Draft Environmental Assessment

City of Batesville Replacement of Pedestrian Bridge on New Location

City of Batesville, Arkansas

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ACHP	Advisory Council on Historic Preservation
ADEQ	Arkansas Department of Environmental Quality
AGS	Arkansas Geological Survey
AHPP	Arkansas Historic Preservation Program
amsl	above mean sea level
ANHC	Arkansas Natural Heritage Commission
APE	Area of Potential Effect
BMP	Best Management Practice
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
cfs	Cubic Feet per Second
CO	carbon monoxide
CWA	Clean Water Act
dB	decibel
DNL	Day-Night Average Sound Level
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
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
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
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
NWP	Nationwide Permit
O_3	ozone
OSHA	Occupational Safety and Health Administration
Pb	lead
PM	particulate matter
RCRA	Resource Conservation and Recovery Act
SO_2	sulfur dioxide

STAA	Short Term Activity Authorization
SWA	Solid Waste Act
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Officer
TSCA	Toxic Substances Control Act
UA	University of Arkansas
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

On March 26, 2008, President Bush declared a major disaster due to severe thunderstorms, tornadoes, and flooding that began on March 18, 2008 (FEMA-1751-DR-AR). As a direct result of heavy rainfall inundating the City of Batesville, AR, severe flooding along the Poke Bayou caused damages to the City of Batesville's hiking trail park. The hiking trail park consists of mulched paths and a 23-foot long by 4-foot wide pedestrian bridge over the Poke Bayou. The City of Batesville has prepared and submitted an application (PA-06-AR-1751-PW-04297) for Federal Emergency Management Agency (FEMA) funding under the Public Assistance program being administered in response to FEMA-1751-DR-AR. Under Section 406(e) of the Stafford Act, FEMA is considering funding the construction of the City of Batesville pedestrian bridge damaged by flooding to be built on a new location as an Improved Project. An Improved Project is any project for which the applicant chooses to make additional improvements to a facility while still restoring its pre-disaster function and at least its pre-disaster capacity.

In accordance with 44 Code of Federal Regulations (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 (CEQ) regulations to implement NEPA (40 CFR 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 pedestrian bridge crossing the Stillhouse Branch of the White River in the City of Batesville, AR. 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).

SECTION TWO PURPOSE AND NEED

The project area received over 11.4 inches of rain in March of 2008. The monthly average for March in this area is 4.5 inches (NOAA 2009). The heavy rainfall caused regional flooding within the Poke Bayou and surrounding areas, including parts of the City of Batesville. This flooding caused extensive damage to the City of Batesville public park system including walking trails, picnic areas, and playgrounds within the Poke Bayou floodplain. A walking trail pedestrian bridge that crossed the Poke Bayou (latitude/longitude = 35.78596/-91.64508) was completely washed out. The City of Batesville had considered replacing this pedestrian bridge; however, the lack of site access due to the recent private land development along the park boundaries prevents reconstructing the bridge in the same location.

One of the City of Batesville priorities is to provide a walking trail system that encourages the public to maintain a healthier lifestyle. The purpose and need for the project is to support the City's comprehensive plan of a walking trail that connects the recreational areas to the commercial areas of town via a pedestrian bridge.

SECTION THREE ALTERNATIVES

This section describes the alternatives that were considered in addressing the purpose and need stated in Section 2 above. Two alternatives are evaluated in this EA: the No Action Alternative (Alternative 1), and the Proposed Action Alternative (Alternative 2), which is a pedestrian foot bridge that crosses the Stillhouse Branch of the White River on a new location.

3.1 ALTERNATIVE 1: NO ACTION

Under the No Action Alternative, the pedestrian bridge would not be replaced. The City of Batesville walking trail system would provide limited public access and would be isolated from the commercial areas of the town. This may reduce the trail's popularity and could discourage its use.

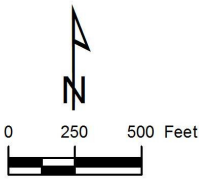
3.2 ALTERNATIVE 2: REPLACE PEDESTRIAN BRIDGE ON NEW LOCATION (PROPOSED ACTION)

The City of Batesville has proposed to replace the pedestrian bridge on a new location which would cross the Stillhouse Branch of the White River. The proposed project site is located adjacent to Riverside Park, 280 feet east of Chaney Drive (River Road) within the corporate limits of the City of Batesville, Independence County, AR (latitude/longitude = 35.758763/-91.635609; Figure 1). This new location is approximately 2 miles south of the original pedestrian bridge (Figure 2). The areas immediately adjacent to the site include a maintained lawn with scattered trees to the south and a narrow wooded area to the north. Further north is the City of Batesville wastewater treatment plant.

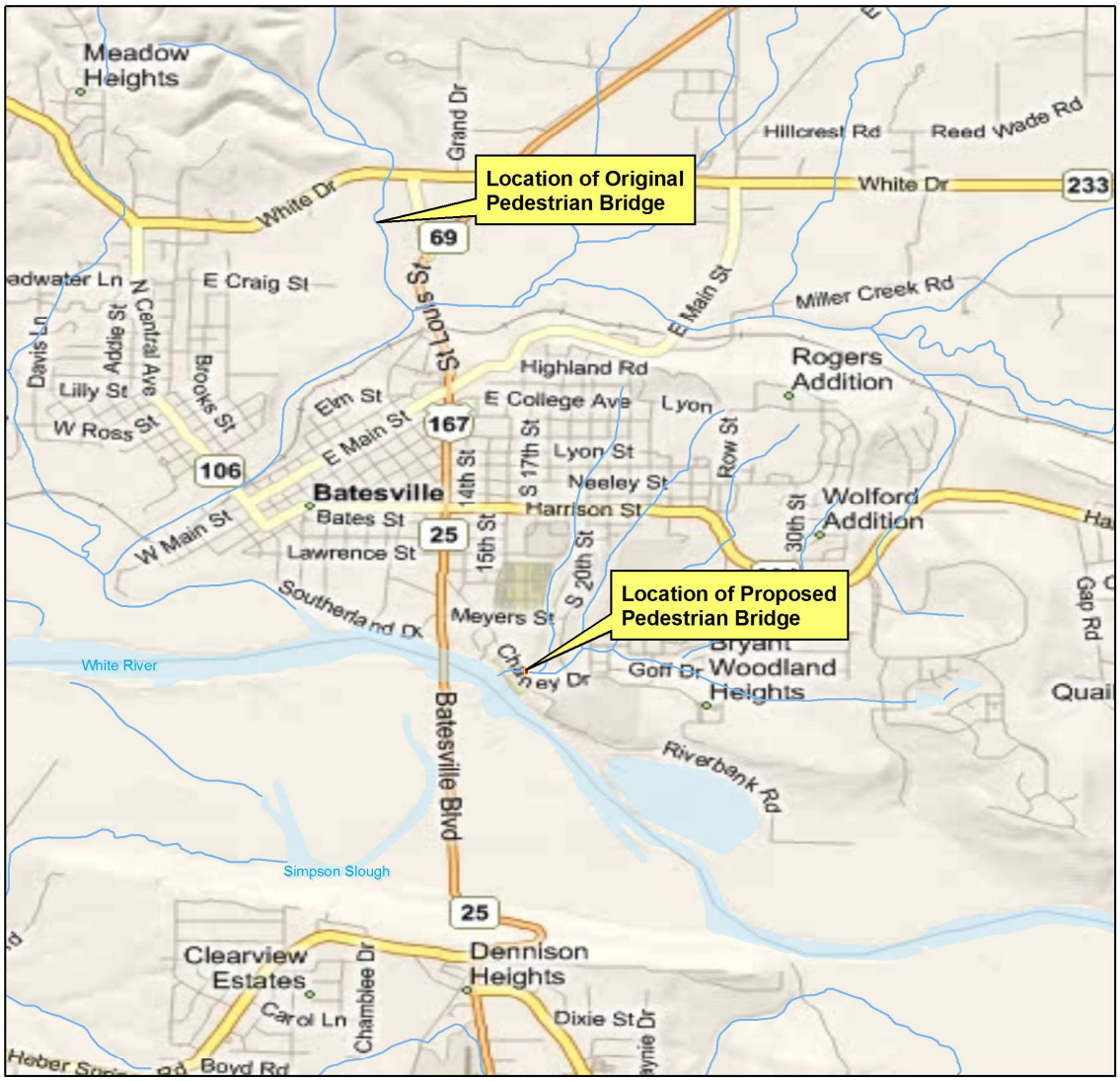
The new pedestrian bridge would be part of a short spur trial that connects to a large-scale walking trail proposed in the City of Batesville's comprehensive plan. The new bridge would be adjacent to Riverside City Park, a large city park visited daily by hundreds of people. The city park consists of public facilities such as picnic areas, playgrounds, a golf course, a walking trail, and open recreation areas. The City anticipates the usage of the new bridge to be many times the usage of the original bridge, which was in a more remote location.

The new bridge would be a 31-foot long and 10-foot wide precast concrete bridge. Rip-rap will be used under the bridge and around the wing walls to prevent undermining of the bridge footings and the adjacent creek bank. An estimated 850 square feet of rip-rap will be installed as part of the bridge construction. Concrete footers on both stream banks would support the bridge over the stream. The bridge footings will each be 6 feet wide and 11.5 feet long. The footings are designed to be 1.5 feet below the bottom of the creek bed. Both footers would be placed outside the stream channel that carries normal base flow. The opening under the bridge will be 30 feet wide and 9.5 feet high. The proposed bridge is to be constructed from precast bridge panels.

Data Source: Microsoft Bing, ESRI



NISTAC	Job #: 15708917.00100 Prepared by: AH / KM Date: Sept 2010	**Figure 1** **Project Location Map** **Draft Environmental Assessment** **City of Batesville Pedestrian Bridge Project** **Independence County, Arkansas**



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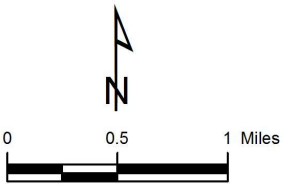


NISTAC	Job #: 15708917.00100 Prepared by: AH / KM Date: Sept 2010	**Figure 2** **Regional Map of Pedestrain Bridge Locations** **Draft Environmental Assessment** **City of Batesville Pedestrian Bridge Project** **Independence County, Arkansas**

Based on the Final Hydraulics and Hydrology (H&H) study prepared by the City of Batesville, the proposed bridge will allow 3,985 cubic feet per second (cfs) flow; the estimated flow for a 100-year flood event (1% event) is 1,370 cfs, and for a 500-year event (0.2% event) is 2,110 cfs. Cfs is a volumetric flow rate, which is equivalent to a volume of 1 cubic foot flowing every second. The construction of the bridge and approaches will force the water to flow through a narrower area under the bridge, which will increase water velocities. During flood events the bridge will not have any effect on downstream flood elevations. The ground elevation at the bridge piers is approximately 247 feet above mean sea level (amsl) and the normal water elevation in this area is approximately 246 feet amsl. The term amsl refers to the elevation of any object, relative to the average sea level. The top of the proposed pedestrian bridge is 253.42 feet amsl; the 10% flood elevation is 261.00 +/- feet amsl. As a result, the pedestrian bridge will be underwater during most flood events. The City of Batesville floodplain administrator has reviewed the project and has indicated that the project appears acceptable to the floodplain management regulations based upon the fact that the flood carrying capacity has not been diminished and that the project does not adversely impact any other lands during a flood event (Appendix A). The base of the connecting walking trail would be raised in a gentle grade between the top of the bridge and where the trail will connect with the existing ground. Figure 3 shows the proposed site plan and cross-section.

3.3 ALTERNATIVES CONSIDERED AND DISMISSED

One other alternative (to repair the pedestrian bridge at its original location) was considered but dismissed because it did not meet the purpose and need for the project and was considered not feasible.

The City of Batesville considered replacing the pedestrian bridge in its original location; however, the lack of site access due to private land development along the park boundaries renders this alternative not feasible. The original bridge was located in a remote location that led to a dead-end trail. The City of Batesville estimates that the original bridge was used by 30-50 people a month. However, the number of people who used the bridge is probably much less because the bridge's trail dead-ended a short distance west of the Poke Bayou.

In addition, one of the existing bridge's piers was pushed over during the flood. This pier would have to be removed and then replaced. Work in this area is not feasible due to the remoteness of this location and the restrictions on site access due to recent adjacent land development.

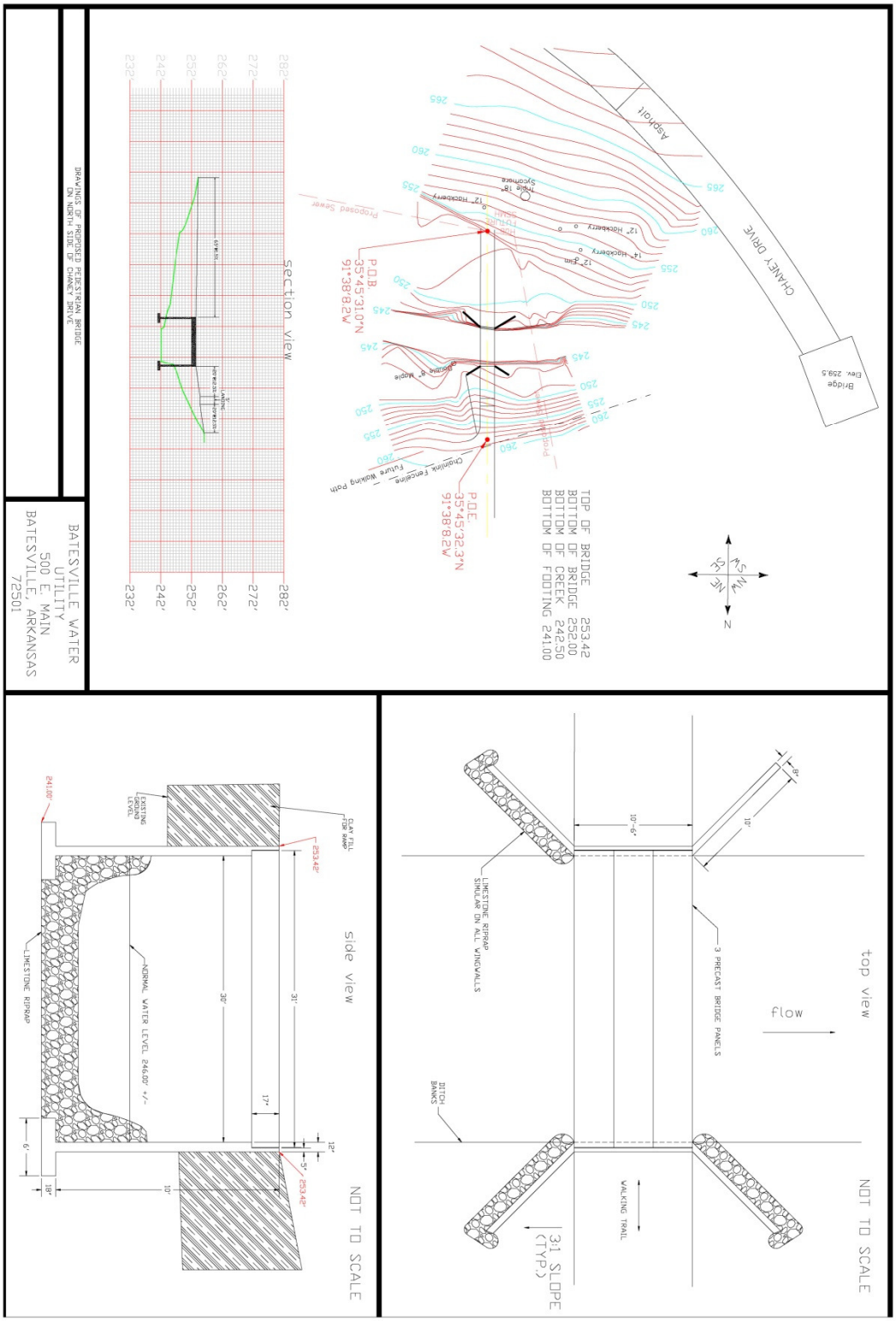


Figure 3: Proposed Pedestrian Bridge Plan View and Cross-Section

SECTION FOUR AFFECTED ENVIRONMENT AND IMPACTS

This section describes the potential impacts of the No-Action Alternative and the Proposed Action Alternative. Where potential impacts exist, conditions or mitigation measures to offset these impacts are detailed. A summary table is provided in Section 4.8.

4.1 GEOLOGY AND SOILS

The project area is in the Pitkin Limestone, Fayetteville Shale, and Batesville Sandstone formation within the Springfield Plateau, a subregion of the Ozark Plateau physiographic region located in the northern part of Arkansas. Pitkin Limestone is 100% limestone that is approximately 100 feet thick. Fayetteville Shale is a black shale with interbedded sandstone and minor limestone that is approximately 200 feet thick. Batesville Sandstone is a sandstone with some interbedded shale and limestone that is approximately 200 feet thick. Fossils are often abundant in this formation. The region is dominated by soluble bedrock known as karst. Sinkholes and caves are common in karst terrain (AGS 2010).

A review of the United States Geological Survey (USGS 1989) 7.5-minute topographic map for the Batesville quadrangle indicates that the elevation of the proposed project site is 240 feet amsl. Local topography slopes to the southwest toward the nearby White 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 Linker gravelly fine sandy loam, 8 to 12 percent slopes. Linker soil consists of moderately deep, well-drained, moderately permeable soils that are weathered from sandstone. These soils are found on broad plateaus, mountains, hilltops, and benches. Slopes are dominantly 1 to 15 percent but can range to 30 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 Linker gravelly fine sandy loam soils are 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 there would be no impacts to geology or soils.

Alternative 2 – Replace Pedestrian Bridge on New Location

Under the Proposed Action Alternative, no impacts to geology would occur because construction activities would not be deep enough to impact underlying geologic resources. Minor impacts to soils are anticipated. Approximately ¼ acre of soils on the proposed project site would be disturbed to construct the pedestrian bridge. Minimal soil disturbance is anticipated from the rip-rap scour protection for the bridge piers that are proposed to be placed on the banks of the Stillhouse Branch. The pedestrian bridge piers will not be of sufficient depth to impact geology 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) will be required at the construction location. BMPs will 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 Stillhouse Branch begin approximately 1 mile from the project area in Batesville near Harrison Street (Route 69) and flow southwest into the White River. The White River flows south-southeast through Arkansas and merges with the Mississippi River at the White River National Wildlife Refuge. In the project area, the water quality for the Stillhouse Branch has not been designated by the ADEQ. However, the section of the White River that is directly adjacent to the project area has an ADEQ water quality designation for fish and wildlife propagation, primary and secondary contact recreation, and domestic, agricultural and industrial water supply uses.

The Stillhouse Branch has not been designated as a 303(d) Impaired Waters stream (ADEQ 2010). The CWA requires states to periodically assess and report on the quality of waters in their state. Section 303(d) of the Act also requires states to report on streams and lakes identified as impaired for one or more pollutants and that do not meet one or more water quality standards. Impaired waters are identified through assessment and monitoring programs. For these impaired waters, states must consider strategies to reduce the input of the specific pollutant(s) restricting waterbody uses, in order to restore and protect the resource value. There are no wild and scenic rivers, as designated by the Wild and Scenic Rivers Act, in the project area.

Wetlands are addressed in Section 4.2.3, Waters of the U.S. Including Wetlands.

Alternative 1 – No Action Alternative

Under the No Action Alternative, no construction would occur and there would be no impacts on surface water.

Alternative 2 – Replace Pedestrian Bridge on New Location

Under the Proposed Action Alternative, minor, short-term impacts to the Stillhouse Branch may occur during the pedestrian bridge construction period due to soil erosion. To reduce potential impacts to surface water, the applicant will implement appropriate BMPs such as installing silt fences and re-vegetating bare soils. The applicant may also be required to obtain a NPDES permit prior to construction if necessary. The ADEQ has approved a STAA for the proposed

pedestrian bridge on Stillhouse Branch. Per the conditions of the STAA, the applicant will limit the constructions activities to low flow conditions as much as possible, the applicant will take all reasonable measures to limit equipment in the stream, the applicant will utilize BMPs to minimize the impacts of sedimentation and turbidly to the stream, and the applicant will take all reasonable measures to prevent the spillage of chemicals or petroleum products into the stream. The STAA will extend for a period two months after construction has been started (Appendix A).

4.2.2 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 (FIRMs) to identify the regulatory 100-year floodplain for the National Flood Insurance Program (NFIP). The FIRM (Community Panel Number 05063C 0195D) identifies the project area within the floodway boundary of Zone AE. A "Regulatory Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height (FEMA, 1997; see Figure 4).

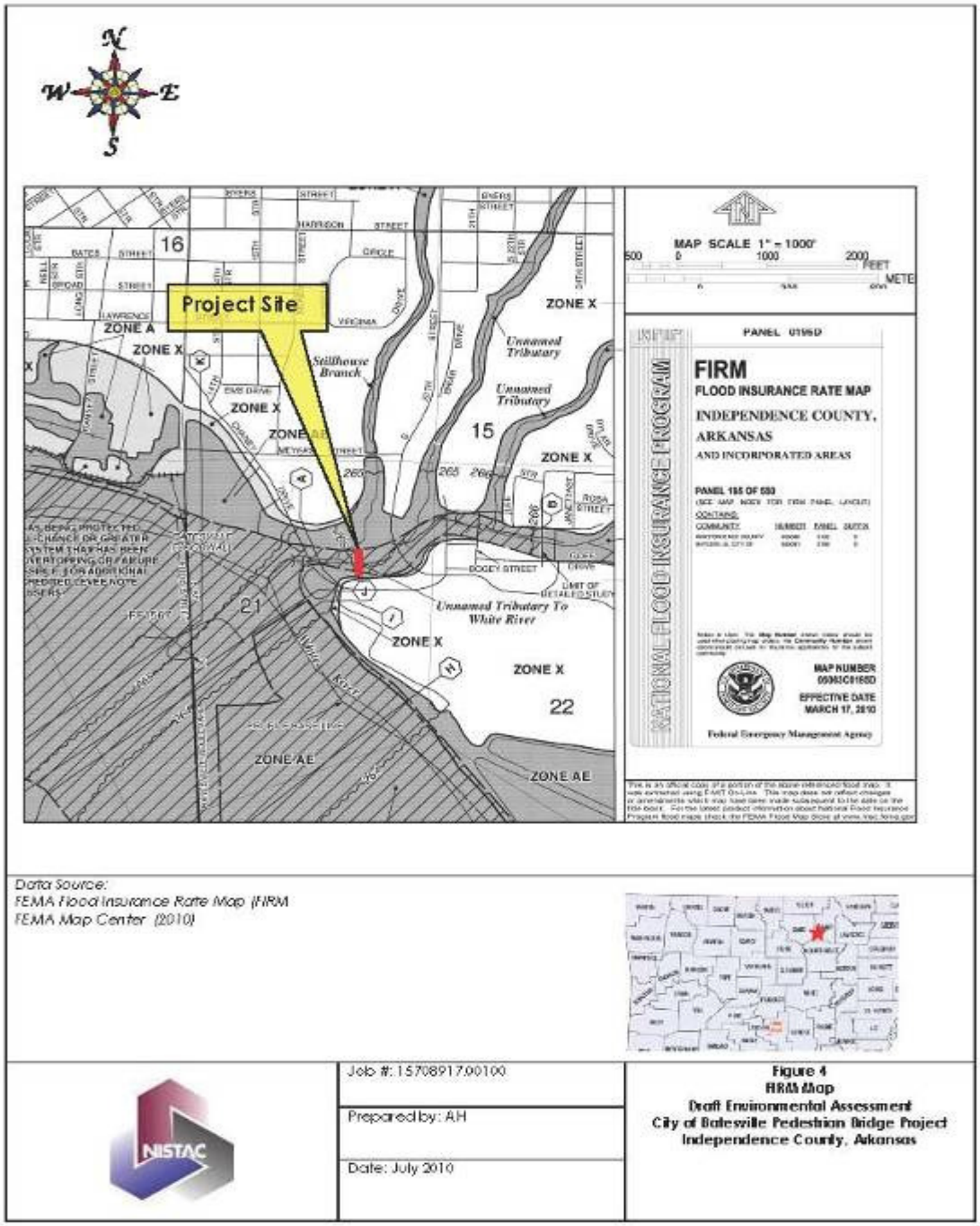
The construction of this project would take place within the 100-year floodplain. To comply with EO 11988, FEMA is required to follow the procedure outlined in 44 CFR Part 9 to assure that alternatives to the proposed action have been considered. This process, also known as the “Eight-Step Process Checklist 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 – Replace Pedestrian Bridge on New Location

Under the Proposed Action Alternative, no impact to the floodplain is anticipated. The proposed project is located within the 100-year floodplain as well as the floodway. Construction of this project is not anticipated to have any impacts on the base floodplain elevation. However, 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 of the 100-year floodplain (Appendix B). This structure may be considered as a functionally dependent use by the NFIP. A functionally dependent use is one that must be located or carried out close to water. The structure must be protected by methods that minimize flood damage during flooding and create no additional



threats to public safety. The City of Batesville floodplain administrator has reviewed the project and has indicated that the project appears acceptable to the floodplain management regulations based upon the fact that the flood carrying capacity has not been diminished and that the project

would not appear to contribute to any adverse impacts of any surrounding properties during a flood event (Appendix A).

The City of Batesville must coordinate with the local floodplain administrator and obtain required permits prior to initiating work. All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files.

The City of Batesville must prepare and provide Public Notice issued 15 days prior to the start of construction of any final decision where proposed floodplain or wetland project is the only practicable alternative.

4.2.3 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 CWA. 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. Depending 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, per the disaster-specific guidance issued by USACE, ADEQ, and FEMA, 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.

Stillhouse Branch is considered a Water of the U.S. 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 on or near the project area. The NWI map indicated there is a palustrine, broad-leaved deciduous forested, seasonally flooded wetland adjacent to and directly east of the project site (USFWS 2010).

Alternative 1 – No Action Alternative

Under the No Action Alternative, there would be no impacts to wetlands or Waters of the U.S. and no permits would be required.

Alternative 2 – Replace Pedestrian Bridge on New Location

Under the Proposed Action Alternative, there will be minor impacts to Waters of the U.S. There are no wetlands in the project area and no impacts to wetlands are anticipated. However, because the project is adjacent to potential wetlands located to the east, barrier fencing will be required to keep all pedestrian bridge construction within the project's right-of-way.

There will be minor impacts to Stillhouse Branch resulting from the pedestrian bridge pier scour protection. A portion of the streambank will be rip-rapped, limiting the ability of bank vegetation to become established.

The USACE Little Rock District has indicated in the MPIS for this project that a Nationwide Permit (NWP) 14 is required for construction activities (Appendix A). The NWP 14 applies to the construction, expansion, modification, or improvement of linear transportation projects. A Pre-Construction Notice is required for the NWP 14 as well. The Pre-construction Notification is a request submitted by the applicant to the USACE for confirmation that a particular activity is authorized under a nationwide permit.

4.3 TRANSPORTATION

The proposed project site is located adjacent to Chaney Drive (River Road) in Riverside Park, in Batesville, AR. The proposed project area is bounded by Chaney Drive (River Road) to the west and south, 20th Street to the east, and Myers Avenue to the north. Route 167/25 (Batesville Boulevard) is located west of the project. Route 167/25 is an urban highway that extends in a north/south direction connecting Batesville with Cave City to the north and Pleasant Plains to the south.

Alternative 1 – No Action Alternative

Under the No Action Alternative, there would be no effect on vehicular transportation in the area because no construction would occur. Pedestrians and bicyclists would not have access between recreational areas and the commercial areas of town.

Alternative 2 – Replace Pedestrian Bridge on New Location

Under the Proposed Action Alternative, there would be a minor, temporary increase in construction traffic on Chaney Drive (River Road) 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 beyond the road along the streambanks of Stillhouse Branch. The pedestrian trail will be built after the construction of the pedestrian bridge, and therefore will not be impacted during construction. Impacts to transportation in the project area would be temporary and minor during the construction phase of the project.

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.

According to the U.S. Census Bureau (USCB), the City of Batesville has 9,445 residents. In 1999, the median household income was $ 33,133, with 11.1 percent of people living below the poverty level. In 2008, the median income for households in Independence County was $ 31,920, with 9.9 percent of people living below the poverty level. The median household income for the state of Arkansas was $32,182, with 12.0 percent of people living below the poverty level (USCB 2000).

Minorities represented 8.6 percent, 5.1 percent, and 20.0 percent, respectively, of the City of Batesville, Independence County, and the State of Arkansas populations. The following table shows the specific racial composition of the City of Batesville, Independence County, and the State of Arkansas.

Ethnicity	City of Batesville	Independence County	State of Arkansas
White	91.4%	94.9%	80.0%
Black or African American	4.6%	2.0%	15.7%
American Indian or Native Alaskan	0.3%	0.5%	0.7%
Asian	1.2%	0.6%	0.8%
Native Hawaiian or Other Pacific Islander	0.1%	0.0%	0.1%

Source: USCB 2000

Alternative 1 – No Action Alternative

Under the No Action Alternative, there would be no disproportionately high or adverse impact on minority or low-income portions of the population. The original pedestrian bridge was located in a remote area that was accessible only by car. The lack of a bridge in this remote area would not likely affect local populations.

Alternative 2 – Replace Pedestrian Bridge on New Location

Under the Proposed Action Alternative, 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. The new bridge would be accessible and beneficial to all members of the community.

4.5 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 park area and is not located near any sensitive receptors.

Alternative 1 – No Action Alternative

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

Alternative 2 – Replace Pedestrian Bridge on New Location

Under the Proposed Action Alternative, there would be minor impacts to noise. 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 will take place during normal business hours and equipment will meet all local, State, and Federal noise regulations.

4.6 BIOLOGICAL RESOURCES

The project area is located in the Ozark Highlands natural region of Arkansas, where vegetation is mostly characterized by forests of oak-hickory and oak-pine cover types. Within the project area, the Stillhouse Branch stream corridor is dominated by a narrow hardwood forest buffer that is located in the floodplain of the nearby White River. The White River supports a diverse riparian habitat that is heavily influenced by human development. An artificial lake (Lake Unico) has been created on the White River by a nearby hydroelectric dam. Riverside Park and Chaney Drive (River Road) separate the project area from the White River. The park consists of a maintained lawn with passive recreation areas. Chaney Drive (River Road) is a maintained paved road that provides access to the park and to other regional roads. To the north of the project area is the City of Batesville wastewater treatment plant.

4.6.1 Terrestrial Habitat

The regional vegetation is composed mostly of upland hardwood forest trees and understory vegetation. The area is dominated by blackgum (*Nyssa sylvatica*), black oak (*Quercus velutina*), northern red oak (*Quercus rubra*), red maple (*Acer rubrum*), and white oak (*Quercus alba*), with an understory of poison-ivy (*Toxicodendron radicans*), and Virginia creeper (*Parthenocissus quinquefolia*). Herbaceous vegetation observed in the project area included dogbane (*Apocynum cannabinum*), goldenrods (*Solidago* spp.), horse nettle (*Solanum carolinense*), Queen Anne's lace (*Daucus carota*), and tall fescue (*Festuca arundinacea*).

The common animals in this region include opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and white-tailed deer (*Odocoileus virginianus*). Resident and migratory bird species that are commonly found in the area include mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*) and cardinal (*Cardinalis cardinalis*). Common reptiles and amphibians include box turtle (*Terrapene carolina*), garter snake (*Thamnophis sirtalis*), and cottonmouth (*Agkistrodon piscivorus*).

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 – Replace Pedestrian Bridge on New Location

Under the Proposed Action Alternative, approximately ¼ acre of wooded terrestrial habitat on the proposed project site would be disturbed to construct the pedestrian bridge.

4.6.2 Aquatic Habitat

Within the project area, the Stillhouse Branch is low gradient perennial stream. The typical dominant fish species in the regional small streams near Batesville are the bigeye shiner (*Notropis boops*), bluntnose minnow (*Pimephales notatus*), and longear (*Lepomis megalotis*).

Alternative 1 –- No Action Alternative

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

Alternative 2 – Replace Pedestrian Bridge on New Location

Under the Proposed Action Alternative, minor impacts to the Stillhouse Branch may occur during the pedestrian bridge construction due to soil erosion. To reduce potential impacts to surface water, the applicant will implement appropriate BMPs, such as installing silt fences and re-vegetating bare soils, for the protection of the stream. The applicant will also be required to obtain SWPPP and NPDES permits prior to construction if necessary.

4.6.3 Migratory Bird Treaty Act

The project area is located within the Ozark-Ouachita Plateau of the Mississippi Flyway. The mixed habitat of forest and open parkland within the project area has the potential to provide resting, feeding, and breeding grounds for migratory birds. However, the project site is also disturbed regularly by public visitation to the park and park maintenance activities that include mowing.

Alternative 1 – No Action Alternative

Under the No Action Alternative, there would be no impacts to migratory birds because on construction would occur.

Alternative 2 – Replace Pedestrian Bridge on New Location

Under the Proposed Action Alternative, a few trees may be removed along the stream corridor during the bridge construction. No impacts to migratory bird species are anticipated because construction for the proposed project will be restricted to a walking trail right-of-way for the pedestrian bridge and these species typically use areas only on a temporary basis. An agency consultation letter from FEMA to USFWS dated August 10, 2010, requested project review and concurrence with FEMA's determination that the project would have no impact to migratory birds. A USFWS response letter dated October 27, 2010, identified no concerns to migratory birds (Appendix A).

4.6.4 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 (ANHC) identified 22 invertebrates, 21 vertebrates, 12 plants, and 1 colonial nesting site for water birds as species of concern in Independence County.

Four species are listed as endangered by the USFWS in Independence County: the gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), pink mucket pearlymussel (*Lampsilis abrupta*), and running buffalo clover (*Trifolium stoloniferum*). The Ozark hellbender (*Cryptobranchus alleganiensis bishopi*) is known to occur within Independence County and is listed as a candidate species. The bald eagle (*Haliaeetus leucocephalus*) is known to occur within Independence County, and is protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

Gray bat roost sites are nearly exclusively restricted to caves throughout the year. Forested areas along the banks of streams and lakes are important for feeding and the protection of young bats. Gray bats feed mostly upon flying insects. The Indiana bat hibernates in caves; maternity sites generally are behind loose bark of dead or dying trees or in tree cavities. This bat often feeds in riparian areas, upland forests, ponds, and fields. The pink mucket pearlymussel occupies shallow riffles and shoals in the White River. The running buffalo clover is a perennial herbaceous plant that grows in woodlands, floodplains, and streambanks where there is moderate periodic disturbance, such as mowing, trampling, or grazing. It is most often found in regions underlain with limestone or other calcareous bedrock. The Ozark hellbender can be found in rocky, clear creeks and rivers, usually where there are large shelter rocks. Crayfish are the most important food item, though fishes and other aquatic invertebrates are also eaten as well. The bald eagle frequents waterways, primarily feeding on fish and waterfowl. It typically migrates to the region in early winter and returns to northern breeding grounds in the spring.

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 – Replace Pedestrian Bridge on New Location

Under the Proposed Action Alternative, FEMA has determined the development of this site may affect, but is not likely to adversely affect any listed threatened or endangered species, the Ozark hellbender, or the bald eagle. In a letter dated October 27, 2010, the USFWS concluded that the project may affect, but is not likely to adversely affect the listed species, provided that recommended precautionary measures to avoid impacts to groundwater and sensitive/endangered species not previously known are implemented. These precautionary measures included a survey for karst features including caves, springs, sinkholes, and losing streams prior to initiating project activities. If such a feature is found, the applicant is to establish a 300-foot conservation zone around its location and contact the USFWS for an onsite karst evaluation. If caves are encountered during construction activities, the USFWS requests that work efforts cease within 300 feet of the opening. The opening should be adequately marked, fill material should not be placed in the cave, personnel should not enter the cave, and the USFWS should be contacted immediately. These recommended surveys should be completed prior to construction. USFWS

does not require notification of the results of the survey provided that none of the listed features are identified within the project area (Davidson, pers. comm.; Appendix A). The USFWS should be notified if any of these features are identified within the project area through surveying or during construction. BMPs should be properly installed and maintained throughout construction to minimize erosion. These BMPs should be maintained until the site is adequately re-vegetated to prevent soil loss and sedimentation in nearby streams (Appendix A).

4.7 CULTURAL RESOURCES

Section 106 of the National Historic Preservation Act (NHPA) 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 (ACHP) 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.

A FEMA Archaeologist and Architectural Historian, both qualified under their respective disciplines under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61), conducted an assessment of the project's potential to affect historic properties within the Area of Potential Effects (APE). The APE is the geographic area within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. For archaeological and above-ground resources, the APE consists of the proposed project footprint. As the proposed project site is immediately adjacent to the City's Wastewater Treatment Plant, FEMA determined that the project would not present any viewshed impacts to any historic buildings/structures.

On July 14, 2009, the University of Arkansas (UA) Archeological Survey conducted a cultural resources survey for the construction of a City of Batesville wastewater treatment facility and associated sewer line near the project area. This survey was necessary because the Arkansas Historic Preservation Program (AHPP) indentified four archeological sites and two historic structures within the vicinity of the wastewater treatment facility and sewer line project. The UA Archeological Survey concluded that the proposed water and sewer lines would not adversely affect cultural resources and no further work was recommended. The AHPP concluded that the wastewater treatment plant and sewer line would have no effect on historic properties.

Based upon the results of the UA archeological survey and because the survey area's location was less that 70 meters from the proposed new pedestrian bridge site, FEMA determined that there will be No Historic Properties Affected by the proposed pedestrian bridge.

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 – Replace Pedestrian Bridge on New Location

Under the Proposed Action Alternative, no impacts to archeological or cultural resources are anticipated. Consultation letters dated March 26, 2010, and April 22, 2010, were submitted to

the AHPP requesting review and concurrence with FEMA's determination of No Historic Properties Affected by the proposed pedestrian bridge. In a response dated April 22, 2010, the AHPP concurred with FEMA's determination that no historic properties would be affected by the proposed project (Appendix A). Should any historic or archeological materials be discovered during construction, all construction work on the site will be halted immediately and Independence County will notify Arkansas Department of Emergency Management and FEMA for further guidance. FEMA will consult with the AHPP or Tribal Historic Preservation Officer (THPO) and Tribes on any discoveries.

4.8 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; The proposed project does not include excavation to groundwater depth. Minor impacts to soils 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 will 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	Minor, short-term impacts to surface water are anticipated.	Appropriate BMPs, such as installing silt fences and revegetating bare soils, will minimize runoff; a SWPPP and a NPDES permit must be obtained prior to construction if necessary. The ADEQ has issued a STAA for the project.
Groundwater	No impacts to groundwater would occur because construction would not reach groundwater depth.	None

Affected Environment	Impacts	Mitigation
Floodplains	Although the project is in a floodplain, no impacts will occur.	There are no practicable alternatives to locating the proposed project outside of the floodplain. The Eight-Step Process Checklist for Floodplains has been prepared for this project (Appendix B). The Floodplain Administrator has indicated that the project appears acceptable to the floodplain management regulations. The City of Batesville must coordinate with the local floodplain administrator and obtain required permits prior to initiating work. All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files. The City of Batesville must prepare and provide Public Notice issued 15 days prior to the start of construction of any final decision where proposed floodplain or wetland project is the only practicable alternative.
Waters of the U.S. including Wetlands	No impacts to wetlands are anticipated. Minor impacts to Waters of the U.S. (Stillhouse Branch) would occur during bridge construction.	The USACE Little Rock District has indicated in the completed MPIS for this project that a Nationwide Permit (NWP) 14 is required for construction activities. Barrier fencing will be required to keep all construction out of adjacent wetland areas.
Transportation	Minor, short-term increases in the volume of construction traffic on roads would occur during the construction period.	Construction vehicles and equipment will be stored on-site during project construction and appropriate signage will be posted on affected roadways.
Environmental Justice	No impacts to environmental justice are anticipated. All populations would benefit from the Proposed Action.	None

Affected Environment	Impacts	Mitigation
Air Quality	Minor, short-term impacts to air quality would occur during the construction period as a result of diesel exhaust from construction equipment and particulate matter (dust) released from exposed soils.	Construction contractors will be required to water down construction areas when necessary; fuel-burning equipment running times will be kept to a minimum; engines will be properly maintained.
Noise	Minor, short-term impacts to noise levels would occur at the proposed project site during the construction period.	Construction will take place during normal business hours and equipment will meet all local, State, and Federal noise regulations.
Biological Resources/ Threatened and Endangered Species	Minor, permanent impacts to ¼ acre of riparian vegetation. No impacts to other biological resources or any federally protected species or their habitat are anticipated.	Appropriate BMPs, such as installing silt fences and revegetating bare soils, will 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 archaeological 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. 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 NHPA.
Safety	Minor, temporary impacts to the safety of the general public and construction personnel during construction activities are anticipated.	All construction activities will 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.
Hazardous Materials	No hazardous materials or waste impacts are anticipated. No hazardous substances were identified during a site visit or through review of federal and state databases, and the proposed work is not expected to generate hazardous materials.	Any hazardous materials discovered, generated, or used during construction will be disposed of and handled in accordance with applicable local, State, and Federal regulations.

Affected Environment	Impacts	Mitigation
Socioeconomic Resources	No adverse socioeconomic impacts would occur. No permanent jobs would be created or lost as a result of the proposed project; Temporary construction jobs may be created. All residents and businesses in the area are expected to benefit from the replacement pedestrian bridge on new location.	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 the construction of a replacement pedestrian bridge on new location which will bisect a narrow strip of mature hardwood floodplain forest. The pedestrian bridge is part of a short spur trial that connects to a large-scale walking trail proposed in the City of Batesville's comprehensive plan.

The original pedestrian bridge was in a remote location that limited its use to a few visitors. Therefore, no cumulative impacts are anticipated as a result of abandoning the original bridge. However, the propose location of the new pedestrian bridge, when combined with the walking trail, is anticipated to have a positive impact to the city's populace.

The large-scale walking trail, when it is built, would have similar impacts to the proposed action, removing small areas of vegetation in the floodplain. The large-scale walking trail would not likely have adverse impacts to geology, groundwater, floodplains, Waters of the U.S., including wetlands, migratory birds, threatened and endangered species, environmental justice, cultural resources, hazardous materials, or socioeconomic resources. Positive impacts to transportation and socioeconomic resources would be expected from the large-scale walking trail, and permanent minor impacts to soil and biological resources would be anticipated. During the construction period, short-term impacts to downstream surface water, transportation, air quality, noise and safety would be anticipated.

There are no other large-scale projects occurring or proposed by the Independence County in or near the project area. Cumulative impacts from the proposed project, when considered with the large-scale walking trail, are not anticipated to be significant.

SECTION SIX PUBLIC INVOLVEMENT

FEMA is the lead Federal agency for conducting the NEPA compliance process for the City of Batesville Pedestrian Bridge Project in Independence 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 City of Batesville will notify the public of the availability of the draft EA through publication of a public notice in the *Batesville Guard*. The draft EA will also be made available for public review at the Batesville City Hall, 500 E. Main Street, Batesville, AR 72501 and on FEMA's website (*http://www.fema.gov/plan/ehp/envdocuments/ea-region6.shtm*). FEMA will conduct a 30-day public comment period commencing on the initial date of publication of the public notice.

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 Department of Environmental Quality, North Little Rock, AR
- Arkansas Fish and Game Commission, Little Rock, AR
- Arkansas Historic Preservation Program Little Rock, AR
- City of Batesville Floodplain Administrator, City of Batesville, AR
- U.S. Army Corps of Engineers, Little Rock District, Little Rock, AR
- U.S. Fish and Wildlife Service, Conway, AR

In accordance with applicable local, State, and Federal regulations, the applicant will 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, environmental justice, cultural resources, hazardous materials, or socioeconomic resources are anticipated with the Proposed Action Alternative. Positive impacts to transportation and socioeconomic resources are expected. Permanent, minor impacts are anticipated to soil and biological resources. During the construction period, short-term, minor 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 City of Batesville proposed a replacement pedestrian bridge on new location. 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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Appendix A
Agency Coordination

Appendix B

Eight-Step Process Checklist for Floodplains

Appendix C
Photograph Log