*Quadrula fragosa*); and one bird, the Red-cockaded Woodpecker (*Picoides borealis*). The Ouachita rock-pocketbook occupies stable substrates containing gravel, sand, and other material in the Little River drainage in Sevier and Little River counties; the Pink mucket is found in shallow riffles and shoals in the Current and Spring Rivers; the Winged mapleleaf is found in riffles with clean gravel, sand, or rubble bottoms and in clear, high quality water in the Ouachita and Saline Rivers; and the Red-cockaded Woodpecker inhabits mature pine forests.

The proposed stream stabilization will be restricted between the toe and top of the bank of the Ouachita River and BMPs' will minimize any potential to adverse effects on water quality. No pines occur in or near the project area and there will be only a minor disturbance in the river. In addition, the stream work conditions listed below will be followed. Therefore, based on this information, FEMA has determined the development of this site may effect, but not likely to adversely affect any of the listed species in Calhoun County and seeks USFWS concurrence with this determination.

Stream Work Conditions

- Streams, riparian zones, and wetlands shall not be used for equipment staging or refueling areas. Equipment must be stored, serviced, and fueled away from these sensitive areas.
- At minimum, erosion control measures shall include silt fences constructed between disturbed stream bank soils and the stream, compost mulching around plants, and flagging of sensitive areas during construction.
- If the ground is disturbed during construction, it will be planted with native vegetation and/or composted and hydro-seeded following construction.

Thank you for your attention and assistance. Should you have any questions, please do not hesitate to contact the FEMA DR-1845 Environmental Advisor at the Joint Field Office in North Little Rock attn: Lynn Starnes at 501-918-5043 or Alan Hermely at 703-254-9321 (alan.hermely@associates.dhs.gov).

Sincerely,

Lynn B. Starnes

Lynn B. Starnes, Advisor
Environment and Historic Preservation

Site Photographs

Photo 1: View looking south towards the proposed ROW for the road realignment

Photo 2: View looking north towards proposed ROW for the road realignment

Photo 3: View looking south towards the existing road.

Photo 4: View looking south towards the previous bank stabilization installed in 2008.

Photo 5: View looking north towards the eastern banks of the Ouachita River.

Photo 6: View looking west towards the Ouachita River and confluence of an unnamed tributary.

U. S. Department of Homeland Security
Federal Emergency Management Agency
FEMA-1845-DR-AR
FEMA/STATE JFO
2637 Lakewood Village Drive
North Little Rock, AR 72116

7719
FEMA

FEMA

Date 9-3-09
No known historic properties will be affected by this undertaking. This effect determination could change should new information come to light.
Frances McSwain, Deputy State Historic Preservation Officer

September 2, 2009

Mr. George McCluskey
State Historic Preservation Office
Department of Arkansas Heritage
323 Center Street, Suite 1500
Little Rock, AR 72201

AHPP
SEP 02 2009

RE: Request to Initiate Consultation under Section 106 of the National Historic Preservation Act for the Proposed Construction of a Relocated Road CR-244, 0.6 mi South of Ouachita Bridge in Calhoun County, Arkansas

Undertaking: Relocated Road CR-244 0.6 mi South of Ouachita Bridge
Latitude: 33.33962 Longitude -92.52801
UTM: 15S 543922E 3689038N
Quad Map: Calion

Applicant: Calhoun County

Determination: No Historic Properties Affected

Dear Mr. McCluskey:

As part of the response and recovery efforts associated with the flood event that occurred in Calhoun County, Arkansas in April and May of 2009 (designated as FEMA-1845-DR-AR), it is proposed that federal funding through FEMA's Public Assistance Program be provided for the replacement of portions of County Road 244 Calhoun County, Arkansas.

Heavy rains resulted in overland flooding; this flooding caused heavy flows along creeks, ditches, and river banks resulting in erosion of the river bank line. This flooding caused the road, shoulder and embankment of CR 244 to collapse into the Ouachita River. As a result of the collapse, the road bed is now removed from the pre-disaster footprint and FEMA is not able to return this road to pre-disaster condition.

The County plans to acquire a 60-foot wide easement from the lumber company that owns the adjacent property. It is proposed that the 270 foot portion of the road that washed out be set back 30 to 60 feet into a lumber company's property. The new portion of the road would be 1200 feet in length and 24 feet wide, the new road will not be

excavated, the applicant plans to add 4 CMPs, dirt fill, and add gravel to the existing grade and then shape and grade the new gravel. A sketch map provided by the applicant is enclosed.

A hydraulics and hydrology (H&H) study performed by the USACE has determined that the road needs to be relocated to prevent further erosion of the existing road. At this time, we do not have definite plans for the exact location of the relocated road, we only have two proposals. One is to take the new road bed to the area immediately parallel to the existing road and the other is to cut the road up further and then to build it further inland but parallel to the existing road.

FEMA has determined that the Area of Potential Affect (APE) will be limited to the new right-of-way acquired for the road. There are no known listings on the National Register of Historic Places (NHRP) in the proposed project area. A review of the archaeological data in the Automated Management of Archaeological Site Data in Arkansas (AMASDA) indicates that there are two previously recorded archaeological sites in the APE.

Site number 3UN0200 is located approximately 0.23 km to the southwest of the project area. This site was recorded in November 1982 and it consists of a historic structural feature, a turn-table type historic Rail Road Bridge that is no longer extant. Only concrete remains are visible on the other side of the river bank. At the time of recordation, this site was eligible for listing on the NHRP, however now that the bridge no longer remains; it may no longer be eligible.

Site number 3CA0265 is located approximately 0.367km to the east of the project area. This site was recorded in October 1982 and it consists of a pre-historic midden that contained 2 human burials, numerous lithics, ceramics and faunal remains. At the time of recordation, this site was eligible for listing on the NHRP.

County Road 244 was previously damaged in another storm during a declared disaster in the spring/summer of 2008 (FEMA-DR-1751-AR). As a result of this damage, the County (applicant) rip rapped the bank line on the west side of the road in order to stabilize it and prevent future damage. Per previous consultation with the Arkansas SHPO on June 13, 2008, there was No Historic Properties Affected by the rip rap project. The new easement is partially a wetland area. The remainder of the APE consists of soft, sandy loam soil that is riddled with small creek beds. The remainder of the APE is located in an area characterized by new growth cypress and sweet gum trees. This area showed signs of disturbance including periodic overland flooding.

A site visit was conducted on August 20, 2009 by EHP Specialist Chelsea Klein. A walkover survey of the APE did not reveal any cultural material or evidence of cultural features. No subsurface testing was conducted during the site visit.

Based on the information gathered through this review process, FEMA has determined that there will be **No Historic Properties Affected** as a result of the relocation of County Road 244. We request concurrence with this determination of effect. Photographs and a USGS Topographic map showing the project location are attached.

Should you need additional information, please contact Chelsea Klein, Historic Preservation Specialist at (501) 918-3114.

Sincerely,

Bridget Zachary
Environmental Advisor
FEMA-1845-DR-AR

Attachments: (3)
Aerial photograph of site
Topographic Map
Photographs
Sketch map

Appendix B
Eight-Step Process Checklist for Floodplains

8- STEP CHECKLIST - EO 11988 and EO 11990

FLOODPLAIN MANAGEMENT – CHECKLIST (44 CFR Part 9)

Project Amount		
≤$5,000	No 8-Step Required	
$5,000-$25,000	Steps 1, 4, 5, 8	Abbreviated process (only steps 1, 4, 5, 8) unless it is in floodway or coastal high hazard area, it is not repair (it is actually new construction or 'substantial improvement") or it is a structure or facility that has sustained repetitive damage from flooding from a disaster.
$25,000-$100,000	Steps 1, 2, 4, 5, 8	Abbreviated process (only steps 1, 2, 4, 5, and 8) unless it is in a floodway or coastal high hazard area, it is not repair (it is actually new construction or substantial improvement) or it is a structure or facility that has sustained repetitive damage from flooding from a disaster.
≥$100,000	Full 8-Step	

PROJECT TITLE: JDA-011 Road System Damage

PROPOSED ACTION: The applicant proposes to construct a bypass road through a flood zone and a wetland, because the current road is unsafe due to erosion caused by the Ouachita River.

Actions which have the potential to be located in a Floodway or Coastal High Hazard Area.

☐**YES** ☒**NO** Does the project include encroachments, including fill, new construction substantial improvements of structures or facilities, or other development within a designated regulatory floodway?

☐**YES** ☒**NO** The proposed action is located in a V-Zone as identified on the current effective Flood Insurance Rate Map (FIRM) or more recent best available data such as Advisory Base Flood Elevations (ABFE) or preliminary DFIRM.

☐**YES** ☒ **NO** Is the project functionally dependent upon being near the water?

☐**YES** ☒ **NO** Does the project facilitate open space use?

STEP NO. 1 Determine whether the proposed action is located in a wetland and/or the 100-year floodplain (500-year floodplain for critical actions); and whether it has the potential to affect or be affected by a floodplain or wetland (see Sec. 9.7);

.Flood Hazard data available (check the box that applies)

☒**YES** ☐**NO** The project is located in a 100 year floodplain as mapped by

FIRM No: 0504210225A, Dated: 12/19/1997

☐**YES** ☐**NO** The project is located in a 500 year floodplain as mapped by FIRM Panel No. , Dated .

☐**YES** ☐**NO** The project is located in a floodplain as mapped by a FEMA draft/preliminary study. Name Dated .

☐**YES** ☐**NO** The project is located in a floodplain as mapped by the local community. Name Dated .

☐**YES** ☐**NO** The project is located in a floodplain as mapped by another Agency (State, Corps, USGS, NRCS, and etc.) Agency, Name Dated

Flood Hazard data not available

☐**YES** ☐**NO** The proposed action is subject to flooding based on evaluation from soil surveys, aerial photos, site visits and other available data. Evaluation material used in determination:

☐**YES** ☐**NO** FEMA assumes the proposed action is subject to flooding based upon on previous flooding of the facility/structure.

IF ANY OF THE ABOVE ANSWERS ARE YES, CONTINUE WITH THE FOLLOWING STEPS, OTHERWISE REVIEW IS COMPLETE.

STEP NO. 2 Notify the public at the earliest possible time of the intent to carry out an action in a floodplain or wetland, and involve the affected and interested public in the decision-making process (see Sec. 9.8);

☐ Notice was provided as part of a disaster cumulative notice.

☒ Project Specific Notice was provided by: FEMA

Type of Public Notice:

☒ Newspaper, (name: The Arkansas Democrat Gazette and The South Arkansas Sun)

☐ Post Site, (location:)

☐ Broadcast, (station:)

☐ Direct Mailing, (area:)

☐ Public Meeting, (dates:)

☐ Other:

Date of Public Notice: June 18, 2010

STEP NO. 3 Identify and evaluate practicable alternatives to locating the proposed action in a floodplain or wetland (including alternative sites, actions and the ``no action'' option) (see Sec.

9.9). If a practicable alternative exists outside the floodplain or wetland FEMA must locate the action at the alternative site.

Alternative Options

☐**YES** ☒**NO** Is there a practicable alternative site location outside of the 100-year floodplain?

Site location:

☐**YES** ☒**NO** For Critical Actions, is there a practicable alternative site location outside of the 500-year floodplain?

Site location:

☐**YES** ☒**NO** Is there a practicable alternative action outside of the 100-year floodplain that will not affect the floodplain?

Alternative action: The applicant proposes to construct a bypass road through a flood zone because the flood zone is so extensive that it eliminates all practicable alternatives.

☐**YES** ☒**NO** Is there a practicable alternative located outside of an identified wetland which will not affect the wetland or wetland values?

Alternative action: The applicant proposes to construct a bypass road through a flood zone because the flood zone is so extensive that it eliminates all practicable alternatives.

☐**YES** ☒**NO** Is the NO Action alternative the most practicable alternative?

IF ANY ABOVE ANSWER IS YES, THEN FEMA SHALL TAKE THAT ACTION AND THE REVIEW IS CONCLUDED. EXPLAIN WHY EACH ALTERNATIVE WAS NOT CHOSEN.

STEP NO. 4 Identify the potential direct and indirect impacts associated with the occupancy or modification of floodplains and wetlands and the potential direct and indirect support of floodplain and wetland development that could result from the proposed action (see Sec. 9.10);

☐**YES** ☒**NO** Is the Proposed Action based on incomplete information?

☒**YES** ☐**NO** Is the proposed action in compliance with the NFIP?

☐**YES** ☒**NO** Does the proposed action increase the risk of flood loss?

☐**YES** ☒**NO** Will the proposed action result in an increased base discharge or increase the flood hazard potential to other properties or structures?

☒**YES** ☐**NO** Does the proposed action minimize the impact of floods on human health, safety and welfare?

☐**YES** ☒**NO** Will the proposed action induce future growth and development, which will potentially adversely affect the floodplain?

☒**YES** ☐**NO** Does the proposed action involve dredging and/or filling of a floodplain or wetland? Applicant will have to use fill to install the new road to replace the current road that is unsafe to drive on.

☐**YES** ☒**NO** Will the proposed action result in the discharge of pollutants into the floodplain or wetland?

☐**YES** ☒**NO** Does the proposed action avoid long and short-term adverse impacts associated with the occupancy and modification of floodplains or wetlands?

☐**YES** ☒**NO** Will the proposed action result in any indirect impacts that will affect the natural values and functions of floodplains or wetlands?

☐**YES** ☒**NO** Will the proposed action forego an opportunity to restore the natural and beneficial values served by floodplains?

☐**YES** ☒**NO** Does the proposed action restore and/or preserve the natural and beneficial values served by floodplains and/or wetlands?

☒**YES** ☐**NO** Will the proposed action result in an increase to the useful life of a structure or facility?

STEP NO. 5 Minimize the potential adverse impacts and support to or within floodplains and wetlands to be identified under Step 4, restore and preserve the natural and beneficial values served by floodplains, and preserve and enhance the natural and beneficial values served by wetlands (see Sec. 9.11);

☒**YES** ☐**NO** Were flood hazard reduction techniques (see technical bulletins) applied to the proposed action to minimize the flood impacts if site location is in the 100-year floodplain?

If No, Identify flood hazard reduction techniques required as a condition of the grant: (The applicant will construct a bypass road, because the current one is unsafe to drive on due to erosion caused by the Ouachita River*)*.Applicant must coordinate with the Local Flood Plain Administration.

☒**YES** ☐**NO** Were avoidance and minimization measures applied to the proposed action to minimize the short and long term impacts on the 100-year floodplain or wetland?

If no, identify measures required as a condition of the grant:

☒**YES** ☐**NO** Were measures implemented to restore and preserve the natural and beneficial values of the floodplain and/or wetlands.

If no, identify measures required as a condition of the grant:

IF ANY ABOVE ANSWER IS NO, EXPLAIN WHY:

STEP NO. 6 Reevaluate the proposed action to determine first, if it is still practicable in light of its exposure to flood hazards, the extent to which it will aggravate the hazards to others, and its potential to disrupt floodplain and wetland values and second, if alternatives preliminarily rejected at step 3 are practicable in light of the information gained in Steps 4 and 5. FEMA shall not act in a floodplain or wetland unless it is the only practicable location (see Sec. 9.9);

☒**YES** ☐**NO** The action is still practicable at a floodplain site in light of the exposure to flood risk and ensuing disruption of natural values;

☒**YES** ☐**NO** The floodplain site is the only practicable alternative.

☒**YES** ☐**NO** There is no potential for limiting the action to increase the practicability of previously rejected non-floodplain sites and alternative actions.

☒**YES** ☐**NO** Minimization of harm to or within the floodplain can be achieved using all practicable means.

☒**YES** ☐**NO** The action in a floodplain clearly outweighs the requirement of E.O. 11988. Health and safety mandates access to the area and this road is only viable option.

STEP NO. 7 Prepare and provide the public with a finding and public explanation of any final decision that the floodplain or wetland is the only practicable alternative (see Sec. 9.12);

☒ Final Notice was provided as part of the floodplain notice. See EO 11988 checklist.

☐ Notice was provided as part of a disaster cumulative notice.

☒ Project Specific Notice was provided by: FEMA

Type of Public Notice:

☒ Newspaper, (name: The Arkansas Democrat Gazette and The South Arkansas Sun)

☐ Post Site, (location:)

☐ Broadcast, (station:)

☐ Direct Mailing, (area:)

☐ Public Meeting, (dates:)

☐ Other:

Date of Public Notice:

AFTER PROVIDING THE FINAL NOTICE, FEMA SHALL, WITHOUT GOOD CAUSE SHOWN, WAIT AT LEAST 15 DAYS BEFORE CARRYING OUT THE PROPOSED ACTION.

STEP NO. 8 Review the implementation and post-implementation phases of the proposed action to ensure that the requirements stated in Sec. 9.11 are fully implemented. Oversight responsibility shall be integrated into existing processes.

☒**YES** ☐**NO** Was Grant conditioned on review of implementation and post-implementation phases to insure compliance of EO 11988? This step is completed with the NEPA determination.

Appendix C
Photograph Log

Site Photographs

Photo 1: View looking south at the proposed ROW for the road realignment

Photo 2: View looking north at the proposed ROW for the road realignment

Site Photographs

Photo 3: View looking south along existing CR 244.

Photo 4: View looking south at the previous bank stabilization riprap installed in 2008.

Site Photographs

Photo 5: View looking north along the eastern banks of the Ouachita River.

Photo 6: View looking west toward the Ouachita River and confluence of an unnamed tributary.

Site Photographs

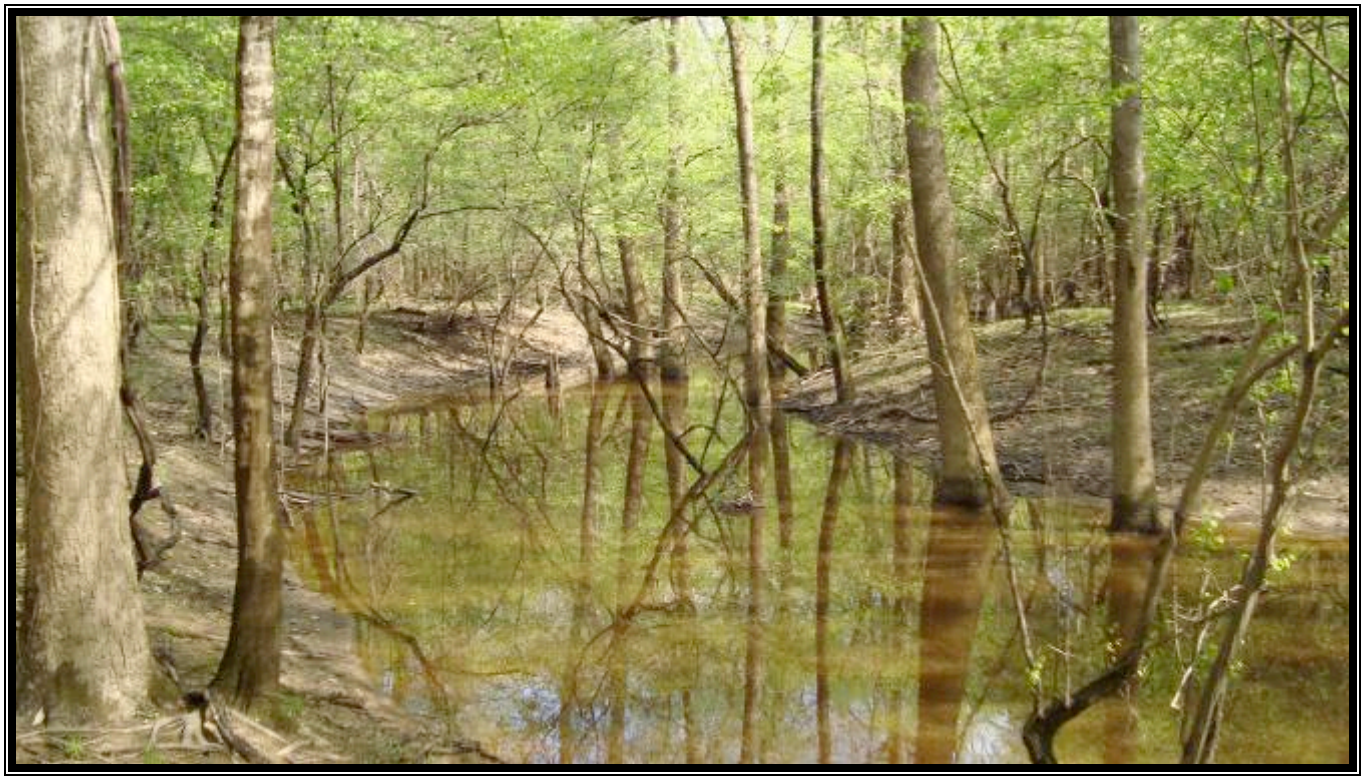


Photo 7: Typical view of a water channel in the forested floodplain in the project study area.

Photo 8: Typical view of small privately owned oil fields in the project study area on CR 244.