

FINAL

**ENVIRONMENTAL ASSESSMENT FOR THE
CONSTRUCTION AND OPERATION OF AN ARMED FORCES
RESERVE CENTER AND IMPLEMENTATION OF BRAC 2005
REALIGNMENT ACTIONS AT
ARKADELPHIA, ARKANSAS**



Prepared for:

90th Regional Readiness Command

Prepared by:

**U.S. Army Corps of Engineers
Mobile District
P.O. Box 2288
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July 2008

**FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT FOR THE
CONSTRUCTION AND OPERATION OF AN ARMED FORCES RESERVE CENTER
AND IMPLEMENTATION OF BRAC 2005 REALIGNMENT ACTIONS AT
ARKADELPHIA, ARKANSAS**

The Defense Base Closure and Realignment (BRAC) Commission, in response to the Defense Base Closure and Realignment Act of 1990, as amended, recommended closure of the U.S. Army Reserve Center (USARC), Arkadelphia, Arkansas and re-location of units into a new Armed Forces Reserve Center (AFRC) in Arkadelphia, if the Army is able to acquire suitable land for the construction of the facilities.

Pursuant to the Council on Environmental Quality regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508) implementing the procedural provisions of the National Environmental Policy Act (NEPA), 42 U.S. Code Section 4321 et seq., as amended; 32 CFR Part 651 (Environmental Analysis of Army Actions), the U.S. Army Corps of Engineers, Mobile District, has prepared an Environmental Assessment (EA) and Finding of No Significant Impact (FNSI), which addresses the proposed construction and operation of the AFRC in Arkadelphia.

Proposed Action

The proposed action is to construct and operate an AFRC to accommodate the closure of the Arkadelphia USARC and to relocate Army Reserve and National Guard units to the new AFRC. The 232-personnel AFRC would include administrative, assembly, educational, storage, and parking space large enough to accommodate five Army Reserve units and one Army National Guard unit. The AFRC would include administrative, assembly, educational, storage, special training, library, and support areas with a total of 69,437 square feet of building space. All other appurtenant infrastructure (e.g., plumbing, electrical systems, heating, ventilation, and air-conditions systems, and anti-terrorism/force protection systems) would also be provided. The total area expected to be disturbed is approximately 10 acres, of which approximately 4 acres would be covered by impervious surfaces and the remaining 6 acres landscaped. The AFRC would be located at the intersection of State Route (SR) 26 Spur and McClellan Boulevard east of Interstate 30 (I-30), within a vacant parcel of the Clark County Industrial Park that is currently used for agricultural purposes.

Alternatives Considered

General siting criteria include consideration of compatibility between the functions to be performed and the land use designation for the site, adequacy of the site for the function required, proximity to related activities, distance from incompatible activities, availability and capacity of roads, efficient use of property, development density, potential future mission requirements, and special site characteristics. Initial screening criteria require that the site is a minimum size of 10 acres and located in or around Arkadelphia. Eleven sites were initially evaluated in the Arkadelphia area in January 2007 for their suitability for the AFRC. It was determined that two of the sites evaluated were considered suitable for the construction of the AFRC because they fully met specific evaluation criteria such as proximity to utilities and police and fire service, visibility to the community, accessibility, and availability of the land. The remaining sites were eliminated from further consideration due to issues associated with large amounts of earthwork needed due to topography, lack of adequate access, little to no visibility to the community, or their location within the 100-year floodplain.

The originally preferred site is located just north of Arkadelphia on Old Military Road, west of I-30, within a larger parcel that is currently used for agricultural purposes. The proposed action site is located south of Arkadelphia, east of I-30, and is also in agricultural use. Although both sites adhere to the general and specific siting criteria, after further investigation of the originally preferred site, it was determined that it contained deeply buried cultural material that would potentially be disturbed during AFRC construction. Therefore, due to the potential impacts on highly sensitive resources, the originally preferred site was dismissed from further evaluation. This project has been coordinated with the installation physical security plan and all AT/FP measures would be included. Besides the proposed action, no additional alternative siting schemes are evaluated in detail in this EA.

The no action alternative was carried forward throughout the EA to serve as a baseline for comparison to the proposed action. No other alternatives, including scheduling, leasing from commercial/private entities, and renovations of buildings at the current USARC were considered viable.

Factors Considered In Determining That No Environmental Impact Statement is Required

The proposed action would result in the permanent conversion of 8.5 acres of leased agricultural and 1.5 acres of wooded lands dominated by honey locust, persimmon, and American hornbeam to an AFRC. However, the parcel is located within the Clark County Industrial Park, and is zoned for commercial and industrial uses. A site specific Storm Water Pollution Prevention Plan (SWPPP), a Spill Prevention Control and Countermeasures Plan, and the implementation of Best Management Practices (BMPs) would ensure that any pollutants generated or handled as a result of construction and operation would be minimized. No sensitive or rare vegetation communities or Federal or state protected species would be affected.

A potentially jurisdictional wetland, 0.69 acres in size, is located within the project area and would be filled as a result of the construction of an AFRC. If the wetland is determined to be jurisdictional, Section 404/401 permits would be acquired, and if required, mitigation implemented as part of the Section 404/401 permitting process prior to construction activities.

Temporary increases in noise would be expected during construction. However, permanent increases in noise levels resulting from operation would be minimal. Most of the increased traffic associated with the new AFRC would occur on weekends, when other traffic associated with the Industrial Park use is reduced. Transportation routes, such as SR 26 and SR 26 Spur, provide access to the Industrial Park from I-30 and U.S. Highway 67, and have an adequate level of service to accommodate the additional traffic from the AFRC. Furthermore, the number of vehicles accessing the new AFRC would be the same as currently access the existing USARC. Slight benefits for local and regional employment and personal income would be expected during construction of the AFRC. Operation of the AFRC would not overburden utilities providers, and would not require the extension of utilities.

No impacts would occur on Federal or state protected species, prime farmland soils, cultural resources, water quality or supply, or hazardous waste facilities.

The construction and operation of a new AFRC, in combination with other projects and developments in the Arkadelphia area, would not result in substantial cumulative effects on individual resources or ecosystems. The site is situated within the Clark County Industrial Park, which covers 313 acres and is developed for industry with sites from 4.5 acres to 26.5 acres.

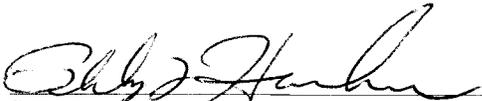
The park has a sanitary waste disposal system, a 500,000 gallon water storage tank, natural gas, and is served by a 115 kilovolt electrical transmission line. All utilities are available to accommodate industry seeking to locate in the Clark County Industrial Park, including the AFRC. Construction and operation of the AFRC would comply with all Restrictive Covenants of the Clark County Industrial Park. As part of planned developments, the construction and operation of the AFRC would have beneficial cumulative impacts on sustainable growth in Clark County and the Arkadelphia area.

Conclusions

Based on information gathered and presented in the EA, it has been determined that the Proposed Action would have no significant direct, indirect or cumulative adverse impacts on the quality of the natural and human environment. Consequently, an Environmental Impact Statement is not required and will not be prepared.

Public Comment

Interested parties were invited to review and comment on the EA and draft FNSI for a period of 30 days beginning on 23 July 2008. A notice of availability was published in the *Arkadelphia Daily Siftings Herald*. Copies of the EA and draft FNSI were made available for review on the internet at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm and at the Clark County Library, 609 Caddo Street, Arkadelphia, Arkansas.


Philip L. Hanrahan, Brigadier General
U.S. Army Reserve, Commanding

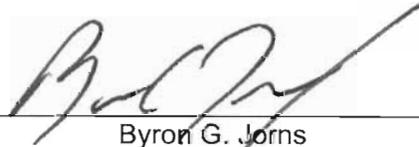
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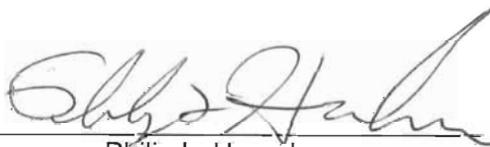
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U.S. Army Reserve, Commanding

LEAD AGENCY: Mobile District, U.S. Army Corps of Engineers

TITLE OF PROPOSED ACTION: Environmental Assessment for the Construction and Operation of an Armed Forces Reserve Center and Implementation of BRAC 2005 Realignment Actions at Arkadelphia, Arkansas

AFFECTED JURISDICTION: Clark County, Arkansas

PREPARED BY: Byron G. Jorns, U.S. Army Corps of Engineers, Mobile District, Commanding

TECHNICAL ASSISTANCE FROM: Gulf South Research Corporation

APPROVED BY: Philip L. Hanrahan, Brigadier General, U.S. Army Reserve, Commanding

ABSTRACT: This Environmental Assessment (EA) addresses the potential effects of the proposed construction and operation of the Armed Forces Reserve Center (AFRC) at Arkadelphia, Arkansas, as proposed by the Defense Base Closure and Realignment Commission's recommendation. The proposed action would construct the AFRC on 10 acres of agricultural land near Arkadelphia, Arkansas. The AFRC would include administrative, assembly, educational, storage, special training, library, and support areas with a total of 69,437 square feet of building space. Temporary or insignificant impacts on air quality and noise would occur during construction activities. Impacts on wetlands, water quality, noise, transportation, and aesthetics would be minimal. No extension of utilities is necessary because the proposed action site is located on a parcel within the Clark County Industrial Park, and all utilities are readily available. An alternative location (the originally preferred site) was also assessed, but was dismissed from further evaluation after initial surveys discovered deeply buried cultural material that could be impacted from construction of the AFRC.

REVIEW PERIOD: The EA and draft Finding of No Significant Impact are available for review for a period of 30 days. Comments should be addressed to Mr. James Wheeler II, Chief, Environmental Division, 90th Regional Readiness Command, 8000 Camp Robinson Road, North Little Rock, AR 72118-2205 or by phone at 501-771-7992 and FAX at 501-771-7932. The EA is available for review at the Clark County Library, 609 Caddo Street, Arkadelphia, Arkansas.

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EXECUTIVE SUMMARY
ENVIRONMENTAL ASSESSMENT FOR THE
CONSTRUCTION AND OPERATION OF AN ARMED FORCES RESERVE CENTER AND
BRAC 2005 REALIGNMENT ACTIONS AT ARKADELPHIA, ARKANSAS

Introduction: In accordance with the National Environmental Policy Act of 1969, as amended, the United States (U.S.) Army Corps of Engineers, Mobile District has prepared this Environmental Assessment (EA) for the construction and operation of an Armed Forces Reserve Center (AFRC) in Arkadelphia, Clark County, Arkansas. This EA discusses the potential environmental effects of the proposed construction and operation of the AFRC on the human and natural environment.

Background/Setting: The current Arkadelphia U.S. Army Reserve Center (USARC) was constructed in 1978 and is overcrowded with a utilization rate of 136 percent. The Arkadelphia USARC consists of four buildings located on 2.83 acres of land in proximity to the airport, railroad and highway. The Defense Base Closure and Realignment (BRAC) Commission recommended closure of the USARC, Arkadelphia, Arkansas and re-location of units into a new AFRC in Arkadelphia, if the Army is able to acquire suitable land for the construction of the facilities. To enable implementation of this recommendation, the Army proposes to construct the facilities necessary to support five Army Reserve Units and one Army National Guard Unit.

Proposed Action: The construction of the AFRC at Arkadelphia is required by the Defense Base Closure and Realignment Act of 1990, as amended, and by the recommendations made by the BRAC Commission. The proposed action for Arkadelphia is to construct and operate an AFRC to accommodate the closure of the Arkadelphia USARC and to relocate Army Reserve and National Guard units and their equipment and vehicles (such as High Mobility Multipurpose Wheeled Vehicles) from the USARC to the new AFRC. The new 232-personnel AFRC would include administrative, assembly, educational, storage, and parking space large enough to accommodate five Army Reserve units and one Army National Guard unit. Buildings for the AFRC would be of permanent construction with associated parking areas, sidewalks, and landscaping. A 55,070 square feet (SF) administrative and assembly building would be the primary building at the new AFRC. A 7,300 SF multi-use classroom building, a 1,065 SF Organization Unit Storage building, and a 6,002 SF vehicle maintenance facility would also be constructed. All other appurtenant infrastructure (e.g., plumbing, electrical systems, heating,

ventilation, and air-conditions systems, and anti-terrorism/force protection systems) would also be provided. The total area expected to be disturbed is approximately 10 acres, of which approximately 4 acres would be covered by impervious surfaces and 6 acres would be landscaped. The proposed action is located at the intersection of State Route 26 Spur and McClellan Boulevard east of Interstate 30 (I-30), within a vacant parcel of the Clark County Industrial Park that is currently used for agricultural purposes. The 10-acre parcel would either be purchased or leased by the Army Reserve from the Clark County Industrial Park.

Alternatives: Approximately 10 acres of land is needed to accommodate the construction of new facilities. Eleven sites were initially evaluated in the vicinity of Arkadelphia for their suitability for the AFRC. It was determined that two of the sites (the proposed action site and the originally preferred site) were considered suitable for the construction of the AFRC in the vicinity of Arkadelphia because they fully met the evaluation criteria, such as proximity to utilities and police and fire service, visibility to the community, accessibility, and availability of the land. However the originally preferred site, which is located on Old Military Road west of I-30, was evaluated in more detail including surveys for the presence of cultural resources, and it was determined that the site contained deeply buried cultural material that could be disturbed from construction of an AFRC. Therefore, because of the potential impacts on these highly sensitive resources, the originally preferred site was eliminated from further evaluation.

Environmental Consequences: The proposed action would result in the permanent conversion of 10 acres of leased agricultural field and forested land to an AFRC. However, the parcel is located within the Clark County Industrial Park, and is zoned for commercial and industrial uses. A site specific Storm Water Pollution Prevention Plan (SWPPP), a Spill Prevention Control and Countermeasures Plan, and the implementation of Best Management Practices (BMPs) would ensure that any pollutants generated or handled as a result of construction and operation would be minimized. No sensitive or rare vegetation communities or Federal or state protected species would be affected. A potentially jurisdictional wetland, 0.69 acres in size, is located within the project area and would be filled as a result of the construction of an AFRC. Approximately 1.5 acre of wooded lands, dominated by honey locust, persimmon, and American hornbeam would be removed as a result of the project. Temporary increases in noise would be expected during construction. However, permanent increases in noise levels resulting from operation would be minimal. Most of the increased traffic associated with the new AFRC would occur on weekends, when other traffic is typically reduced. Slight benefits for local

and regional employment and personal income would be expected during construction of the AFRC. Operation of the AFRC would not overburden utilities providers, and would not require the extension of utilities.

Environmental Protective Measures: A SWPPP and Notice of Intent will be prepared and submitted prior to construction. The SWPPP will identify BMPs to be implemented for erosion and sedimentation control during construction. All temporarily disturbed sites will be re-seeded as soon as practicable after completion of the construction activities to control erosion and sedimentation. In accordance with Section 7(a)(1) of the Endangered Species Act, native plant seeds shall be used for re-seeding activities in those areas that will not be landscaped or routinely maintained. If straw bales are used, they will be free of weed seed to avoid introduction or expansion of invasive or noxious weeds. Wetting solutions, including water, will be applied to disturbed soils within the construction site to control fugitive dust.

If the wetland is determined to be jurisdictional, Section 404/401 permits will be acquired prior to the placement of fill in the wetland during construction activities. The Migratory Bird Treaty Act will be considered in planning for construction activities.

All construction equipment and material will be properly maintained and stored to reduce air emissions and avoid potential spills of hazardous materials.

Conclusion: The data presented in the EA document that the best available site for the proposed construction and operation of the AFRC is at the proposed action location, and that development of this site would result in insignificant adverse impacts on the area's human and natural environment.

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	iii
1.0 PURPOSE, NEED, AND SCOPE	1-1
1.1 Introduction	1-1
1.2 Purpose and Need	1-1
1.2.1 Base Realignment and Closure.....	1-3
1.2.2 Installation Sustainability	1-3
1.3 Scope	1-3
1.4 Public Involvement	1-4
1.5 Regulatory Framework	1-5
2.0 PROPOSED ACTION	2-1
2.1 Introduction	2-1
2.2 Proposed Implementation	2-1
2.2.1 Force Structure.....	2-2
2.2.2 Garrison Facilities.....	2-2
2.2.3 Training Facilities	2-2
2.2.4 Weapon Systems	2-3
2.2.5 Schedule	2-3
3.0 ALTERNATIVES.....	3-1
3.1 Introduction	3-1
3.2 Alternatives to the Proposed Action	3-1
3.2.1 Expansion of Existing Space.....	3-1
3.2.2 Alternate Sites at Arkadelphia	3-1
3.2.3 Alternate Schedules	3-6
3.3 No Action Alternative.....	3-7
4.0 AFFECTED ENVIRONMENT AND CONSEQUENCES	4-1
4.1 Introduction	4-1
4.2 Water Resources	4-2
4.2.1 Affected Environment	4-2
4.2.2 Environmental Consequences.....	4-4
4.2.2.1 Proposed Action	4-4
4.2.2.2 No Action	4-4
4.3 Soils	4-4
4.3.1 Affected Environment	4-4
4.3.2 Environmental Consequences.....	4-6
4.3.2.1 Proposed Action	4-6
4.3.2.2 No Action	4-6
4.4 Air Quality.....	4-6
4.4.1 Affected Environment	4-6
4.4.2 Environmental Consequences.....	4-7
4.4.2.1 Proposed Action	4-7
4.4.2.2 No Action Alternative	4-8
4.5 Biological Resources.....	4-8
4.5.1 Affected Environment	4-8
4.5.1.1 Federally Protected Species.....	4-9
4.5.1.2 State Protection	4-10

4.5.1.3	Wetlands	4-10
4.5.2	Environmental Consequences.....	4-12
4.5.2.1	Proposed Action	4-12
4.5.2.2	No Action	4-12
4.6	Land Use.....	4-12
4.6.1	Affected Environment	4-12
4.6.2	Environmental Consequences.....	4-13
4.6.2.1	Proposed Action	4-13
4.6.2.2	No Action	4-13
4.7	Transportation.....	4-13
4.7.1	Affected Environment	4-13
4.7.2	Environmental Consequences.....	4-13
4.7.2.1	Proposed Action	4-13
4.7.2.2	No Action	4-15
4.8	Utilities.....	4-15
4.8.1	Affected Environment	4-15
4.8.1.1	Potable Water Supply	4-15
4.8.1.2	Wastewater System.....	4-15
4.8.1.3	Electric Supply	4-16
4.8.2	Environmental Consequences.....	4-16
4.8.2.1	Proposed Action	4-16
4.8.2.2	No Action	4-16
4.9	Noise.....	4-16
4.9.1	Affected Environment	4-16
4.9.2	Environmental Consequences.....	4-17
4.9.2.1	Proposed Action	4-17
4.9.2.2	No Action	4-18
4.10	Hazardous and Toxic Substances	4-18
4.10.1	Affected Environment	4-18
4.10.2	Environmental Consequences.....	4-18
4.10.2.1	Proposed Action	4-18
4.10.2.2	No Action	4-19
4.11	Aesthetics and Visual Resources.....	4-19
4.11.1	Affected Environment	4-19
4.11.2	Environmental Consequences.....	4-19
4.11.2.1	Proposed Action	4-19
4.11.2.2	No Action	4-20
4.12	Socioeconomic Resources.....	4-20
4.12.1	Affected Environment	4-20
4.12.2	Environmental Consequences.....	4-21
4.12.2.1	Proposed Action	4-21
4.12.2.2	No Action	4-22
4.13	Cultural Resources.....	4-22
4.13.1	Affected Environment	4-22
4.13.1.1	Cultural Overview	4-22
4.13.2	Environmental Consequences.....	4-25
4.13.2.1	Proposed Action	4-25
4.13.2.2	No Action	4-26
4.14	Cumulative Effects Summary	4-26
4.14.1	Proposed Action	4-27
4.14.2	No Action.....	4-27

4.15	Mitigation.....	4-28
4.15.1	Water.....	4-28
4.15.2	Soil.....	4-28
4.15.3	Air Quality.....	4-29
4.15.4	Vegetation and Wildlife.....	4-29
4.15.5	Hazardous and Toxic Substances.....	4-29
4.15.6	Cultural Resources.....	4-30
5.0	FINDINGS AND CONCLUSIONS.....	5-1
5.1	Findings.....	5-1
5.1.1	Consequences of the Proposed Action.....	5-1
5.2	Conclusions.....	5-1
6.0	LIST OF PREPARERS.....	6-1
7.0	DISTRIBUTION LIST.....	7-1
8.0	REFERENCES.....	8-1
9.0	PERSONS CONSULTED.....	9-1
10.0	ACRONYMS AND ABBREVIATIONS.....	10-1

LIST OF FIGURES

Figure 1-1.	Vicinity Map.....	1-2
Figure 3-1.	Arkadelphia Armed Forces Reserve Center (AFRC) Site Map.....	3-3
Figure 3-2.	Footprint of Originally Preferred Site and Location of Barkman Mound.....	3-4
Figure 3-3.	Footprint of Proposed AFRC Location.....	3-5
Figure 4-1.	Water Resources near the Proposed Action.....	4-3
Figure 4-2.	Soils within the Proposed Action.....	4-5
Figure 4-3.	Wetlands within the Proposed Action.....	4-11
Figure 4-4.	Transportation Resources near the Proposed Action.....	4-14

LIST OF TABLES

Table 1-1.	Summary of Relevant Regulations Including Potential Permits or Licensing Requirements.....	1-6
Table 2-1.	Proposed Construction Projects.....	2-2
Table 3-1.	Sites Evaluated for the Location of the Arkadelphia AFRC.....	3-2
Table 3-2.	Tentative Dates for Completion of Major Items Associated with Construction of an AFRC at Arkadelphia.....	3-6
Table 4-1.	Total Air Emissions (tons/year) from Construction Activities.....	4-7
Table 4-2.	Federally Listed and Proposed Species for Clark County, Arkansas.....	4-9
Table 4-3.	A-Weighted (dBA) Sound Levels of Typical Noise Environments.....	4-17
Table 4-4.	Housing Units.....	4-21
Table 5-1.	Summary Matrix of Potential Impacts.....	5-2

LIST OF PHOTOGRAPHS

Photograph 3-1. Originally Preferred Site under Agricultural Production.....3-2
Photograph 3-2. Proposed Action Site looking towards the Intersection of Highway 26
Spur and McClellan Boulevard3-6

LIST OF APPENDICES

Appendix A. Air Emissions Calculations
Appendix B. Correspondence
Appendix C. Economic Impact Forecast System Model

SECTION 1.0
PURPOSE, NEED, AND SCOPE



1.0 PURPOSE, NEED, AND SCOPE

1.1 INTRODUCTION

On September 8, 2005, the Defense Base Realignment and Closure (BRAC) Commission recommended closure of the United States Army Reserve Center (USARC), Arkadelphia, Arkansas and relocation of units into a new Armed Forces Reserve Center (AFRC) in Arkadelphia, if the Army is able to acquire suitable land for the construction of the facilities. The Commission's recommendations were approved by the President on September 23, 2005, and forwarded to Congress. The Congress did not alter any of the BRAC Commission's recommendations, and on November 9, 2005, the recommendations became law. The BRAC Commission's recommendations must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law [PL] 101-510), as amended.

The current Arkadelphia USARC was constructed in 1978, is occupied by four Army Reserve units with a utilization rate of 136 percent, and is located on 2.83 acres of land with limited expansion capabilities due to its proximity to an airport, railroad and highway. The BRAC Commission recommends the closure of the Arkadelphia USARC and relocation to a new Armed Forces Reserve Center (AFRC) in Arkadelphia, if the Army is able to acquire suitable land for the construction of the facilities. To enable implementation of this recommendation, the Army proposes to provide necessary facilities to support five Army Reserve Units and one Army National Guard Unit. This environmental assessment (EA) analyzes and documents environmental effects associated with the Army's proposed action at Arkadelphia (Figure 1-1). Details on the proposed action are presented later in Section 2.

1.2 PURPOSE AND NEED

The purpose of the proposed action is to implement the BRAC Commission's recommendation pertaining to the closure of the Arkadelphia USARC and construction of a new AFRC in Arkadelphia, Arkansas.

The need for the proposed action is to improve the ability of the U.S. to respond rapidly to challenges of the 21st century. The Army is legally bound to defend the U.S. and its territories, support National policies and objectives, and defeat nations responsible for aggression that

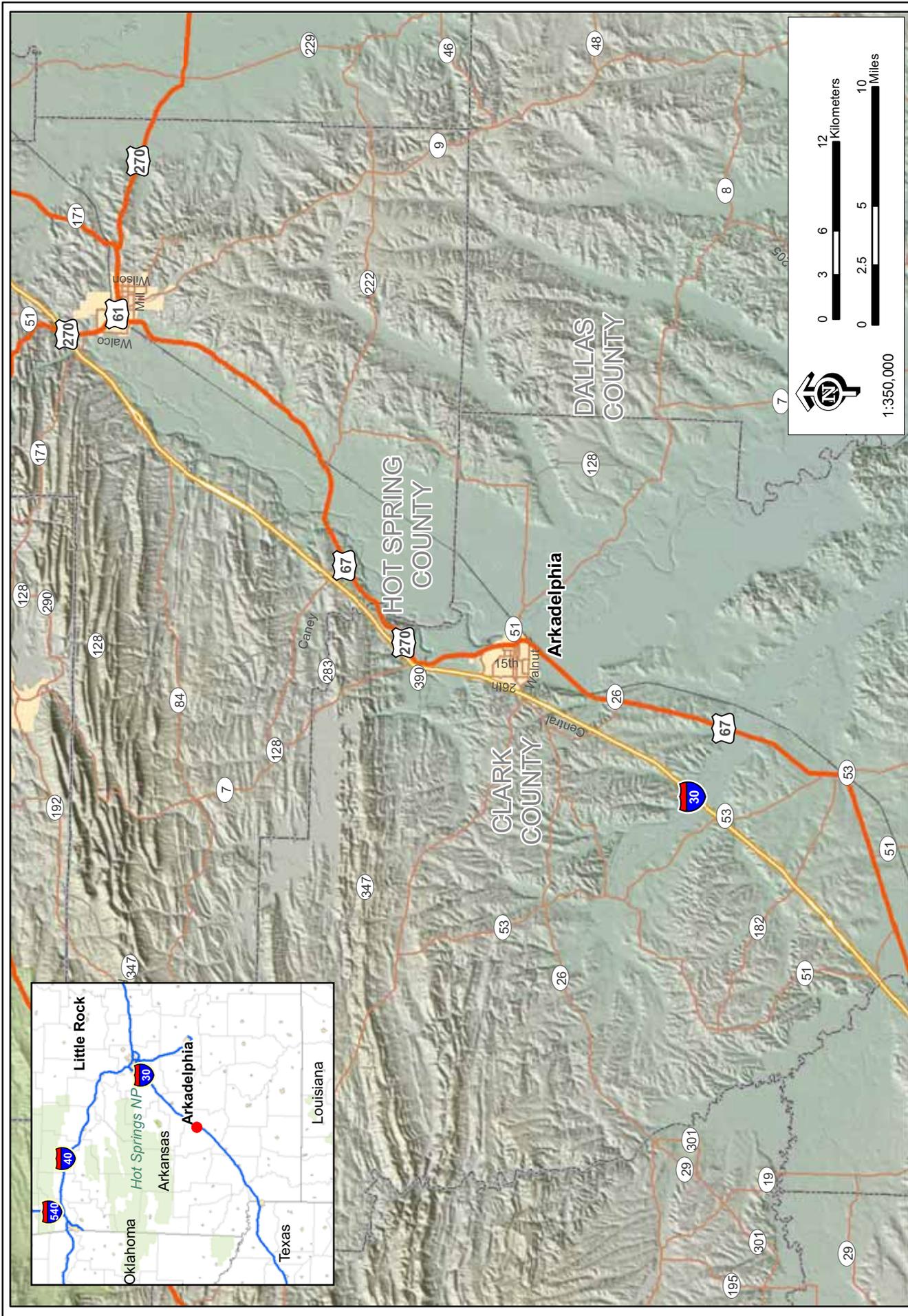


Figure 1-1: Vicinity Map

endangers the peace and security of the U.S. To carry out these tasks, the Army must adapt to changes in world conditions and must improve its capabilities to respond to a variety of circumstances across the full spectrum of military operations. The following paragraphs discuss four major initiatives that contribute to the Army's need for the proposed action.

1.2.1 Base Realignment and Closure

In previous rounds of BRAC, the explicit goal was to save money and downsize the military in order to reap a "peace dividend." In the 2005 BRAC round, the Department of Defense (DoD) sought to reorganize its installation infrastructure to support its forces and increase operational readiness. Thus, the 2005 BRAC round represents more than cost savings. It supports advancing the goals of transformation, improving military capabilities, and enhancing military value. The Army is required to carry out the BRAC recommendations at Arkadelphia in order to achieve the objectives for which Congress established the BRAC process.

1.2.2 Installation Sustainability

On October 1, 2004, the Secretary of the Army and the Chief of Staff issued *The Army Strategy for the Environment*. The strategy focuses on the interrelationships of mission, environment, and community. A sustainable installation simultaneously meets current and future mission requirements, safeguards human health, improves quality of life, and enhances the natural environment. A sustained natural environment is necessary to allow the Army to train and maintain military readiness.

1.3 SCOPE

This EA has been developed in accordance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations issued by the President's Council on Environmental Quality (CEQ) and the Army. Its purpose is to inform decision makers and the public of the likely environmental consequences of the proposed action and alternatives.

This EA identifies, documents, and evaluates environmental effects of the construction and operation of the AFRC at Arkadelphia, Arkansas to accommodate the relocation of Army Reserve and National Guard units. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, historians, and military technicians has analyzed the proposed action and alternatives in light of existing conditions and has

identified relevant beneficial and adverse effects associated with the action. The proposed action is described in Section 2.0, and alternatives, including the no action alternative, are described in Section 3.0. Existing conditions, considered to be the “baseline” conditions, are described in Section 4.0, Affected Environment and Environmental Consequences. The expected effects of the proposed action and alternatives, also described in Section 4.0, are presented immediately following the description of baseline conditions for each environmental resource addressed in the EA. Section 4.0 also addresses the potential for cumulative effects, and mitigation measures are identified where appropriate.

The Defense Base Closure and Realignment Act of 1990 specifies that the NEPA does not apply to actions of the President, the Commission, or the DoD, except “(i) during the process of property disposal, and (ii) during the process of relocating functions from a military installation being closed or realigned to another military installation after the receiving installation has been selected but before the functions are relocated” (Sec. 2905(c)(2)(A), PL 101-510, as amended). The law further specifies that in applying the provisions of the NEPA to the process, the Secretary of Defense and the secretaries of the military departments concerned do not have to consider “(i) the need for closing or realigning the military installation which has been recommended for closure or realignment by the Commission, (ii) the need for transferring functions to any military installation which has been selected as the receiving installation, or (iii) military installations alternative to those recommended or selected” (Sec. 2905(c)(2)(B)). The Commission’s deliberation and decision, as well as the need for closing or realigning a military installation, are exempt from the NEPA. Accordingly, this EA does not address the need for realignment.

1.4 PUBLIC INVOLVEMENT

The Army invites public participation in the NEPA process. Consideration of the views and information of all interested persons promotes open communication and enables better decision-making. All agencies, organizations, and members of the public having a potential interest in the proposed action, including minority, low-income, disadvantaged, and Native American groups, are urged to participate in the decision-making process.

Public participation opportunities with respect to this EA and decision-making on the proposed action are guided by 32 Code of the Federal Register (CFR) Part 651. Upon completion, the EA

will be made available to the public for 30 days, along with a draft Finding of No Significant Impact (FNSI). At the end of the 30-day public review period, the Army will consider any comments submitted by individuals, agencies, or organizations on the proposed action, the EA, or draft FNSI. As appropriate, the Army may then execute the FNSI and proceed with implementation of the proposed action. If it is determined prior to issuance of a final FNSI that implementation of the proposed action would result in significant impacts, the Army will publish in the *Federal Register* a notice of intent to prepare an environmental impact statement, commit to mitigation actions sufficient to reduce impacts below significance levels, or not take the action.

Throughout this process, the public may obtain information on the status and progress of the proposed action and the EA through the 90th Regional Readiness Command (RRC) by calling Mr. James Wheeler II, Chief, Environmental Division, at (501) 771-7992.

1.5 REGULATORY FRAMEWORK

A decision on whether to proceed with the Proposed Action rests on numerous factors, such as mission requirements, schedule, availability of funding, and environmental considerations. In addressing environmental considerations, U.S. Army Corps of Engineers (USACE) Mobile District and the 90th RRC are guided by relevant statutes (and their implementing regulations) and Executive Orders (EO) that establish standards and provide guidance on environmental and natural resources management and planning. Construction and operation of the AFRC requires compliance with the Federal regulations and EOs presented below in Table 1-1. The current compliance status is also presented.

Table 1-1. Summary of Relevant Regulations Including Potential Permits or Licensing Requirements

Issue	Action Requiring Permit, Approval, or Review	Agency	Required Permit, License, Compliance, or Review	Status of Compliance with Relevant Laws and Regulations
FEDERAL				
Sound/ Noise	Noise Control Act of 1972 (42 United States Code [USC] 4901 et seq.), as amended by Quiet Communities of 1978 (PL 95-609)	U.S. Environmental Protection Agency (EPA)	Compliance with surface carrier noise emissions	Full compliance will be achieved upon implementation of construction activities
Air	Clean Air Act and amendments of 1990 (42 USC 7401-7671q) 40 CFR 50, 52, 93.153(b)	EPA	Compliance with National Ambient Air Quality Standards and emission limits and/or reduction measures	Full compliance; emissions will be below <i>de minimis</i> thresholds
Water	CWA of 1977 (33 USC 1342) 40 CFR 122	EPA	Section 402(b) National Pollutant Discharge Elimination System General Permit for Stormwater Discharges for Construction Activities-Stormwater Pollution Prevention Plan	Storm Water Pollution Prevention Plan and Notice of Intent will be prepared prior to construction. Full compliance will be achieved prior to implementation of construction activities
	EO 11988 (<i>Floodplain Management</i>), as amended by Executive Order 12608	Water Resources Council, Federal Emergency Management Agency, and CEQ	Compliance	Full compliance
	EO 11990 (<i>Protection of Wetlands</i>), as amended by EO 12608	U.S. Army Corps of Engineers (USACE) and U.S. Fish and Wildlife Service (USFWS)	Compliance	Full compliance
	CWA of 1977 (33 USC 1341 et seq.)	USACE and Arkansas Department of Environmental Quality	Section 401/404 Permit	If wetlands would be filled then Section 401/404 permits would be required for proposed fill activities.
	Coastal Zone Management Act of 1972 (16 USC 1456[c]) Section 307	National Oceanic and Atmospheric Administration	Compliance	Arkadelphia is not within the coastal zone, full compliance
Soils	Resource Conservation and Recovery Act of 1976 (42 USC 6901-6992k), as amended by Hazardous and Solid Waste Amendments of 1984 (PL 98-616; 98 Stat. 3221)	EPA	Proper management and, in some cases, permit for remediation	Full compliance will be achieved prior to implementation of construction activities

Table 1-1, continued

Issue	Action Requiring Permit, Approval, or Review	Agency	Required Permit, License, Compliance, or Review	Status of Compliance with Relevant Laws and Regulations
Soils, cont'd	Comprehensive, Environmental Response, Compensation, Liability Act of 1980 (42 USC 9601-9675), as amended by Emergency Planning and Community Right-To-Know-Act of 1986 (42 USC 11001 et seq.) Release or threatened release of a hazardous substance	EPA	Development of emergency response plans, notification, and cleanup	Full compliance
	Farmland Protection Policy Act of 1981 (7 USC 4201 et seq.) 7 CFR 657-658 Prime and unique farmlands	Natural Resource Conservation Service (NRCS)	NRCS determination via Form AD-1006	Form AD-1006 was submitted to the NRCS on June 26, 2007
Natural Resources	Endangered Species Act of 1973, as amended (16 USC 1531-1544)	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, develop mitigation measures	Full compliance since no protected species would be impacted
	Migratory Bird Treaty Act of 1918	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, develop mitigation measures	The Migratory Bird Treaty Act would be considered during planning for construction activities.
	Bald and Golden Eagle Act of 1940, as amended	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, obtain permit	No effects to bald or golden eagles; full compliance
Health and Safety	Occupational Safety and Health Act of 1970	Occupational Safety and Health Administration	Compliance with guidelines including Material Safety Data Sheets	Full compliance will be achieved upon implementation of construction activities
Cultural/ Archaeological	National Historic Preservation Act of 1966	Advisory Council on Historic Preservation through State Historic Preservation Officer	Section 106 Consultation	Full compliance will be achieved upon implementation of construction activities
	Archaeological Resources Protection Act of 1979	Affected land-managing agency	Permits to survey and excavate/ remove archaeological resources on Federal lands; Native American tribes with interests in resources must be consulted prior to issue of permits	Full compliance

Table 1-1, continued

Issue	Action Requiring Permit, Approval, or Review	Agency	Required Permit, License, Compliance, or Review	Status of Compliance with Relevant Laws and Regulations
Cultural/ Archaeological, continued	EO 13175 (<i>Consultation and Coordination with Indian Tribal Governments</i>)	Bureau of Indian Affairs	Coordinate directly with Tribes claiming cultural affinity to project areas	Full compliance
Social/ Economic	EO 12898 (<i>Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations</i>) of 1994	EPA	Compliance	Full compliance since no minority or low income populations would be affected
	EO 13045 (<i>Protection of Children from Environmental Health Risks and Safety Risks</i>)	EPA	Compliance	Full compliance since no children would be exposed to the construction activities
	EO 13101 (<i>Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition</i>)	EPA	Compliance	Full compliance
	EO 13123 (<i>Greening the Government Through Efficient Energy Management</i>)	EPA	Compliance	Full compliance
	EO 13148 (<i>Greening the Government Through Leadership in Environmental Management</i>)	EPA	Compliance	Full compliance

These authorities are addressed in various sections throughout this EA when relevant to particular environmental resources and conditions. The full text of the laws, regulations, and EOs is available on the Defense Environmental Network & Information Exchange Web site at <http://www.denix.osd.mil>.

SECTION 2.0
PROPOSED ACTION

2.0 PROPOSED ACTION

2.1 INTRODUCTION

This section describes the Army's preferred alternative for carrying out the BRAC Commission's recommendations. The BRAC Commission approved the following recommendation concerning Arkadelphia:

“Close the United States Army Reserve Center, Arkadelphia, AR and relocate units into a new Armed Forces Reserve Center in Arkadelphia, AR if the Army is able to acquire suitable land for the construction of the facilities. The new AFRC shall have the capability to accommodate Arkansas National Guard units from the Arkansas National Guard Readiness Center, Arkadelphia if the State of Arkansas decides to relocate those units.”

Therefore, the proposed action for Arkadelphia is to construct and operate an AFRC to accommodate the closure of the Arkadelphia USARC and the associated relocation of the Army Reserve and National Guard units. This relocation action, beginning in Fiscal Year 2008, supports the Army modular force and transformation.

2.2 PROPOSED IMPLEMENTATION

The new 232-member AFRC would include administrative, assembly, educational, storage, and parking facilities to accommodate five Army Reserve units and one Army National Guard unit. Buildings for the AFRC would be of permanent construction and provide 69,437 square feet (SF) with associated parking areas, sidewalks, and landscaping. A 55,070 SF reserve center with administrative functions, a 7,300 SF multi-use classroom building, a 1,065 SF organization unit storage building, and a 6,002 SF vehicle maintenance facility would be constructed. All other appurtenant infrastructure (e.g., plumbing, electrical systems, heating, ventilation, and air-conditions systems [HVAC], and anti-terrorism/force protection [AT/FP] systems) would also be provided. The total area expected to be disturbed is approximately 10 acres, of which approximately 4 acres would be buildings, parking areas and sidewalks, and the remaining 6 acres would be landscaped.

2.2.1 Force Structure

Force structure refers to the numbers, size, and composition of units comprising Army forces. The BRAC Commission recommendations concerning Arkadelphia do not add force structure because the recommendations only involve the realignment of units assigned to the current Arkadelphia USARC and the Arkansas National Guard Readiness Center in Arkadelphia to the new AFRC. As a result, there would be no net change in active duty and civilian personnel at Arkadelphia (Headquarters, Department of the Army 2008).

2.2.2 Garrison Facilities

Implementation of the proposed action would require the construction of a new AFRC at Arkadelphia that would include administrative, assembly, educational, storage, special training, library, and support areas. Table 2-1 identifies the proposed facilities projects. New construction projects would provide a total of approximately 69,437 SF of space.

Table 2-1. Proposed Construction Projects

Project No.	Facility	Square Feet (approximate)
64527	Armed Forces Reserve Center	55,070
64527	Multi-use Classroom	7,300
64527	Vehicle Maintenance Shop	6,002
64505	Organizational Unit Storage	1,065
Total		69,437

There would be no anticipated change in the number of full-time personnel (military and civilians) assigned to Arkadelphia, and the distance between the existing USARC and the proposed AFRC is approximately 3 miles; therefore, no additional housing would be required as a result of this action. The site selected for construction of the AFRC would be vacant land and no demolition would be required as a result of the proposed action. Equipment and vehicles (*i.e.*, small troop transport vehicles such as High Mobility Multipurpose Wheeled Vehicles) currently stored and utilized at the existing USARC would be moved to the new AFRC, and therefore there would be no change in equipment utilized in the Arkadelphia area.

2.2.3 Training Facilities

There would be no change to the size of training facilities or operations demands as a result of the proposed action. The new AFRC would provide training and classroom facilities.

2.2.4 Weapon Systems

Small arms are vaulted and stored at the existing USARC. These same small arms would be stored at the proposed AFRC; therefore there would be no change to the type, number and weapon systems stored at Arkadelphia as a result of the proposed action. There would be no change to weapon systems storage as a result of the proposed action.

2.2.5 Schedule

Under the 2005 BRAC law, the Army must initiate all realignments no later than September 15, 2007, and complete all realignments not later than September 15, 2011. Implementation of the proposed action would occur over a span of approximately 3 years. Facilities construction would be synchronized to meet the needs, on a priority basis, of units being relocated from overseas. Establishment of new units would occur as facilities for their operations and support become available.

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SECTION 3.0
ALTERNATIVES



3.0 ALTERNATIVES

3.1 INTRODUCTION

A basic principle of the NEPA is that an agency should consider reasonable alternatives to a proposed action. Considering alternatives helps to avoid unnecessary impacts and allows analysis of reasonable ways to achieve the stated purpose. To warrant detailed evaluation, an alternative must be reasonable. To be considered reasonable, an alternative must be ready for decision making (any necessary preceding events having taken place), affordable, capable of implementation, and satisfactory with respect to meeting the purpose of and need for the action. The following discussion identifies alternatives considered by the Army and identifies whether they are reasonable and, hence, subject to detailed evaluation in this EA.

Alternatives to the proposed action have been examined according to three variables: means to physically accommodate relocated units, siting of new construction, and schedule. This section presents the Army's development of alternatives and addresses alternatives available for the proposed action. This section also describes the no action alternative.

3.2 ALTERNATIVES TO THE PROPOSED ACTION

3.2.1 Expansion of Existing Space

The expansion of the existing Arkadelphia USARC is not possible because of its proximity to an airport, railroad and highway. The current USARC consists of 24,261 SF of building space with no maintenance capabilities on 2.83 acres of land. The current utilization rate is 136 percent. Additionally, the existing facility does not meet AT/FP requirements. Therefore, the expansion of facilities at the current location is not viable. Construction of new facilities is driven by the need to ensure adequate space is available for mission requirements.

3.2.2 Alternate Sites at Arkadelphia

This project involves new construction that would provide over 69,437 SF of administrative, education, maintenance, and storage space. Approximately 10 acres of land is needed to accommodate the new construction of facilities, including parking, access for ingress and egress, and security fencing. Therefore, available sites of at least 10 acres in size in and around Arkadelphia were evaluated. Eleven sites that were at least 10 acres in size were

evaluated in January 2007 in the Arkadelphia area for their suitability for the AFRC (Table 3-1). It was initially determined that two of the sites evaluated were considered suitable for the construction of the AFRC because they fully met the evaluation criteria, such as proximity to utilities and police and fire service, visibility to the community, accessibility, and availability of the land (Figure 3-1). The remaining sites were eliminated from further consideration due to issues associated with large amounts of earthwork needed due to topography, lack of adequate access, little to no visibility to the community, or their location within the 100-year floodplain (Table 3-1).

Table 3-1. Sites Evaluated for the Location of the Arkadelphia AFRC

Evaluated Site	Location	Primary Reason(s) for Elimination
#1	State Route (SR) 26/ SR 26 Spur	Topography
#2 (Proposed Action Site)	SR 26 Spur/McClellan Blvd.	Selected as alternate site
#3	SR 26 Spur/McClellan Blvd.	Limited access and drainage concerns
#4	Flave Road	Close to abandoned sewer plant; limited access
#5	Flave Road	Limited access; creek on property; topography
#6	SR 26	Adjacent to wildlife management area; topography
#7	SR 26	Adjacent to wildlife management area; topography
#8	Flave Road	Limited access; topography
#9 (Originally Preferred Site)	Old Military Road	Presence of cultural resources
#10	Halsey Road	No visibility to community; no community services
#11	Halsey Road	Located within the 100-year floodplain

The originally preferred site (Site #9) is located on Old Military Road just west of I-30, within a larger parcel that is currently used for agricultural purposes (Figure 3-2; Photograph 3-1). The proposed action site (Site #2) is located at the corner of State Route (SR) 26 Spur and McClellan Boulevard, east of I-30, and is also in agricultural use (Figure 3-3;



Photograph 3-1. Originally Preferred Site under Agricultural Production

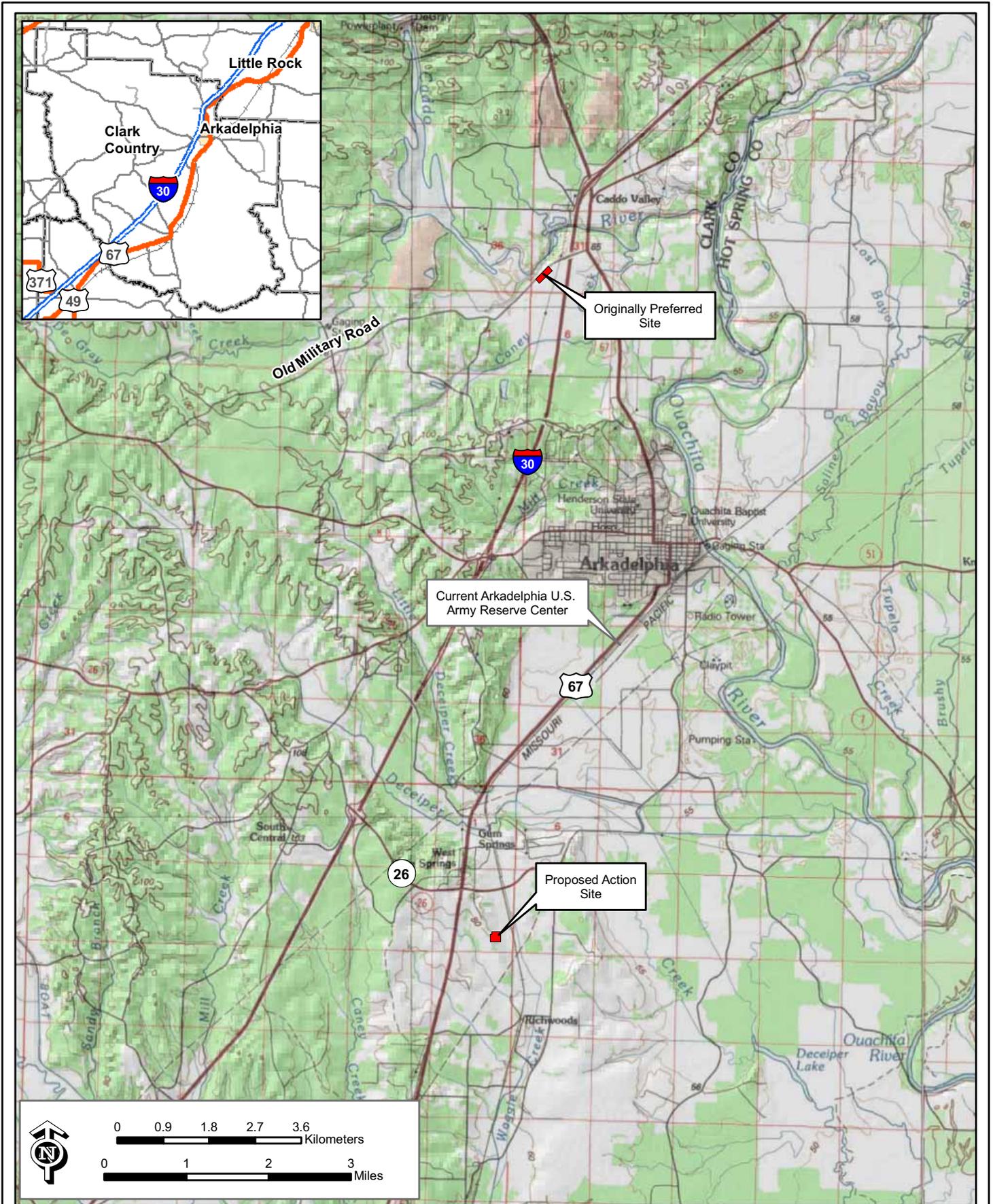


Figure 3-1: Arkadelphia Armed Forces Reserve Center (AFRC) Site Map



Date: July 2007



Figure 3-2: Footprint of Originally Preferred Site and Location of Barkman Mound



Date: May 2007

Figure 3-3: Footprint of Proposed AFRC Location

Photograph 3-2). Although both sites adhere to the general and specific siting criteria set forth in Section 1.2 (Purpose and Need), after further investigation of the originally preferred site, it was determined that it contained deeply buried cultural material that would potentially be disturbed during AFRC construction. Therefore, due to the potential impacts to highly sensitive resources, the originally preferred site was eliminated from further evaluation. This project has been coordinated with the installation physical security plan and all AT/FP measures would be included. Besides the proposed action, no additional alternative siting schemes are evaluated in detail in this EA.



Photograph 3-2. Proposed Action Site Looking Towards the Intersection of Highway 26 Spur and McClellan Boulevard

3.2.3 Alternate Schedules

The schedule for implementation of the proposed action must balance facilities construction time frames and the needs of Army Reserve and National Guard units and stand-up dates of newly-established units, all within the 6-year limitation of the 2005 BRAC law. Relocation of the units earlier than that discussed in the schedule in Section 2.2.5 (Schedule) is not feasible due to the length of time required to build facilities. Shifting of schedules to accomplish realignment at a later date would unnecessarily delay the realization of benefits to be gained. Since earlier implementation is not possible, and since delay is avoidable and unnecessary, alternative schedules are not further evaluated in this EA. Table 3-2 is a tentative schedule for the design and construction activities and the proposed relocation of USARC units.

Table 3-2. Tentative Dates for Completion of Major Items Associated with Construction of an AFRC at Arkadelphia

Action	Tentative Start Date	Tentative Completion Date
Design of New Facility	March 2008	September 2008
Construction of New Facility	September 2008	August 2009
Relocation of USARC units	August 2009	November 2009

3.3 NO ACTION ALTERNATIVE

CEQ regulations require inclusion of the no action alternative. Under the no action alternative, the Arkadelphia USARC would remain at its current location and continue to be used by the Army Reserve. However, since this closure and relocation have been mandated by Congress and the President, the no action alternative will serve as a baseline against which the impacts of the proposed action can be evaluated.

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SECTION 4.0
AFFECTED ENVIRONMENT AND CONSEQUENCES



4.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

4.1 INTRODUCTION

This section of the EA describes the natural and human environment that exists at and surrounding the proposed action site in Arkadelphia, and the potential effects on those resources as a result of the proposed action and alternatives. Only those resources that have the potential to be affected by the proposed action and alternatives are described, as per CEQ guidance (40 CFR 1501.7 a [3]). Therefore, resources and items, such as climate, air space, geology, ground water, floodplains, coastal zone, energy sources, communication systems, and solid waste are not addressed for the following reasons:

- Climate - The proposed action would not affect, nor be affected by, climate.
- Air space - The proposed action does not involve any aircraft training or use of aircraft at the proposed AFRC or existing USARC; therefore air space would not be affected.
- Geology - The proposed action would only disturb surface soils during the construction of buildings and parking areas, and would not affect regional geological features nor cause an existing geologic feature to become unstable. Although geologic resources are not described further, soil resources are described below.
- Groundwater - The Arkadelphia area is north of the Tokio Aquifer and is not within or upstream of a recharge zone (U.S. Geological Survey [USGS] 2004). The new AFRC would utilize public water sources for construction uses and potable water supply and would utilize these resources at approximately the same rate as the current USARC. Therefore, there would be no change to groundwater supply as a result of the proposed action.
- Floodplains - The proposed action is not located within a flood zone as depicted on Federal Emergency Management Agency (2005) maps.
- Coastal zone - The proposed action is not located within a coastal zone.
- Energy sources - Slight increases in energy consumption would occur during the construction of the AFRC facility. However, the majority of the energy demands at the ARFC would be met by the same regional grid as currently provided at Arkadelphia USARC.
- Communication systems - The proposed action would have negligible additional demand or other impact on local or regional communication systems because the AFRC would utilize the same communication utilities as the current USARC.
- Solid waste - The proposed action would not result in increased production of solid waste in the region, since the majority of the personnel would be relocated from the Arkadelphia USARC. The disposal of solid waste from the AFRC would utilize the same landfill as that which is currently disposed of from the USARC.

An impact (consequence or effect) is defined as a modification to the human or natural environment that would result from the implementation of an action. The impacts can be either beneficial or adverse and either directly related to the action (40 CFR 1508.8[a]) or indirectly caused by the action (secondary, indirect, or synergistic effects) (40 CFR 1508.8[b]). The effects can be temporary (short-term), long lasting (long-term), or permanent. For purposes of this EA, temporary effects are defined as those that would last during construction activities. Long-term impacts are defined as those that would last for the duration of the action. Permanent impacts would require an irretrievable commitment of resources.

Impacts can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. The significance of the impacts presented in this EA is based upon existing regulatory standards, scientific and environmental knowledge, and best professional opinions of the authors of the EA. The significance of the impacts on each resource will be described as significant, moderate, minimal, insignificant (or negligible), or no impact. Significant impacts are determined in relation to both context (*e.g.*, locality, region of influence, persons of interest), and intensity (40 CFR 1508.27).

4.2 WATER RESOURCES

4.2.1 Affected Environment

The proposed action site is located in the Upper Ouachita Watershed (USGS 2007). The Upper Ouachita Watershed includes the Ouachita River, Decipher Creek south of Arkadelphia, the headwaters of DeGray Lake, the Caddo River, and other tributaries of the Ouachita River (Figure 4-1). None of the surface waters in the Upper Ouachita Watershed are listed as impaired under Section 303(d) of the CWA of 1977 (PL 95-217). Generally, waters on the 303(d) list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. There are no surface water bodies located at the proposed action site; however, a small wetland is present near the center of the parcel, and is further described in Section 4.5.

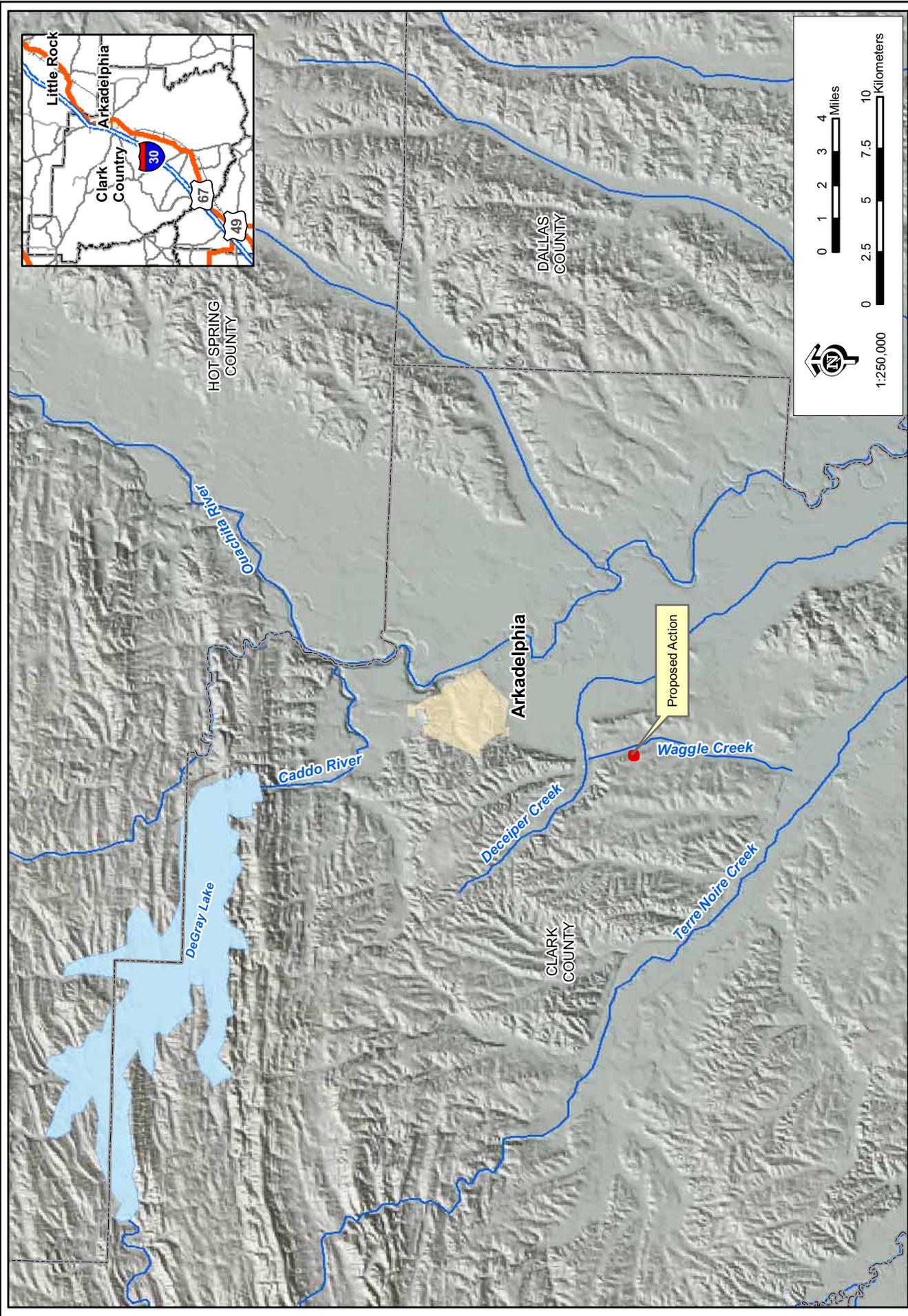


Figure 4-1: Water Resources near the Proposed Action

4.2.2 Environmental Consequences

4.2.2.1 Proposed Action

The proposed action would result in the disturbance of up to 10 acres of soil during construction. Disturbed soils are susceptible to erosion, especially during storm events, and suspended sediments could pollute nearby Waggle Creek, which is located approximately 1,000 feet east of the proposed action site. Operation of the AFRC would include the operation of a vehicle maintenance shop, which would also be a potential source of pollutants. The development of a Storm Water Pollution Prevention Plan (SWPPP), as required by the CWA, would limit potential impacts of pollutants during construction and operation of the AFRC to a level that is less than significant. Operation of the USARC does not generate pollutants other than those resulting from leaks of parked cars and petroleum, oils and lubricants (POL) stored and used at the vehicle maintenance shop.

4.2.2.2 No Action

Under the no action alternative, no soils would be disturbed. Stormwater runoff generated on the site would be collected by the existing stormwater drainage system which eventually drains into riparian wetlands associated with the Caddo and Ouachita Rivers. Potential impacts on water resources under the no action alternative would be minimal.

4.3 SOILS

4.3.1 Affected Environment

There are three soil types underlying the proposed project area (Figure 4-2): Sumter silty clay, Okibbeha fine sandy loam, and Houston clay (U.S Department of Agriculture [USDA] 2006). None of the soils are protected by the Farmland Protection Policy Act (FPPA).

The Sumter silty clay soil type makes up 100 percent of the Sumter map unit. This soil type is found on slopes of 3 to 12 percent between adjacent streams flowing in the same general direction. The parent material consists of clayey residuum weathered from chalk, and the shrink-swell potential is high. This soil is well drained and does not meet hydric soil criteria (USDA 2006).

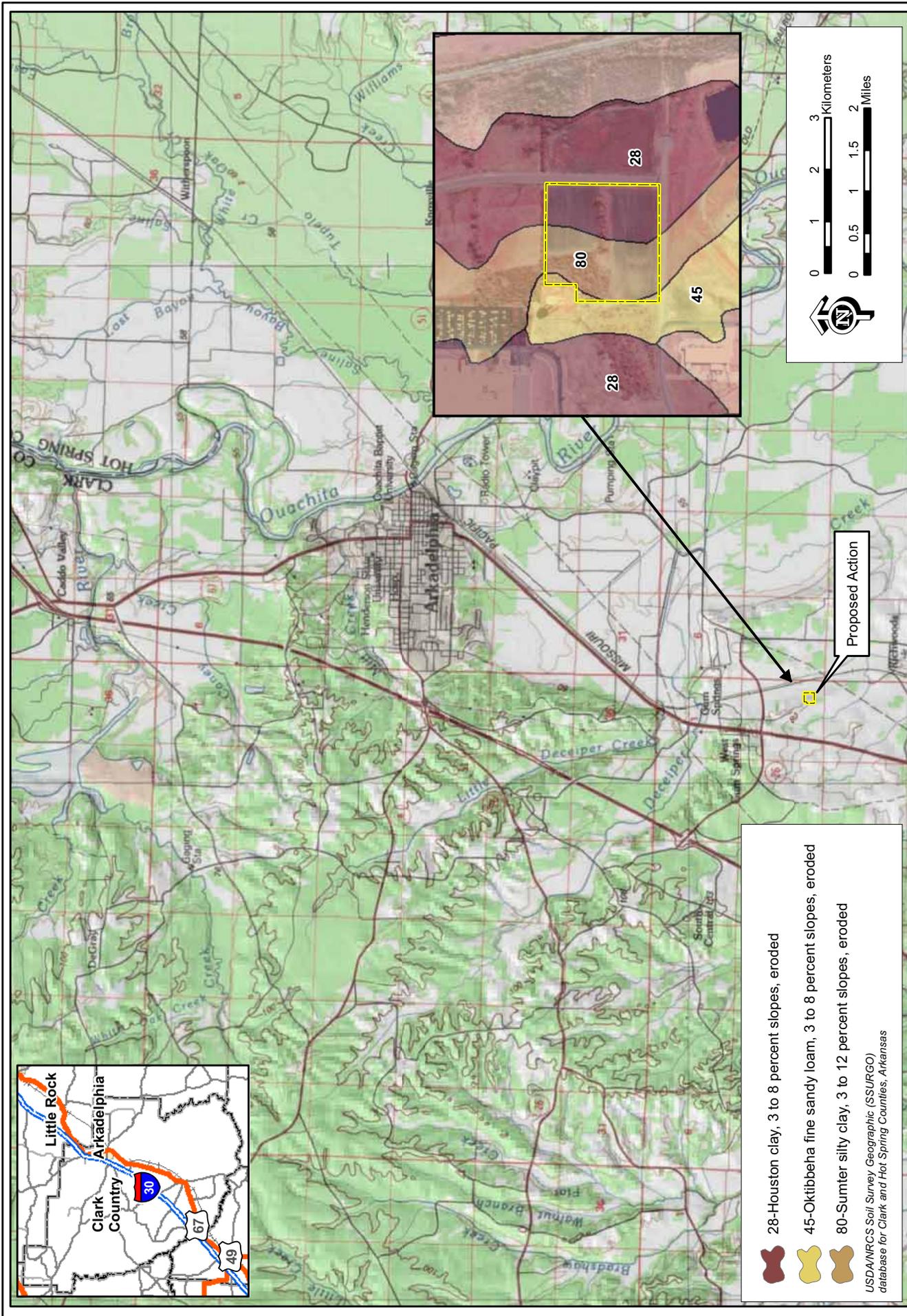


Figure 4-2: Soils within the Proposed Action

The Oktibbeha fine sandy loam makes up 100 percent of the Oktibbeha map unit. This soil type is found on slopes between 3 and 8 percent between adjacent streams flowing in the same general direction. The parent material consists of acid clayey marine deposits derived from chalk, and shrink-swell potential is high. This soil is moderately well drained and does not meet hydric soil criteria (USDA 2006).

The Houston clay soil type makes up 100 percent of the Houston map unit. This component is found on coastal plains with slopes ranging from 3 to 8 percent. The parent material consists of clayey marl derived from chalk, and shrink-swell potential is very high. This soil type is moderately well drained and does not meet hydric soil criteria (USDA 2006).

4.3.2 Environmental Consequences

4.3.2.1 Proposed Action

Construction of the Arkadelphia AFRC would remove 4.59 acres of Houston clay, 0.38 acres Okitibbeha fine sandy loam, and 4.97 acres of Sumter silty clay from agricultural production. These three soil types are not considered prime farmland or farmland of statewide importance (personal communication, Smith 2007). Form AD-1006 assessment for this site (Appendix B) scored a total point value of 106, or less than 160; therefore, further consideration as prime farmland is not necessary. Since only a small area of these relatively common soil types would be lost from agricultural production, impacts would be less than significant. Application for a National Pollutant Discharge Elimination System (NPDES) General Stormwater Construction permit and development of a SWPPP would protect soils from erosion and would be required for this alternative.

4.3.2.2 No Action

Under the no action alternative, no soils would be disturbed by construction activities. Therefore, soils would not be impacted.

4.4 AIR QUALITY

4.4.1 Affected Environment

Arkadelphia and Clark County are located within EPA Region 6. Clark County is in attainment for all the health-based National Ambient Air Quality Standards (NAAQS) regulated by the CAA and monitored by EPA (EPA 2007a). NAAQS represent the maximum levels of background

pollution, with an adequate margin of safety, to protect the public health and welfare. Areas that do not meet these standards are called non-attainment areas; areas such as Clark County that meet both primary and secondary standards are known as attainment areas. The *de minimis* thresholds are not applicable in areas designated as “in attainment”; however, the thresholds are used in the EA as numerical standards to assess impacts.

4.4.2 Environmental Consequences

4.4.2.1 Proposed Action

Emissions associated with construction equipment combustion engines and fugitive dust (*i.e.*, particulate matter less than 10 microns [PM-10]) from soil disturbance would result in minor increases in air pollution during construction of the new AFRC. Due to the limited area and duration of the construction activities, any increases or impacts on ambient air quality are expected to be short-term.

Calculations were performed to estimate the total air emissions from the new construction activities (Appendix A). Assumptions were made regarding the type of equipment used, total number of days each type of equipment would be used, and the number of hours per day each type of equipment would be used. EPA approved model NONROAD6.2 emission factors for standard construction equipment such as excavators, generators, cement trucks, backhoes, cranes, and bulldozers were used to estimate total emissions from combustible engines. The Midwest Research Institute’s (1996) Improvement of Specific Emission Factors were used to estimate fugitive dust emissions from soil disturbance. A summary of the total emissions is presented in Table 4-1. As can be seen from this table, the air emissions from construction activities do not exceed *de minimis* thresholds (100 tons/year).

Table 4-1. Total Air Emissions (tons/year) from Construction Activities

Pollutant	Total (tons/year)	<i>de minimis</i> Threshold (tons/year)
Carbon Dioxide	42.92	100
Volatile Organic Carbon	9.22	100
Nitrogen Oxide	77.18	100
Particulate < 10 microns (PM-10)	13.01	100
Particulate < 2.5 microns (PM-2.5)	7.56	100
Sulfur Dioxide	9.59	100

Source: 40 CFR 51.853 and Gulf South Research Corporation

Impacts from combustible air emissions due to the everyday commute of personnel to the AFRC after construction are not expected to change. Construction workers would temporarily increase the combustible emissions in the air shed during their commute to and from work. Supplies would be delivered to the site by large delivery trucks. The emissions from supply trucks and workers commuting to work were included in the air emission analysis (Appendix A) and in the totals presented in Table 4-1.

During the construction of the new AFRC, proper maintenance of all vehicles and other construction equipment would be implemented to ensure that emissions are within the design standards of all construction equipment. Dust suppression methods (*i.e.*, watering of soils) would be implemented to minimize fugitive dust emissions.

4.4.2.2 No Action Alternative

Without construction of the new AFRC, total air emissions resulting from operation of the USARC would remain relatively unchanged.

4.5 BIOLOGICAL RESOURCES

4.5.1 Affected Environment

The Arkadelphia area is located in the South Central Plains Ecoregion (Arkansas Wildlife Action Plan 2005). The South Central Plains are characterized by forests and woodland consisting of loblolly (*Pinus taeda*) and shortleaf pine (*Pinus echinata*) plantations (EPA 2007b). Agricultural fields are also common and hardwood tree species dominate riparian corridors.

Common mammals of the South Central Plains include raccoon (*Procyon lotor*), white-tailed deer (*Odocoileus virginianus*), mice (*Peromyscus* spp.), and voles (*Microtus* spp.), Virginia opossum (*Didelphis virginiana*), and rabbits (*Sylvilagus* spp.) (Benyus 1998). Bird species include migratory birds, such as eastern bluebird (*Sialia sialia*), field sparrow (*Spizella pusilla*), northern bobwhite (*Colinus virginianus*) and killdeer (*Charadrius vociferous*). Birds of prey, such as red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*) and barred owls (*Strix varia*) would be expected to prey on smaller birds and mammals present in the area. Wading birds and ducks, such as great blue heron (*Ardea herodias*) and wood duck (*Aix sponsa*) would likely occur near the proposed action site in the Waggle Creek and Ouachita River riparian corridors. Reptiles and amphibians that would be expected to occur in the area

include bullfrog (*Lithobates catesbeianus*), eastern garter snake (*Thamnophis sirtalis sirtalis*), eastern fence lizard (*Sceloporus undulatus*), and milk snake (*Lampropeltis triangulum*) (Benyus 1998).

The proposed action site is an active agricultural field planted in soybeans (*Glycine max*). Vegetation observed along the perimeter of this site included Queen Ann’s lace (*Daucus carota*), aster (*Aster* sp.), wild onion (*Allium* sp.), bachelor’s buttons (*Centaurea cyanus*), Carolina horse nettle (*Solanum carolinense*), fescue (*Festuca* sp.), and ragweed (*Ambrosia* sp.). Approximately 1.5 acres of the site are forested, and are dominated by American hornbeam (*Carpinus caroliniana*), cat greenbriar (*Smilax glauca*), poison ivy (*Toxicodendron radicans*), honey locust (*Gleditsia triacanthos*), and persimmon (*Diospros virginiana*). No wildlife was observed during field surveys conducted on June 6, 2007.

4.5.1.1 Federally Protected Species

The ESA was enacted to provide a program for the preservation of endangered and threatened species, and to provide protection for the ecosystems upon which these species depend for their survival. All Federal agencies are required to implement protective measures for designated species and to use their authorities to further the purposes of the ESA. Table 4-2 lists Federally protected species of Clark County, Arkansas and their preferred habitat. Although each of the Federally protected mussels could occur in the Ouachita River and its tributaries, there is no suitable habitat at the proposed action site for any Federally listed species. The ESA also calls for the conservation of what is termed critical habitat - the areas of land, water, and air space that an endangered species needs for survival. No critical habitat has been designated in Clark County, Arkansas.

Table 4-2. Federally Listed and Proposed Species for Clark County, Arkansas

Common/Scientific Name	Federal Status	Preferred Habitat
INVERTEBRATES		
Arkansas fatmucket <i>Lampsilis powelli</i>	Threatened	Occurs in deep pools and backwater areas with various substrates.
Ouachita rock pocketbook <i>Arkansia wheeleri</i>	Endangered	Occurs in pools with a cobble-gravel bottom or backwater with a gravel-sand bottom.
Pink mucket <i>Lampsilis abrupta</i>	Endangered	Occurs in shallow riffles and shoals free of silt.
Scaleshell <i>Leptodea leptodon</i>	Endangered	Occurs in medium and large sized rivers with stable channels.

Table 4-2, continued

Common/Scientific Name	Federal Status	Preferred Habitat
Spectaclecase <i>Cumberlandia monodonta</i>	Candidate	Occurs in large rivers in shallow riffles and shoals with various substrates.
Winged mapleleaf <i>Quadrula fragosa</i>	Endangered	Occurs in riffles with gravel, sand or rubble bottoms.
BIRDS		
Red-cockaded woodpecker <i>Picoides borealis</i>	Endangered	Inhabits open pine forest especially longleaf pine forests, maintained by frequent fires.
MAMMALS		
Florida panther <i>Puma concolor coryi</i>	Endangered	Historic range included Lower Mississippi Valley including Arkansas.

Source: Audubon Arkansas 2007; Cornell Lab of Ornithology 2003; Ohio River Valley Ecosystem Team 2002; U.S. Fish and Wildlife Service 1990, 1993, 1997a-b, 2004a-b, 2007

4.5.1.2 State Protection

Arkansas state law issues directives for sound management, conservation and public awareness of the state's natural heritage of native plants and non-game animals (Arkansas Code Annotated §§ 15-45-301-306). This mandates for the protection of rare, threatened, and endangered species and critical habitat.

The Arkansas Natural Heritage Commission identifies ecologically important areas and sets priorities for the protection of these areas and the species that inhabit them to conserve the natural diversity of Arkansas. A comprehensive inventory is maintained to track the location and status of rare species and natural communities in Arkansas (Arkansas Natural Heritage Commission 2007).

4.5.1.3 Wetlands

Section 404 of the CWA of 1977 (PL 95-217) authorizes the Secretary of the Army, acting through the USACE, to issue permits for the discharge of dredged or fill material into Waters of the U.S., including wetlands. Wetlands are those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (Environmental Laboratory 1987). A 0.69-acre potentially jurisdictional wetland is located within the alternative site (Figure 4-3). This wetland is located within a vegetated area that separates the 10-acre site into two soybean fields. The vegetation observed within this area included honey locust, persimmon, poison ivy, ragweed, cat greenbriar and American hornbeam.



Figure 4-3: Wetland Map

Proposed Action Boundary
 Potentially Jurisdictional Wetland
 USGS Arkadelphia SW DOQQ

4.5.2 Environmental Consequences

4.5.2.1 Proposed Action

The implementation of the proposed action would have permanent, but minimal, impacts on biological resources. The loss of agricultural fields and displacement of common wildlife is considered minimal due to the regional abundance of these resources. There is no suitable habitat to support threatened or endangered species at the proposed action site (Appendix B). Furthermore, implementation of the BMPs included in the project's SWPPP would ensure that there would be no impacts on protected aquatic species potentially located off-site in Waggle Creek and Ouachita River from stormwater runoff. A potentially jurisdictional wetland occurs on the proposed action site and would be filled by construction activities. Due to its location in the center of the parcel, avoidance of the wetland would not be possible. A Section 404 permit from the Vicksburg District Regulatory Division would be required prior to the placement of any fill in the wetland area. The permit would include requirements for the replacement of wetland functions either on-site or at a U.S. Army Corps of Engineers' approved off-site location. Therefore, impacts from the loss of this wetland area would be mitigated through the Department of the Army, Section 404 permitting process, and would be less than significant.

4.5.2.2 No Action

The existing USARC is located in a developed area, and there are no sensitive species or vegetation communities nearby. There would be no adverse impacts on biological resources resulting from the implementation of the no action alternative.

4.6 LAND USE

4.6.1 Affected Environment

The proposed action site is part of the Clark County Industrial Park, and is currently used for crop production. Adjacent land uses include a trucking facility to the northwest and an industrial park to the south. Other land use in the vicinity is primarily agricultural with some forested lands. The proposed action site is zoned only for industrial, manufacturing, warehousing or distribution purposes, and the use for residential purposes or the sale of merchandise or services, excepting retail sales by park occupants of those products which they manufacture or handle at wholesale, is expressly prohibited (Clark County Industrial Council 2007).

4.6.2 Environmental Consequences

4.6.2.1 Proposed Action

The construction of the AFRC would change the existing land use from agriculture production to developed land; however, no Prime Farmlands would be impacted, and the proposed land use would be consistent with zoning requirements. Operation of the AFRC would not limit the movement of agricultural equipment or block access to agricultural lands; and, therefore, would not affect adjacent and surrounding agricultural land uses. Increased noise, as discussed below in Section 4.9 (Noise), and traffic, as discussed below in Section 4.7 (Transportation), during construction and operation of the AFRC would have minimal impacts on the adjacent trucking facility and tenants within the industrial park. Additionally, construction-related noise would be anticipated by tenants within a developing industrial park.

4.6.2.2 No Action

Under the no action alternative, no change to land use at the existing USARC would occur.

4.7 TRANSPORTATION

4.7.1 Affected Environment

The major transportation corridor in Arkadelphia is I-30, which carries east and west bound traffic between Dallas, Texas and Little Rock, Arkansas. Other important corridors include U.S. Route 67, which generally runs parallel to I-30, and State Route (SR) 7, 8, and 51 (Figure 4-4). Primary access to the site is provided by U.S. Route 67 via McClellan Road and SR 26 Spur. There is a left hand turning lane for south-bound traffic on U.S. Route 67 at its intersection with McClellan Road. The average daily traffic volume on this segment of U.S. Route 67 is 4,300 vehicles; average daily traffic volume on McClellan Road is 490 vehicles; average daily traffic volume on SR 26 Spur is 140 vehicles (Arkansas Highway and Transportation Department 2002).

4.7.2 Environmental Consequences

4.7.2.1 Proposed Action

Construction of the AFRC at the alternative location would temporarily affect south-bound commuter traffic on U.S. Route 67 south of Gum Springs, Arkansas and local traffic on McClellan Road. However, the existing southbound, left-hand turn lane on U.S. Route 67 would limit potential temporary impacts to commuter traffic. Furthermore, an alternate route to U.S.

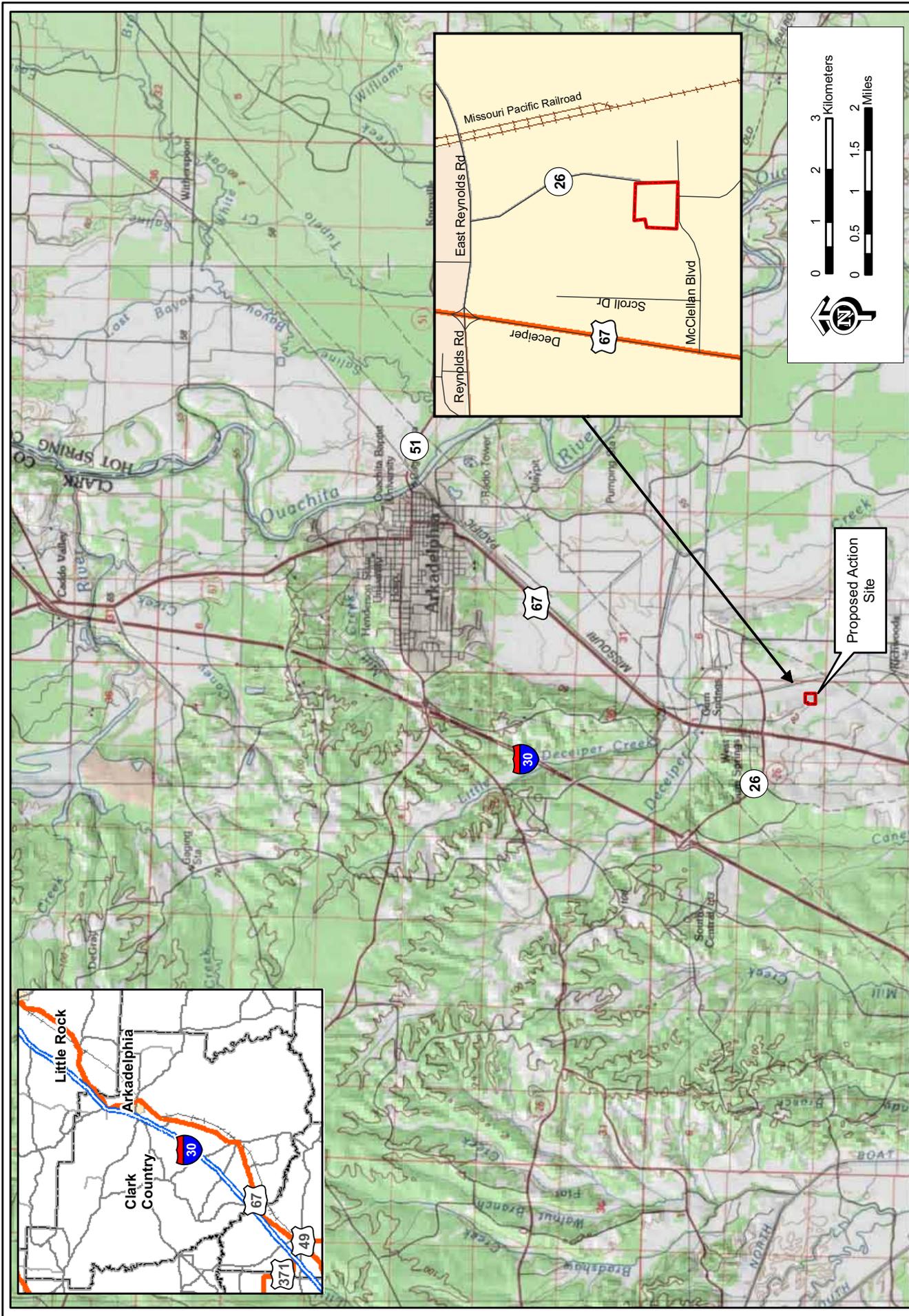


Figure 4-4: Transportation Resources near the Proposed Action Site

Route 67 is provided by SR 26 Spur, and could be used to limit the impacts of major movements of personnel and equipment. The exact number of vehicles that would access the new AFRC is not known, but that number would be very similar to the number of vehicles that currently access the existing USARC located 3 miles north of the Proposed Action site. There are no significant transportation impacts from the use of the existing USARC, which is located in a more congested location in Arkadelphia; therefore, the relocation of these same units to the AFRC at the Proposed Action site where transportation access is substantially improved would be a beneficial impact. It is anticipated that only small wheeled vehicles would be stored at the AFRC (e.g., Highly Mobile Multipurpose Wheeled Vehicles), and that no tracked vehicles would be stored or transported to/from the AFRC. Most activity at the new AFRC would occur on weekends when National Guard and Reserve units conduct their primary training, minimizing potential impacts on local transportation.

4.7.2.2 No Action

The operation of the USARC would continue to impact transportation. The location of the USARC on U.S. Route 67 is accessed by a railroad crossing, and this crossing also serves as access to the Arkadelphia Municipal Airport. Although most activity at the USARC occurs on weekends, ingress and egress to the facility could delay traffic attempting to access the airport. As development continues to encroach upon the USARC, impacts on local traffic could increase.

4.8 UTILITIES

4.8.1 Affected Environment

4.8.1.1 Potable Water Supply

The Arkadelphia area receives its drinking water supply from the Arkadelphia Water Utilities, which obtains their water from the Ouachita River. The proposed action site is located south of Gum Springs and is within the Arkadelphia Water Utilities System service area (Clark County Industrial Council 2007).

4.8.1.2 Wastewater System

The Arkadelphia Water Utilities System provides service to the proposed ARFC site. Current treatment capacity for the Clark County Industrial Park is 5 million gallons per day (MGD), with an average daily usage of 1.8 million MGD (Clark County Industrial Council 2007).

4.8.1.3 Electric Supply

Entergy provides the electrical supply for 679,000 customers and includes 63 counties in Arkansas. The proposed action site has access to existing power distribution lines (Clark County Industrial Council 2007).

4.8.2 Environmental Consequences

4.8.2.1 Proposed Action

Because the number of personnel associated with the proposed action would not change, there would be no effect on the potable water supply, wastewater treatment capacity, or electric supply in the Arkadelphia area. The estimated water use for the new facility is approximately 300,000 gallons per month. All utility services are currently available at the site with adequate capacity; therefore, no additional utility lines for water, sewer or electric service would be constructed.

4.8.2.2 No Action

Utilities supply and capacity in the Arkadelphia area are capable of meeting current and future demands. Therefore, the no action alternative would not affect the supply of utilities.

4.9 NOISE

4.9.1 Affected Environment

Noise is generally described as unwanted sound, which can be based either on objective effects (*i.e.*, hearing loss, damage to structures, *etc.*) or subjective judgments (*e.g.*, community annoyance). Sound is usually represented on a logarithmic scale with a unit called the decibel (dB). Sound on the decibel scale is referred to as sound level. The threshold of human hearing is 0 dB, and the threshold of discomfort or pain is around 120 dB.

Noise levels are computed over a 24-hour period and adjusted for nighttime annoyances to produce the day-night average sound level (DNL). DNL is the community noise metric recommended by the EPA and has been adopted by most Federal agencies (EPA 1974). Several examples of noise pressure levels in dBA (A-weighted decibel is a measure of noise at a given, maximum level or constant state level) are listed in Table 4-3. A DNL of 65 dBA is the level most commonly used for noise planning purposes and represents a compromise between community impact and the need for activities like construction. Areas exposed to a DNL above

65 dBA are generally not considered suitable for residential use. A DNL of 55 dBA was identified by EPA as a level below which there is no adverse impact (EPA 1974).

Table 4-3. A-Weighted (dBA) Sound Levels of Typical Noise Environments

dBA	Overall Level	Noise Environment
120	Uncomfortably Loud (32 times as loud as 70 dBA)	Military jet takeoff at 50 feet
100	Very loud (8 times as loud as 70 dBA)	Jet flyover at 1,000 feet
90	Very Loud	Heavy-duty truck, average traffic
80	Loud (2 times as loud as 70 dBA)	Propeller plane flyover at 1,000 feet Diesel truck 40 mph at 50 feet
70	Moderately loud	Freeway at 50 feet from pavement edge Vacuum cleaner (indoor)
65	Moderately loud	Gas powered generator
60	Relatively quiet (1/2 as loud as 70 dBA)	Air conditioning unit at 10 feet Dishwasher at 10 feet (indoor)
50	Quiet (1/4 as loud as 70 dBA)	Large transformers Small private office (indoor)
40	Very quiet (1/8 as loud as 70 dBA)	Bird calls Lowest limit of urban ambient sound
10	Extremely quiet (1/64 as loud as 70 dBA)	Just audible
0	Threshold of hearing	

Source: Wyle Research Corporation 1992

Existing noise levels at the proposed action site are affected by traffic on U.S. Route 67, the Missouri Southern Railroad and the nearby trucking facility and adjacent tenants within the industrial park. However, there are no nearby sensitive noise receptors. Noise levels at the existing USARC are affected by its proximity to U.S. Route 67, the Missouri Southern Railroad, the Arkadelphia Municipal Airport, and adjacent businesses

4.9.2 Environmental Consequences

4.9.2.1 Proposed Action

Construction of the AFRC would result in a temporary and minor increase in noise levels during construction. The noise environment at the proposed AFRC site includes noise generated by the adjacent trucking company and other industrial and technological businesses. This noise would be attenuated by distance before affecting nearby land use; furthermore, noise levels generated by construction activities are not likely to exceed ambient conditions at adjacent properties. The operation of the AFRC would result in minimal and intermittent increases in

noise levels typical of an urban environment and would not impact adjacent land uses, because adjacent land uses are industrial and not sensitive receptors. .

4.9.2.2 No Action

The ambient noise levels in the vicinity of the USARC are affected by its proximity to a railroad, airport, state highway, and an industrial park. Therefore, the continued contribution of noise generated from vehicle use during ingress and egress to the USARC would be relatively low. Conversely, noise generated by surrounding land use adversely affects training at the existing USARC.

4.10 HAZARDOUS AND TOXIC SUBSTANCES

4.10.1 Affected Environment

During the June 2007 site visit, no hazardous materials or wastes were identified at the proposed action site or on properties adjacent to the site. There are no treatment, storage, or disposal facilities or special hazards located on or adjacent to the proposed action site. A search for known hazardous or toxic materials sites in Clark County was conducted on the Comprehensive Environmental Response, Compensation, and Liability Information System and Superfund Information System (EPA 2007c). The DeGray Lake Dam, located approximately 10 miles northeast of the proposed action site, was the only record returned; this site was listed as having NFRAP (no further remedial action planned) status by the EPA.

4.10.2 Environmental Consequences

4.10.2.1 Proposed Action

A Phase I Environmental Site Assessment would be performed to identify any hazardous waste sites or potential hazardous waste sites before the proposed action site is acquired. If the Phase I Environmental Site Assessment reveals any recognized environmental conditions, a Phase II Environmental Site Assessment would be conducted to assess the extent of contamination and the resolution of those conditions.

The potential exists for POL storage at the proposed action site to maintain and refuel equipment; however, these activities would include primary and secondary containment measures. Clean-up materials (e.g., oil mops) would also be maintained at the site to allow immediate action in case an accidental spill occurs. Drip pans would be provided for stationary

equipment to capture any POL accidentally spilled during maintenance activities or leaks from the equipment. Solvents and cleaners could also be stored at the AFRC. The AFRC vehicle maintenance shop would recycle parts cleaner solution. Hazardous materials would be disposed of through an approved handler according to state and Federal regulations.

In addition, as part of the construction contract, the contractor would prepare a Spill Pollution Control and Countermeasures Plan (SPCCP) and submit an application for a NPDES permit, as required, and all personnel would be briefed on the implementation and responsibilities of the plan; therefore, the proposed action would not result in a significant hazard to the public or environment regarding the transport, use, or disposal of hazardous materials.

4.10.2.2 No Action

Without the construction and operation of a new AFRC, overuse of the USARC could increase the potential for accidental spills or mishandling of hazardous materials and potentially result in contamination of soils and waters.

4.11 AESTHETICS AND VISUAL RESOURCES

4.11.1 Affected Environment

Arkadelphia is a rural community, and the surrounding landscape is predominately agricultural fields and natural areas; however, topography and forested areas limit the extent of views from public areas such as roadways and parks. The proposed action site is located within an existing industrial park, is visible from local road segments, and the view from these road segments includes agricultural fields, industrial development, a railroad, and a power line right of way.

4.11.2 Environmental Consequences

4.11.2.1 Proposed Action

Due to the presence of construction equipment and general disturbance, the greatest impacts on aesthetics would occur during construction activities. However, the proposed action site is in an established industrial park and lacks the rural character valued by Arkadelphia residents. Therefore, impacts on aesthetics and visual resources resulting from construction and operation of the AFRC would be minimal.

4.11.2.2 No Action

Without the construction of a new AFRC, the visual resources of the rural areas surrounding Arkadelphia would not be impacted. The USARC is situated adjacent to industrial, commercial, transportation, and utility developments, and does not detract from the existing aesthetic and visual resources of the area.

4.12 SOCIOECONOMIC RESOURCES

4.12.1 Affected Environment

Population in the Region of Influence (ROI) of Clark County in 2000 was 23,546 (US Census Bureau [USCB] 2000b) with roughly half the population (10,192) residing in Arkadelphia (USCB 2000a). The racial mix of Clark County is predominantly Caucasian (74.3 percent), followed by African Americans (22.0 percent); the remaining 3.7 percent of the population is split between American Indians and Alaskan Natives; Native Hawaiians; and other races (USCB 2000b). When compared to Clark County, Arkadelphia has a lower proportion of Caucasians (69.0 percent) and a higher proportion of African Americans (26.5 percent) (USCB 2000a). Persons of any race can claim Hispanic or Latino origin. Approximately 2.4 percent of the 2000 population of Clark County (USCB 2000b) and 2.6 percent of the 2000 population of Arkadelphia (USCB 2000a) claim to be of Hispanic or Latino origin. Clark County is one of 75 counties in Arkansas. Clark County's 2000 population (23,546) ranked 32nd in the state in population size (U.S. Bureau of Economic Analyses [USBEA] 2000a).

In 2000 Clark County had a per capita personal income (PCPI) of \$18,804. This PCPI ranked 37th in the state and was 86 percent of the state average, \$21,926, and 63 percent of the National average, \$29,845. In 1990 the PCPI of Clark County was \$12,539 and ranked 34th in the state. The 1990-2000 average annual growth rate of PCPI was 4.1 percent. The average annual growth rate for the state was 4.3 percent and for the Nation was 4.4 percent. (BEA 2000a)

Total personal income (TPI) includes net earnings by place of residence; dividends, interest, and rent; and personal current transfer receipts received by the residents of Clark County. In 2000, Clark County had a TPI of \$442 million. This TPI ranked 31st in the state and accounted for 0.8 percent of the state total. In 1990 the TPI of Clark County was \$269 million and ranked 30th in the state. The 1990-2000 average annual growth rate of TPI for Clark County was 5.1

percent. The average annual growth rate of TPI for both the state and the Nation was 5.6 percent. (USBEA 2000a) In 2000, net earnings accounted for 57.6 percent of TPI (compared with 55.7 percent in 1990); dividends, interest, and rent were 19.9 percent (compared with 20.5 percent in 1990); and personal current transfer receipts were 22.5 percent (compared with 23.8 percent in 1990). From 1990 to 2000 net earnings increased on average 5.4 percent each year; dividends, interest, and rent increased on average 4.8 percent; and personal current transfer receipts increased on average 4.5 percent.

The total number of jobs in Clark County in 2000 was 13,629 (Bureau of Economic Analysis [BEA] 2000), an increase of 7.8 percent over the 1995 number of jobs of 12,566 (BEA 2000c). The services sector provided the most jobs, followed by manufacturing and government and government enterprises. The 2000 annual average unemployment rate for Clark County was 4.7 percent. This is lower than the 6.1 percent average annual unemployment rate for the state of Arkansas (USCB 2000b).

A summary of housing in the ROI is given in Table 4-4. Clark County had a total of 10,166 housing units in 2000 (USCB 2000b). The 2000 home ownership rate for Clark County was 65.7 percent, and the 2000 homeownership rate for the state was 69.4 percent (USCB 2006).

Table 4-4. Housing Units

Location	Total Housing Units	Status		
		Occupied		Vacant
		Owner	Rented	
Clark County	10,166	5,856	3,056	1,254
Arkadelphia	4,216	1,917	1,948	351

Source: USCB 2000a, 2000b

4.12.2 Environmental Consequences

4.12.2.1 Proposed Action

There would be no net change in active duty and civilian personnel as a result of the proposed action. The proposed action would not adversely affect local income, employment rates, or poverty levels. There are no concentrations of minority populations or children near the proposed action site. The proposed action would not result in the removal or construction of new housing. Therefore, the proposed action would not adversely affect the socioeconomic

environment of the Arkadelphia area. Closure of the USARC would allow for a more economically beneficial use of the property and could benefit the local economy by taking advantage of its proximity to SR 67, other commercial and industrial developments, and the Arkadelphia Municipal Airport. Any materials or services purchased locally and any local hiring during construction would result in short term socioeconomic benefits. To further document the potential effects, a model of economic effects was run using the Economic Impact Forecast System (EIFS). The EIFS results indicated no net change in the long-term economy within the ROI. A copy of the EIFS results is presented in Appendix C.

4.12.2.2 No Action

Under the no action alternative, the USARC would continue to operate in Arkadelphia and would potentially limit future development. Due to existing nearby industrial development and its proximity to the Arkadelphia Municipal Airport and Missouri Southern Railroad, future development along the U.S. Route 67 corridor near the alternative location is not likely to include commercial, residential, or public service developments; therefore, the potential for minority populations and concentrations of children to be affected would be minimal.

4.13 CULTURAL RESOURCES

4.13.1 Affected Environment

Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, requires Federal agencies to identify and assess the effects of their undertakings on cultural properties included in or eligible for inclusion in the National Register of Historic Places (NRHP) and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. Federal agencies must consult with the appropriate state and local officials, including the State Historic Preservation Officer (SHPO), Indian tribes, applicants for Federal assistance, and members of the public, and consider their views and concerns about historic preservation issues. The ACHP is authorized to promulgate such rules and regulations as it deems necessary to govern the implementation of Section 106 in its entirety. Those regulations are contained in 36 CFR Part 800, "Protection of Historic Properties".

4.13.1.1 Cultural Overview

The state of Arkansas encompasses two broad archaeological areas, the Lower Mississippi Valley and the Trans-Mississippi South (Schambach and Early 1982). The project area falls with

the Middle Ouachita Region, as defined by researchers in southwestern Arkansas, which is part of the broader Trans-Mississippi South archaeological area (Schambach and Early 1982). The Middle Ouachita Region incorporates the alluvial bottomland and minor tributary drainage area of the Ouachita River in the uplands of the Gulf Coastal Plain to the east and west of the river's main stem. The northern boundary of the region is the Ouachita Mountain escarpment and the location where the river enters the Gulf Coast Plain at Malvern, Arkansas. The southern boundary is approximately at Camden, Arkansas. The eastern boundary is the divide between the Ouachita and Saline drainage basins, and the western boundary is along the divide between the Terre Noire Creek and the Little Missouri/Antoine drainage basin (Schambach and Early 1982).

Prehistoric occupation in the U.S. is generally divided into three major periods that vary regionally: the Paleo-Indian Period, the Archaic Period, and the Late Prehistoric Period. In southwestern Arkansas, the Late Prehistoric Period is comprised of the Woodland and Caddoan/Mississippian Periods. These periods are defined by the presence of particular diagnostic artifacts such as projectile points, certain types of pottery, and occasionally, particular site locations. Certain artifacts can also be used to recognize historic affiliations. The Paleoindian period in southwest Arkansas is estimated to date from 12,000 to 6,000 B.C., although archaeological evidence has not been found to support a date earlier than 10,000 B.C. Paleoindian adaptations in southwest Arkansas are assumed to be similar to those suggested for the rest of the eastern U.S. The Paleoindian lifeway consisted of small groups of hunters and gatherers who moved over the landscape, making use of the varied terminal Pleistocene/early Holocene environment (Schambach and Early 1982).

The succeeding Archaic Period (6,000 B.C. to 500 B.C.) is also poorly understood in southwest Arkansas. This period is generally marked archaeologically by a change in projectile points and the addition of new tool types. Excavated data on Archaic settlement patterns, seasonality, site function, and faunal and floral exploitation are lacking in the area, as most excavations have focused on sites dating to later periods. Large Archaic sites are less numerous than ones from later periods; however, concentration on sites of later periods is most probably a historical circumstance reflecting researchers' interest (Schambach and Early 1982).

The Woodland Period (500 B.C. to 800 A.D.) in the southeast U.S. is characterized by the widespread acceptance of ceramics into the general artifact inventory, by less mobility in

settlement patterns, and, towards the end of the period, by the introduction of the bow and arrow, along with the beginnings of agriculture. This period is sometimes referred to as “early ceramic” or, especially in the region of the Study Area, as “pre-Caddoan.” The Woodland Period in the project area is dominated by the Fourche Maline Culture. The defining characteristic of the Fourche Maline culture was a ceramic assemblage dominated by plain, flat-based, generally flower pot-shaped vessels that could be bone-tempered, grit-tempered, or grog-tempered vessels. Other widely recognized diagnostic artifacts types that were not used throughout the Fourche Maline culture include Gary projectile points of all varieties later than the Gary variety, double bitted chipped stone axes or hoes, platform-type and Poole-type tobacco pipes, and boatstones. Important nonartifactual traits of particular Fourche Maline phases include cremation burials, burial mounds, evidence of a concept of honored dead, burial of most of the dead in the village middens in flexed or extended positions in shallow graves with few or no offerings, and small villages general covering 0.8 to 2.0 hectares (ha) (Schambach 1982).

In southwestern Arkansas, the Caddoan/Mississippian Period (A.D. 800 to A.D. 1835) is more often referred to as Caddoan rather than Mississippian, for it is dominated by this particular cultural group. Caddoan culture was largely contemporary with cultures of the Mississippian tradition to the east. Many of the traits of Caddoan culture are derived from that tradition. This period is marked by the appearance of a distinctive set of cultural traits, including shell-tempered ceramics, flat-topped temple mounds, elaborate burial ceremonialism, and the cultivation of maize, beans, and squash, all of which were shared by both Caddoan and Mississippian traditions (Schambach and Early 1982).

Initial European entry into northern Louisiana and southern Arkansas came with Spanish exploration in the mid-1500s. In 1542 to 1543 remnants of the De Soto expedition explored Arkansas, including the project area, looking for gold. French Explorers Jacques Marquette and Louis Jolliet followed by René-Robert Cavelier, Sieur de La Salle explored the Mississippi River during the late seventeenth century initiating relations with the local Native Americans and laying the ground work for the initial settlement of the area. The initial settlement of the area was at the Post aux Arkansas or Arkansas Post established by French Traders and was the only real settlement during the colonial period. By the mid-eighteenth century, Arkansas was largely unsettled with the exception of trappers and some farmers (Sabo 2002). After a short period of French control following Napoleon I’s conquest of Spain, the U.S. Government acquired ownership of the territory by the Louisiana Purchase of 1803 (Whayne 2002a).

Arkansas seceded from the Union in May 1861. In Arkansas the confederates suffered several initial losses at the Battle of Pea Ridge, Battle of Prairie Grove, Battle of Arkansas Post, and Battle of Helena. Union forces took the capitol of Arkansas on September 7, 1863. Arkansas' part of the Red River Campaign of 1864 was the Camden Expedition. They were to provide a northern attack to compliment a southern attack of Shreveport. The Camden Expedition, led by Major General Frederick Steele would be plagued by limited supplies and heavy springs rains. In the end the Camden Expedition would be a failure for the Union forces and would be the last of their major operations in Arkansas till the end of the Civil War in 1865 (Deblack 2003; Joiner 2006).

Reconstruction was a tumultuous time for Arkansas as Conservative Democrats and radical Republicans vied for control of the Country. Arkansas was officially reentered into the Union in June 1868. The political turmoil of reconstruction would come to a head in 1872 with the "Brooks-Baxter War" that would result in a new constitution and now political party in charge. As Arkansas headed into the twentieth century the rail roads built during reconstruction would expand agriculture to new areas, as well as bring new industries such as mining, timber and manufacturing (Deblack 2002; Moneyhon 1997; Whyne 2002b)

4.13.1.2 Cultural Resources Investigations

A site record search was conducted at the Arkansas Archaeological Survey and it was determined that proposed action location, at the intersection of SR 26 Spur and McClellan Boulevard, had been previously surveyed in 1978 by David Kelly of the Arkansas Archaeological Survey. No archaeological sites were recorded within the parcel as a result of that survey. Additional consultation was conducted with George McCluskey of the Arkansas Historic Preservation Program via email on March 28, 2008 in order to determine if additional archaeological survey work would be needed at the proposed action location. Mr. McCluskey indicated that they had already reviewed the proposed action location at the Clark County Industrial Park, and have issued a no effect finding for the proposed AFRC location. Mr. McCluskey also indicated that no additional survey work would be necessary.

4.13.2 Environmental Consequences

4.13.2.1 Proposed Action

A previous cultural resources survey determined that no cultural material was present at the proposed AFRC location. Furthermore, consultation with the Arkansas SHPO has resulted in a

no effect finding for the proposed action (Appendix B). Therefore, no impacts on cultural resources from the construction and operation of the AFRC are anticipated.

4.13.2.2 No Action

Under the no action alternative, no additional construction, alteration or ground-altering activities would occur to the existing USARC. Therefore, no impacts on cultural resources would occur.

4.14 CUMULATIVE EFFECTS SUMMARY

This section of the EA addresses the potential cumulative impacts associated with the implementation of the alternatives and other projects/programs that are planned for the region. The CEQ defines cumulative impacts as the incremental impact of multiple present and future actions with individually minor but collectively significant effects. Cumulative impacts can be concisely defined as the total effect of multiple land uses and developments, including their interrelationships, on the environment.

The construction of a new AFRC would result in minimal impacts on individual resources, including those listed as section headings in this EA. Furthermore, the regional impacts on these resources are minimal. The South Central Plains Ecoregion of southern Arkansas has been impacted by development over the last two centuries. Much of the proposed action site has been previously disturbed through agricultural activities, and only a small area of natural vegetation communities would be impacted by the construction and operation of a new AFRC. Therefore, there would be no cumulative impacts on individual resources or ecosystems.

The human environment in Clark County and the Arkadelphia area is comprised primarily of rural communities, and has historically been dependent upon agriculture. Commercial developments and small communities serving interstate traffic between Dallas, Texas and Little Rock, Arkansas have developed along the I-30 corridor. The Clark County Industrial Council was formed in 1987 and, since that time, has contributed to beneficial growth in the area including the following achievements:

- Over 1,800 new jobs
- Over \$35 million annually in new salaries
- One of the lowest unemployment rates in Arkansas
- An expanded tax base
- An increase of over \$1.5 million per year in sales tax revenue

- A very strong real estate market
- A \$1.5 million Business Park Access Road
- A developing 41-acre Business Park
- The Southwest Arkansas Technology Learning Center
- Over 50 percent increase in real and personal property assessment (Clark County Industrial Council 2007)

The Clark County Industrial Council was formed in response to a loss of jobs and industry and generally poor socioeconomic conditions occurring in the 1980s. Although development and growth have improved over the last 20 years, Clark County continues to grow at a relatively slow pace and supports an aging population. Between 1990 and 2000, population growth in Clark County (9.8 percent) was lower than that of the state (13.7 percent), and the proportion of the population over the age of 65 was higher than the state average (USCB 2000a).

4.14.1 Proposed Action

The construction and operation of a new AFRC, in combination with other projects and developments in the Arkadelphia area, would not result in substantial cumulative effects on individual resources or to ecosystems. The site is situated within the Clark County Industrial Park, which covers 313 acres and is developed for industry with sites from 4.5 acres to 26.5 acres. The park has 550 feet of highway frontage on U.S. Highway 67, and is within 2 miles of an interchange with I-30. Located along the east boundary of the park is the Missouri-Pacific Railroad mainline track, running from St. Louis, Missouri to Texas. The Arkadelphia Municipal Airport, with a newly completed 5,000-foot runway, is only 4 miles away. The park has a sanitary waste disposal system, a 500,000 gallon water storage tank, natural gas, and is served by a 115 kilovolt electrical transmission line. All utilities are available to accommodate industry seeking to locate in the Clark County Industrial Park, including the AFRC. Construction and operation of the AFRC would comply with all Restrictive Covenants of the Clark County Industrial Park. As part of planned developments, the construction and operation of the AFRC would have beneficial cumulative impacts on sustainable growth in Clark County and the Arkadelphia area.

4.14.2 No Action

The operation of the USARC currently has minimal direct effects on traffic. By precluding the development of the site to a more compatible land use, the continued operation of the USARC indirectly affects economic development.

4.15 MITIGATION

This section of the EA describes those measures that will be implemented to reduce or eliminate potential adverse impacts on the human and natural environment. The environmental protective measures are presented for each resource category that could be potentially affected. These proposed measures will be coordinated through the appropriate land managers and administrators, and regulatory agencies.

4.15.1 Water

The CWA regulates the discharge of pollutants directly to surface waters by requiring a NPDES permit for construction sites greater than 1 acre in size. In order to obtain coverage under the General Construction Permit (Order No. 99-08-DWQ), a Waste Discharge Identification Number will be obtained, and an effective site-specific SWPPP incorporating standard BMPs will be developed. The site-specific SWPPP will identify potential on-site pollutants, and identify and implement an effective combination of erosion control and sediment control BMPs to reduce or eliminate discharge of pollutants to surface water during construction and post-construction. BMP examples include: detention basins for capture and containment of sediments, use of silt fencing, sandbags or weed-free straw bales to control runoff, and identification of emergency procedures in case of hazardous materials spills. With the implementation of BMPs, potential impacts on water resources would be minimal.

A potentially jurisdictional wetland would be impacted during the construction of the AFRC. If the wetland is determined to be jurisdictional, a Section 404 permit from the USACE, Vicksburg District and 401 Water Quality Certification from the Arkansas Department of Environmental Quality would be required prior to the placement of any fill within the wetland area, and mitigation implemented as appropriate.

4.15.2 Soil

A SWPPP developed for the site will include measures to minimize potential soil loss during construction and operation of the AFRC. Implementation of BMPs during construction will greatly reduce the amount of soil lost to runoff during heavy rain events. Where necessary, erosion control BMPs will include waterbars, gabions, hay bales, and reseeded during and after construction activities. In accordance with Section 7(c)(1) of the ESA, native plant seeds will be used for any necessary re-seeding activities in those areas that will not be landscaped or

routinely maintained. If hay bales are used, they will be free of weed seed to avoid introduction or expansion of invasive or noxious weeds.

4.15.3 Air Quality

As mentioned previously, emissions associated with construction activities would be insignificant. Proper and routine maintenance of all vehicles and other equipment will be implemented to ensure that emissions are within the design standards of all construction equipment. Dust suppression methods will be implemented to minimize fugitive dust.

4.15.4 Vegetation and Wildlife

Native seeds or plants, which are compatible with the enhancement of protected species, will be used to the extent feasible, as required under Section 7(a)(1) of the ESA, to reseed temporarily disturbed areas once construction is complete. The Migratory Bird Treaty Act will be considered in planning for construction activities.

Additional protective measures will include BMPs, as described previously, during construction to minimize or prevent erosion and soil loss. If straw bales are used as part of the BMPs, weed seed-free straw bales will be used to eliminate the potential of spreading invasive species.

4.15.5 Hazardous and Toxic Substances

Hazardous and toxic materials/wastes in the project area during construction would likely consist of POL. If hazardous waste is generated, it will be disposed of according to Federal, state and local regulations, as well as existing Army regulations and procedures. No maintenance of construction equipment will be conducted on-site, minimizing the potential for spills or direct contact with POL. Equipment and vehicles parked overnight, or left for lengthy periods on site, will be fitted with drip pans. On-site use of construction equipment, use of chemical products, and wastes generated during construction will comply with all Federal, state, and local regulations relating to protecting the environment from hazardous materials and containing spills. There is the potential for hazardous wastes, such as POL, solvents and cleaners to be stored on the site. There will be a site specific SPCCP that describes what actions should be taken in case of a hazardous or toxic spill.

4.15.6 Cultural Resources

If any cultural resources are uncovered during construction, the Arkansas SHPO will be notified, and all construction activities will stop until a qualified archaeologist can assess the significance of the cultural remains.

SECTION 5.0
FINDINGS AND CONCLUSIONS



5.0 FINDINGS AND CONCLUSIONS

5.1 FINDINGS

5.1.1 Consequences of the Proposed Action

The proposed action would result in the permanent conversion of 10 acres of agricultural field to an AFRC. The loss of 10 acres of soils would be minimal in comparison to the abundance of these soil types and the general lack of development in Clark County. A site specific SWPPP, a SPCCP, and the implementation of BMPs would ensure that any pollutants generated or handled as a result of construction and operation would be minimized. No sensitive or rare vegetation communities or Federal or state protected species would be affected. Temporary increases in noise would be expected during construction and permanent increase in noise levels resulting from operation would be minimal. Most of the increased traffic associated with the new AFRC would occur on weekends when other traffic is typically reduced. Slight benefits for local and regional employment and personal income would be expected during the construction. Operation of the AFRC would not overburden utilities providers, and would not require the extension of utilities. A 0.69 acre potentially jurisdictional wetland would be filled as a result of AFRC construction.

5.2 CONCLUSIONS

Based on the information presented in the previous sections, it is concluded that the best available site for the proposed construction and operation of the AFRC is at the proposed location, and that development of this site would result in insignificant adverse impacts on the area's human and natural environment. Therefore, issuance of a FNSI is warranted and no additional NEPA documentation (i.e., Environmental Impact Statement) is required.

Table 5-1. Summary Matrix of Potential Impacts

Affected Resource	No Action	Proposed Action
Water Resources	No impacts to water resources would occur.	A SWPPP would limit potential impacts to water quality.
Soils	No impacts to soils would occur.	Approximately 10 acres of soil would be disturbed and permanently removed from potential biological productivity. A SWPPP would limit soil loss to erosion. No Prime Farmland soils would be impacted.
Air Quality	No additional emissions would be created.	Minor temporary effects to air quality during construction would occur.
Biological Resources	No impacts to biological resources would occur.	The disturbance of 10 acres of agricultural field would have minimal impacts on common vegetation and wildlife. No sensitive or rare vegetation or wildlife would be affected. A 0.69-acre potentially jurisdictional wetland would be filled.
Land Use	There would be no change in land use at the existing USARC.	The conversion of 10 acres of agricultural field to an AFRC would result in no impacts to land use because the Proposed Action site is located in an Industrial Park and the land is zoned for industrial development.
Transportation	Continued operation of the USARC would minimally affect access to the Arkadelphia Municipal Airport.	Construction and operation of the AFRC could result in minimal impacts to traffic during weekends. The Proposed Action site is located in an Industrial Park with multiple points of access to nearby highways.
Utilities	No additional use of utilities would occur.	Use of utilities would not increase substantially.
Noise	Noise generated from the existing USARC is less than that generated by the adjacent airport, highway, railroad, and industrial park.	Minor temporary increases in ambient noise levels during construction. Pre-project conditions would return upon cessation of construction activities. Construction would be limited to daylight hours only. Due to the distance to other noise receptors, construction noise would be attenuated. Operation of the facility would create insignificant increase in noise over the current conditions.
Hazardous and Toxic Substances	Crowded conditions at the USARC could increase the potential for accidental spills or mishandling of hazardous materials.	POLs would be stored and handled on site. Solvents and cleaners could be stored at the vehicle maintenance shop. Potential impacts would be minimized through the development of a SPCCP.
Aesthetics and Visual Resources	Due to surrounding development, the USARC does not detract from aesthetics.	Development would occur adjacent to existing industrial and commercial development, and would only minimally affect aesthetics.
Socioeconomic Resources	Continued operation of the USARC would preclude beneficial effects to socioeconomics.	Temporary beneficial effects would result due to construction. Operation of the AFRC would not have any substantial benefits and would not adversely affect socioeconomics.
Cultural Resources	No impacts to cultural resources would occur.	No impacts are expected.

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6.0 LIST OF PREPARERS

The following people were primarily responsible for preparing this EA.

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7.0 DISTRIBUTION LIST

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SECTION 8.0
REFERENCES



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9.0 PERSONS CONSULTED

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SECTION 10.0
ACRONYMS AND ABBREVIATIONS

10.0 ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
AFRC	Armed Forces Reserve Center
AR	Army Regulations
AT/FP	Anti-Terrorism/Force Protection
BCT	Brigade Combat Team
BEA	Bureau of Economic Analysis
BMP	best management practices
BRAC Commission	Defense Base Closure and Realignment Commission
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
dB	decibels
dBA	decibels A-weighted scale
DNL	Day-Night Level
DoD	Department of Defense
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FFPA	Farmland Protection Policy Act
FNSI	Finding of No Significant Impact
FY	Fiscal Year
GIS	Geographic Information System
HVAC	heating, ventilation, and air conditioning
I-30	Interstate 30
IAP	Installation Action Plan
IGPBS	Integrated Global Presence and Basing Strategy
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NDPDES	National Pollutant Discharge Elimination System
NHPA	National Historic Preservation Act
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
PCPI	per capita personal income
PL	Public Law
POL	petroleum, oils, and lubricants
PM-2.5	particulate matter less than 2.5 microns
PM-10	particulate matter less than 10 microns
ROI	region of influence
RRC	Regional Readiness Command
SF	square feet
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SPCCP	Spill Pollution Control and Countermeasures Plan

SR	State Route
SUA	Support Units of Action
SWPPP	Stormwater Pollution Prevention Plan
TPI	total personal income
UA	units of action
UE	units of employment
U.S.	United States
USACE	U.S. Army Corps of Engineers
USARC	U.S. Army Reserve Center
USC	United States Code
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Service
USFWS	U.S. Fish and Wildlife Service

APPENDIX A
Air Emissions Calculations

CALCULATION SHEET-COMBUSTABLE EMISSIONS

Assumptions for Combustable Emissions						
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs	
Water Truck	1	300	10	240	720000	
Diesel Compactors	1	100	10	240	240000	
Diesel Dump Truck	2	300	10	240	1440000	
Diesel Excavator	1	300	10	240	720000	
Diesel Hole Cleaners/Trenchers	1	175	10	240	420000	
Diesel Bore/Drill Rigs	0	300	10	240	0	
Diesel Cement & Mortar Mixers	3	300	10	240	2160000	
Diesel Cranes	3	175	10	240	1260000	
Diesel Graders	1	300	10	240	720000	
Diesel Tractors/Loaders/Backhoes	1	100	10	240	240000	
Diesel Bull Dozers	1	300	10	240	720000	
Diesel Front End Loaders	2	300	10	240	1440000	
Diesel Fork Lifts	4	100	10	240	960000	
Diesel Generator Set	4	40	10	240	384000	

Type of Construction Equipment	Emission Factors						
	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Water Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Road Compactors	0.370	1.480	4.900	0.340	0.330	0.740	536.200
Diesel Dump Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Excavator	0.340	1.300	4.600	0.320	0.310	0.740	536.300
Diesel Trenchers	0.510	2.440	5.810	0.460	0.440	0.740	535.800
Diesel Bore/Drill Rigs	0.600	2.290	7.150	0.500	0.490	0.730	529.700
Diesel Cement & Mortar Mixers	0.610	2.320	7.280	0.480	0.470	0.730	529.700
Diesel Cranes	0.440	1.300	5.720	0.340	0.330	0.730	530.200
Diesel Graders	0.350	1.360	4.730	0.330	0.320	0.740	536.300
Diesel Tractors/Loaders/Backhoes	1.850	8.210	7.220	1.370	1.330	0.950	691.100
Diesel Bull Dozers	0.360	1.380	4.760	0.330	0.320	0.740	536.300
Diesel Front End Loaders	0.380	1.550	5.000	0.350	0.340	0.740	536.200
Diesel Fork Lifts	1.980	7.760	8.560	1.390	1.350	0.950	690.800
Diesel Generator Set	1.210	3.760	5.970	0.730	0.710	0.810	587.300

CALCULATION SHEET-COMBUSTABLE EMISSIONS

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations									
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr		
Water Truck	0.349	1.642	4.356	0.325	0.317	0.587	425.284		
Diesel Road Paver	0.098	0.391	1.296	0.090	0.087	0.196	141.814		
Diesel Dump Truck	0.698	3.285	8.712	0.651	0.635	1.174	850.568		
Diesel Excavator	0.270	1.031	3.650	0.254	0.246	0.587	425.522		
Diesel Trenchers	0.236	1.129	2.689	0.213	0.204	0.343	247.990		
Diesel Bore/Drill Rigs	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Diesel Cement & Mortar Mixers	1.452	5.522	17.329	1.143	1.119	1.738	1260.856		
Diesel Cranes	0.611	1.805	7.942	0.472	0.458	1.014	736.193		
Diesel Graders	0.278	1.079	3.753	0.262	0.254	0.587	425.522		
Diesel Tractors/Loaders/Backhoes	0.489	2.171	1.910	0.362	0.352	0.251	182.782		
Diesel Bull Dozers	0.286	1.095	3.777	0.262	0.254	0.587	425.522		
Diesel Front End Loaders	0.603	2.460	7.934	0.555	0.540	1.174	850.885		
Diesel Aerial Lifts	2.095	8.209	9.056	1.471	1.428	1.005	730.811		
Diesel Generator Set	0.512	1.591	2.526	0.309	0.300	0.343	248.527		
Total Emissions	7.976	31.413	74.930	6.368	6.194	9.586	6952.275		

Conversion factors	
Tons to grams	1.102E-06

CALCULATION SHEET-TRANSPORTATION COMBUSTABLE EMISSIONS

Construction Worker Personal Vehicle Commuting to Construction Sight-Passenger and Light Duty Trucks									
Pollutants	Emission Factors			Assumptions			Results by Pollutant		
	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	60	240	25	25	0.54	0.64	1.18
CO	12.4	15.7	60	240	25	25	4.92	6.23	11.15
NOx	0.95	1.22	60	240	25	25	0.38	0.48	0.86
PM-10	0.0052	0.0065	60	240	25	25	0.00	0.00	0.00
PM 2.5	0.0049	0.006	60	240	25	25	0.00	0.00	0.00

Heavy Duty Trucks Delivery Supply Trucks to Construction Sight									
Pollutants	Emission Factors			Assumptions			Results by Pollutant		
	10,000-19,500 lb Delivery Truck	33,000-60,000 lb semi trailer rig	Mile/day	Day/yr	Number of Delivery trucks	Number of trucks	Total Emissions Delivery Trucks tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	60	120	10	10	0.02	0.04	0.07
CO	1.32	3.21	60	120	10	10	0.10	0.25	0.36
NOx	4.97	12.6	60	120	10	10	0.39	1.00	1.39
PM-10	0.12	0.33	60	120	10	10	0.01	0.03	0.04
PM 2.5	0.13	0.36	60	120	10	10	0.01	0.03	0.04

Employee Commute to New Site									
Pollutants	Emission Factors			Assumptions			Results by Pollutant		
	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	60	240	0	0	-	0.00	-
CO	12.4	15.7	60	240	0	0	-	0.00	-
NOx	0.95	1.22	60	240	0	0	-	0.00	-
PM-10	0.0052	0.0065	60	240	0	0	-	0.00	-
PM 2.5	0.0049	0.006	60	240	0	0	-	0.00	-

POV Source: USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway vehicle emission factor model.
 Fleet Characterization: 20 POVs commuting to work were 50% are pick up trucks and 50% passenger cars

CALCULATION SHEET-TRANSPORTATION COMBUSTABLE EMISSIONS

Conversion factor:	gms to tons
	0.000001102

CALCULATION SHEET-FUGITIVE DUST

Fugitive Dust Emissions at New Construction Site.					
Construction Site	Emission Factor tons/acre/month (1)	Total Area-Construction Site	Months/yr	Total PM-10 Emissions tns/yr	Total PM-2.5 (2)
	0.11	10.00	6	6.60	1.32

1. Midwest Research Institute. Improvement of Specific Emission Factors (BACM Project No. 1) Prepared for South Coast Air Quality Management District. SCAQMD Contract 95040, Diamond Bar, CA. March 1996.

2. 20% of the total PM-10 emissions are PM-2.5 (EPA 2006).

Construction Site Area	Dimension (ft)		Total Acres
	Length	Width	
Proposed Project			
Area Disturbed During Construction			10.00
NA			0.00
Total			10.00

Conversion Factors	Feet to Miles	Acres to sq ft	Sq ft to acres	Sq ft in 0.5 acres
	5280	0.000022957	43560	21780

Length of new road (miles)

0

CALCULATION SHEET-SUMMARY OF EMISSIONS

Proposed Action Construction Emissions for Criteria Pollutants (tons per year)							
Emission source	VOC	CO	NOx	PM-10	PM-2.5	SO ₂	
Combustable Emissions	7.98	31.41	74.93	6.37	6.19	9.59	
Construction Site-fugitive PM-10	NA	NA	NA	6.60	1.32	NA	
Construction Workers Commuter & Trucking	1.24	11.51	2.25	0.04	0.04	NA	
Employee Commute to Work	0.00	0.00	0.00	0.00	0.00	NA	
Total emissions	9.22	42.92	77.18	13.01	7.56	9.59	
De minimis threshold	NA	NA	NA	NA	NA	NA	

APPENDIX B
Correspondence



United States Department of Agriculture



Natural Resources Conservation Service
351 Washington Street, Room 206 Federal Building
Camden, Arkansas 71707

Date: August 1, 2007

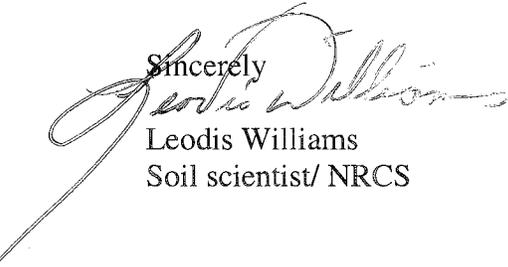
Mr. Michael Hodson
8081 GSRI Avenue
Baton Rouge LA 70820

Mr. Hodson

This letter is in response to your request in Clark County, Arkansas, fine enclosed the information you requested.

If I can be of any further assistance to you concerning this information feel free to contact me any time at 870-836-2089 ext 106

Sincerely



Leodis Williams
Soil scientist/ NRCS

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency) Date Of Land Evaluation Request 6/26/07

Name Of Project Arkadelphia AFRC Federal Agency Involved Mobile District, U.S. Army Corps of Engineers

Proposed Land Use Armed Forces Readiness Center County And State Clark County, Arkansas

PART II (To be completed by NRCS) Date Request Received By NRCS 07/26/07

Does the site contain prime, unique, statewide or local important farmland?
(If no, the FPPA does not apply -- do not complete additional parts of this form). Yes No Acres Irrigated 0 Average Farm Size 0

Major Crop(s) Soybean Farmable Land In Govt. Jurisdiction Acres: 309.830 % 54.8 Amount Of Farmland As Defined in FPPA Acres: 293.050 % 51.8

Name Of Land Evaluation System Used LESA Name Of Local Site Assessment System None Date Land Evaluation Returned By NRCS 08/01/07

PART III (To be completed by Federal Agency)

	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	10.0	10.0		
B. Total Acres To Be Converted Indirectly	0.0	0.0		
C. Total Acres In Site	10.0	10.0	0.0	0.0

PART IV (To be completed by NRCS) Land Evaluation Information

A. Total Acres Prime And Unique Farmland	<u>10</u>	<u>0</u>		
B. Total Acres Statewide And Local Important Farmland	<u>0</u>	<u>0</u>		
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	<u>0.0000322</u>	<u>0.0000322</u>		
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	<u>52.2</u>	<u>52.2</u>		

PART V (To be completed by NRCS) Land Evaluation Criterion
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)

	0	<u>83</u>	0	<u>83</u>	0	0
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PART VI (To be completed by Federal Agency)
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))

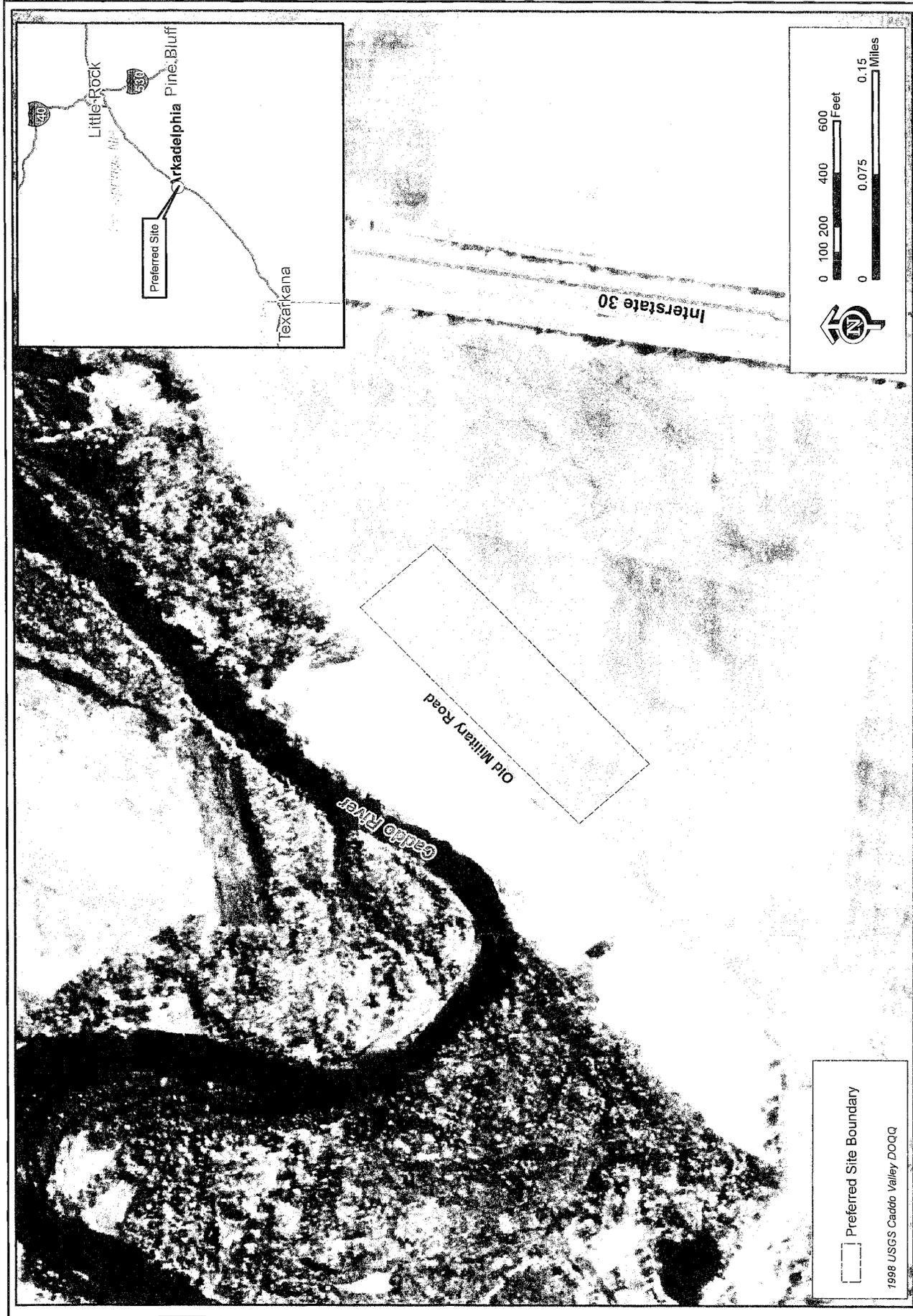
	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Nonurban Use	<u>15</u>	<u>15</u>	<u>5</u>		
2. Perimeter In Nonurban Use	<u>10</u>	<u>10</u>	<u>3</u>		
3. Percent Of Site Being Farmed	<u>20</u>	<u>20</u>	<u>10</u>		
4. Protection Provided By State And Local Government	<u>20</u>	<u>0</u>	<u>0</u>		
5. Distance From Urban Builtup Area	<u>15</u>	<u>15</u>	<u>0</u>		
6. Distance To Urban Support Services	<u>15</u>	<u>10</u>	<u>0</u>		
7. Size Of Present Farm Unit Compared To Average <i>2.5 acres</i>	<u>10</u>	<u>10</u>	<u>0</u>		
8. Creation Of Nonfarmable Farmland	<u>10</u>	<u>0</u>	<u>0</u>		
9. Availability Of Farm Support Services	<u>5</u>	<u>5</u>	<u>5</u>		
10. On-Farm Investments	<u>20</u>	<u>5</u>	<u>0</u>		
11. Effects Of Conversion On Farm Support Services	<u>10</u>	<u>0</u>	<u>0</u>		
12. Compatibility With Existing Agricultural Use	<u>10</u>	<u>0</u>	<u>0</u>		
TOTAL SITE ASSESSMENT POINTS	160	0	90	0	0

PART VII (To be completed by Federal Agency)

Relative Value Of Farmland (From Part V)	100	0	<u>83</u>	0	<u>83</u>	0	0
Total Site Assessment (From Part VI above or a local site assessment)	160	0	<u>90</u>	0	<u>90</u>	0	0
TOTAL POINTS (Total of above 2 lines)	260	0	173	0	173	0	0

Site Selected: Site A Date Of Selection 8/10/07 Was A Local Site Assessment Used? Yes No

Reason For Selection:

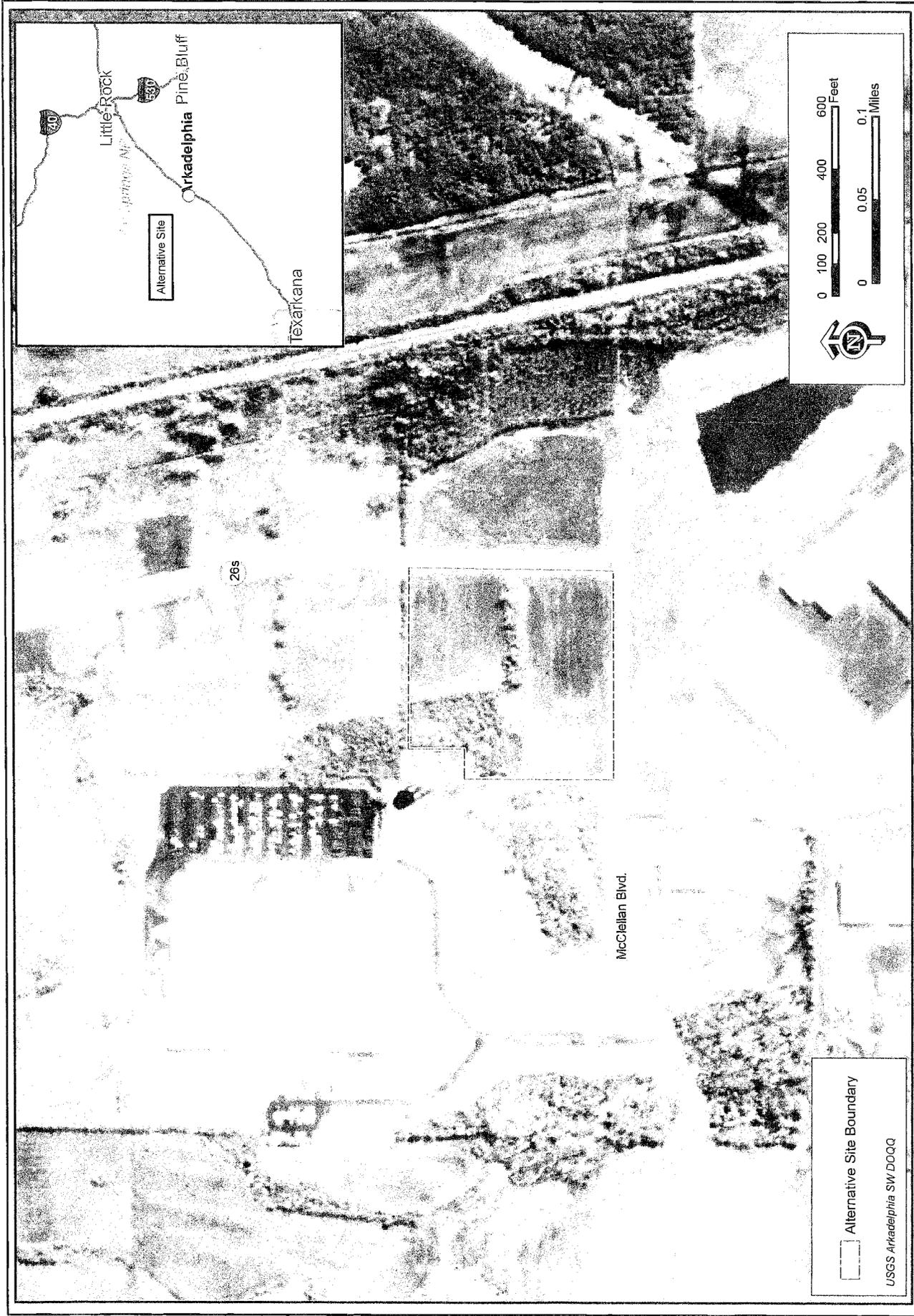


 Preferred Site Boundary
 1998 USGS Caddo Valley DOQQ

Site A



Date: May 2007



Alternative Site Boundary
 USGS Arkadelphia SW DOQQ



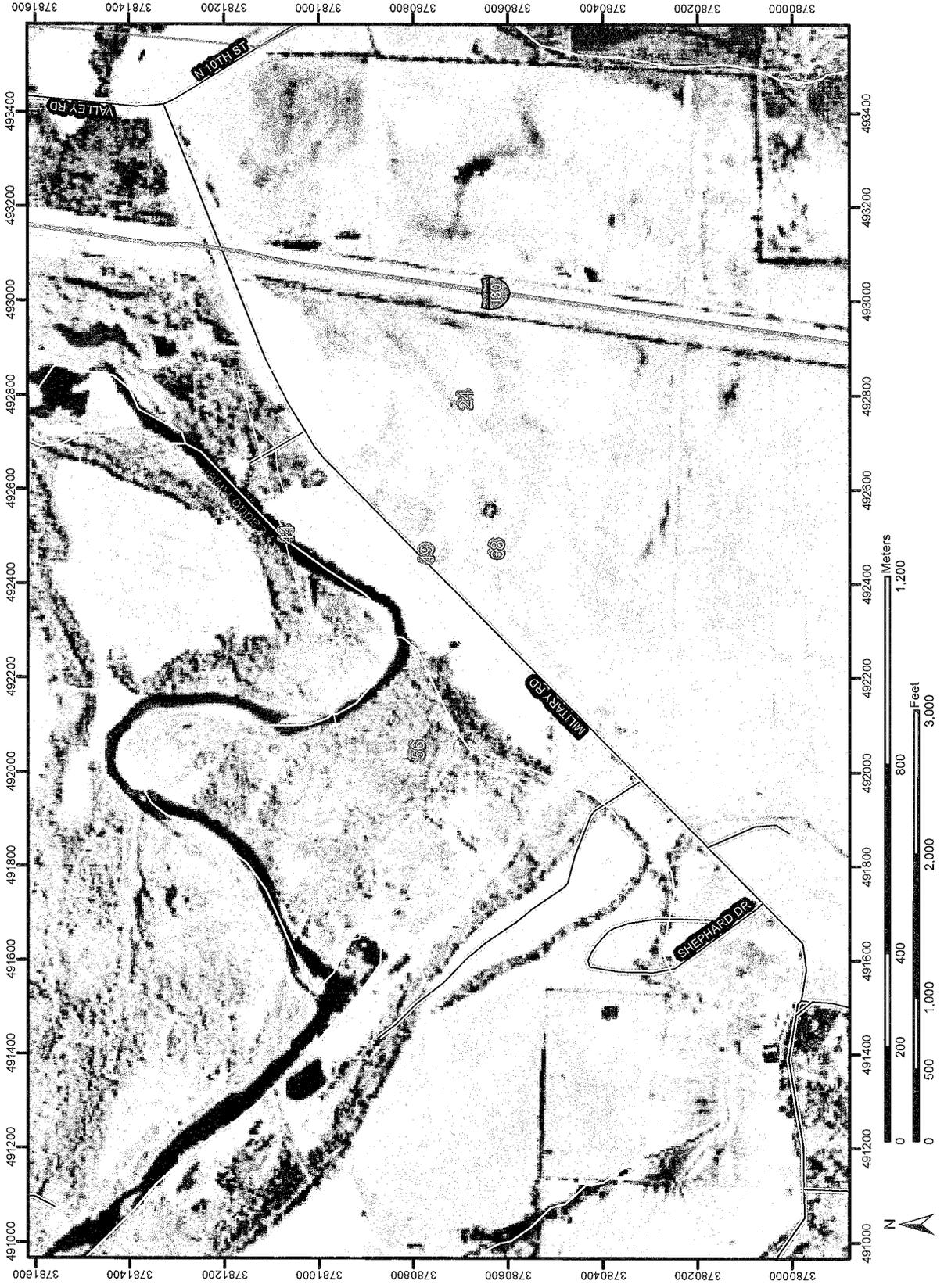
0 100 200 400 600 Feet
 0 0.05 0.1 Miles

Site B



Date: May 2007

Soil Map—Clark and Hot Spring Counties, Arkansas
(U.S. Army Corps of Engineers)



Natural Resources
Conservation Service

Web Soil Survey 2.0
National Cooperative Soil Survey

Prime and other Important Farmlands

Clark and Hot Spring Counties, Arkansas

Map symbol	Map unit name	Farmland classification
49	Ouachita silt loam, occasionally flooded	All areas are prime farmland
68	Sardis silt loam, occasionally flooded	All areas are prime farmland

MAP LEGEND

	Area of Interest (AOI)		Very Stony Spot
	Soils		Wet Spot
	Soil Map Units		Other
Special Point Features			
	Blowout		Gully
	Borrow Pit		Short Steep Slope
	Clay Spot		Other
	Closed Depression	Political Features	
	Gravel Pit	Municipalities	
	Gravelly Spot		Cities
	Landfill		Urban Areas
	Lava Flow	Water Features	
	Marsh		Oceans
	Mine or Quarry		Streams and Canals
	Miscellaneous Water	Transportation	
	Perennial Water		Rails
	Rock Outcrop		Roads
	Saline Spot		Interstate Highways
	Sandy Spot		US Routes
	Severely Eroded Spot		State Highways
	Sinkhole		Local Roads
	Slide or Slip		Other Roads
	Sodic Spot		
	Spoil Area		
	Stony Spot		

MAP INFORMATION

Original soil survey map sheets were prepared at publication scale. Viewing scale and printing scale, however, may vary from the original. Please rely on the bar scale on each map sheet for proper map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

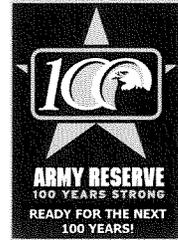
Soil Survey Area: Clark and Hot Spring Counties, Arkansas
Survey Area Data: Version 6, Dec 30, 2006

Date(s) aerial images were photographed: 1994

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205



May 21, 2008

Reply to Attention of Environmental Division

Martin Manner
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118

Dear Mr. Manner:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to accommodate the training missions for five Army Reserve Units and one Army National Guard Unit at a new Armed Forces Reserve Center (AFRC) in Arkadelphia, Arkansas.

A new facility will be required to provide for unit maintenance training, unit storage, and parking of military and privately-owned vehicles for the Reserve and Guard units assigned to the new AFRC. The AFRC would include administrative, assembly, educational, storage, special training, library, and support areas with a total of 69,437 square feet of building space. Parking facilities would also be incorporated into the design. The total amount of disturbed area is expected to be approximately 10 acres, and the entire 10 acres would be surrounded by chain-link security fencing. No additional weapons systems or demands on training ranges are required for the proposed action.

Eleven sites were initially evaluated in the vicinity of Arkadelphia for their suitability for the AFRC. It was determined that two of the sites (the proposed action site and the originally preferred site) were considered suitable for the construction of the AFRC in the vicinity of Arkadelphia because they fully met the evaluation criteria, such as proximity to utilities and police and fire service, visibility to the community, accessibility, and availability of the land. However the originally preferred site, which is located on Old Military Road west of Interstate 30 (I-30), was evaluated in more detail including surveys for the presence of cultural resources, and it was determined that the site contained deeply buried cultural material that could be disturbed from construction of an AFRC. Therefore, because of the potential impacts to these highly sensitive resources, the originally preferred site was dismissed from further evaluation.

The proposed action site is located at the intersection of State Route 26 Spur and McClellan Boulevard east of I-30, within a vacant parcel of the Clark County Industrial Park that is currently used for agricultural purposes. The U.S. Army Corps of Engineers (USACE),

Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at the proposed action site.

A figure showing the location of the proposed action site is enclosed. The majority of the proposed action site has been under agricultural production for many years, and the soils have been highly disturbed from agricultural activities. Approximately 1.5 acres of wooded lands are located on the proposed action site and are dominated by honey locust (*Gleditsia tricanthos*), persimmon (*Diospros virginiana*) and American hornbeam (*Carpinus caroliniana*). Additionally, 0.69 acres of wetlands are present on the parcel.

We are currently in the process of gathering the most current information available for this area. The USACE, Mobile District respectfully requests that your agency provide input regarding water resources potentially occurring within this area of Clark County that you believe should be addressed in the EA. We will send you a copy of the EA when it is released to the public, which is currently anticipated to occur in late August. If you have any questions, please do not hesitate to call me at (501) 771-7992.

Sincerely,

A handwritten signature in black ink, appearing to read "James Wheeler II". The signature is fluid and cursive, with a large initial "J" and "W".

James Wheeler II
Chief, Environmental Division
90th Regional Readiness Command

Enclosure

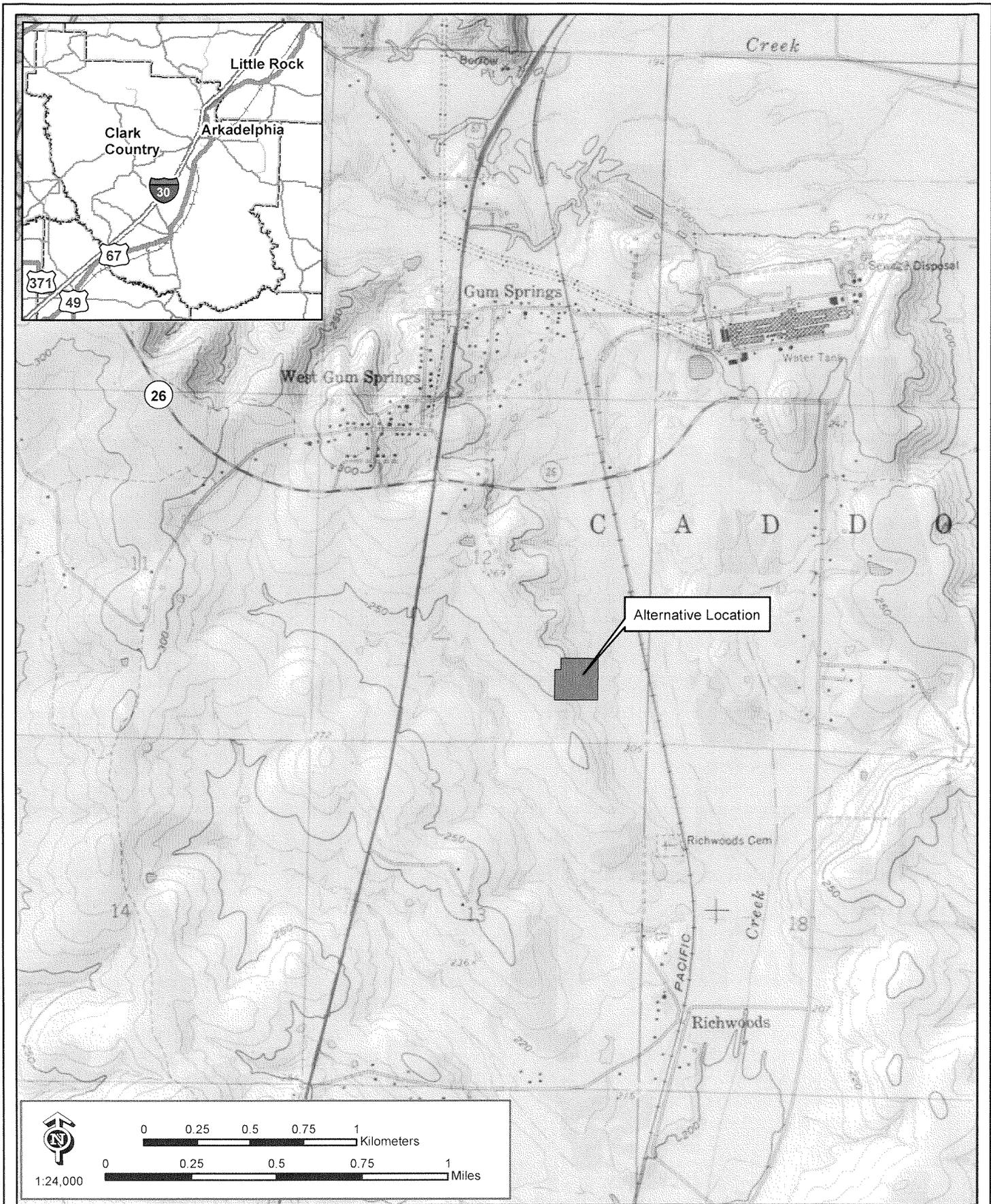
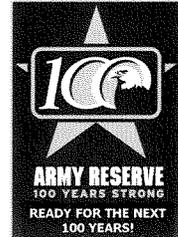


Figure 1: BRAC Alternative Location "B"



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205



May 21, 2008

Reply to Attention of Environmental Division

Doyle Shook
Arkansas Game and Fish Commission
Wildlife Management Division
2 Natural Resources Drive
Little Rock, Arkansas 72205

Dear Mr. Shook:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to accommodate the training missions for five Army Reserve Units and one Army National Guard Unit at a new Armed Forces Reserve Center (AFRC) in Arkadelphia, Arkansas.

A new facility will be required to provide for unit maintenance training, unit storage, and parking of military and privately-owned vehicles for the Reserve and Guard units assigned to the new AFRC. The AFRC would include administrative, assembly, educational, storage, special training, library, and support areas with a total of 69,437 square feet of building space. Parking facilities will also be incorporated into the design. The total amount of disturbed area is expected to be approximately 10 acres, and the entire 10 acres would be surrounded by chain-link security fencing. No additional weapons systems or demands on training ranges are required for the proposed action.

Eleven sites were initially evaluated in the vicinity of Arkadelphia for their suitability for the AFRC. It was determined that two of the sites (the proposed action site and the originally preferred site) were considered suitable for the construction of the AFRC in the vicinity of Arkadelphia because they fully met the evaluation criteria, such as proximity to utilities and police and fire service, visibility to the community, accessibility, and availability of the land. However the originally preferred site, which is located on Old Military Road west of Interstate 30 (I-30), was evaluated in more detail including surveys for the presence of cultural resources, and it was determined that the site contained deeply buried cultural material that could be disturbed from construction of an AFRC. Therefore, because of the potential impacts to these highly sensitive resources, the originally preferred site was dismissed from further evaluation.

The proposed action site is located at the intersection of State Route 26 Spur and McClellan Boulevard east of I-30, within a vacant parcel of the Clark County Industrial Park that is currently used for agricultural purposes. The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at the proposed action site.

An endangered species list for Clark County was provided by Jennifer Ballard, U.S. Fish and Wildlife Service on May 29, 2007. Eight Federally listed species have the potential to occur in Clark County, Arkansas as shown in Table 1. Additionally, bald eagles (*Haliaeetus leucocephalus*) are known to winter at DeGray Lake, approximately 6 miles north of the proposed action site. The mussel species are found in deep pools or backwater areas of stream channels with sand, sand-gravel, or sand-cobble substrate, and likely occur in the Ouachita River. However, the proposed action would have no impacts to the Ouachita River or its tributaries. There are no mature pine forests on or near the proposed action site; therefore there is no suitable habitat for the red-cockaded woodpecker (*Picoides borealis*). Clark County is part of the historic range of the Florida panther (*Puma concolor coryi*). Florida panthers currently only occur in south Florida and the proposed action site is outside of their present range.

Table 1. Federally Listed and Proposed Species for Clark County, Arkansas

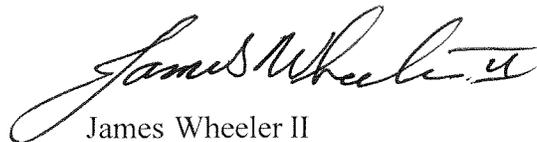
Common/Scientific Name	Federal Status	Preferred Habitat
INVERTEBRATES		
Arkansas fatmucket <i>Lampsilis powelli</i>	Threatened	Occurs in deep pools and backwater areas with various substrates.
Ouachita rock pocketbook <i>Arkansia wheeleri</i>	Endangered	Occurs in pools with a cobble-gravel bottom or backwater with a gravel-sand bottom.
Pink mucket <i>Lampsilis abrupta</i>	Endangered	Occurs in shallow riffles and shoals free of silt.
Scaleshell <i>Leptodea leptodon</i>	Endangered	Occurs in medium and large sized rivers with stable channels.
Spectaclecase <i>Cumberlandia monodonta</i>	Candidate	Occurs in large rivers in shallow riffles and shoals with various substrates.
Winged mapleleaf <i>Quadrula fragosa</i>	Endangered	Occurs in riffles with gravel, sand or rubble bottoms.
BIRDS		
Red-cockaded woodpecker <i>Picoides borealis</i>	Endangered	Inhabits open pine forest especially longleaf pine forests, maintained by frequent fires.
MAMMALS		
Florida panther <i>Puma concolor coryi</i>	Endangered	Historic range included Lower Mississippi Valley including Arkansas.

A figure showing the location of the proposed action site, which is being evaluated for the construction of the AFRC, is enclosed. The majority of the proposed action site has been under agricultural production for many years, and the soils have been highly disturbed from agricultural activities. Approximately 1.5 acres of wooded lands are located on the proposed action site and are dominated by honey locust (*Gleditsia tricanthos*), persimmon (*Diospros virginiana*) and American hornbeam (*Carpinus caroliniana*). The proposed action site is not located near the

Caddo or Ouachita Rivers; however 0.69 acres of wetlands are present on the parcel. Based on the lack of suitable habitat for any listed species at the proposed action site, and the use of best management practices to control sediment in storm water runoff to tributaries of the Ouachita River during construction, we have determined that the development of the AFRC would have no effect on any listed species.

We respectfully ask that you provide written concurrence with our determination. We would appreciate your prompt attention and response. If you have any questions, please do not hesitate to call me at (501) 771-7992.

Sincerely,

A handwritten signature in cursive script, reading "James Wheeler II".

James Wheeler II
Chief, Environmental Division
90th Regional Readiness Command

Enclosure

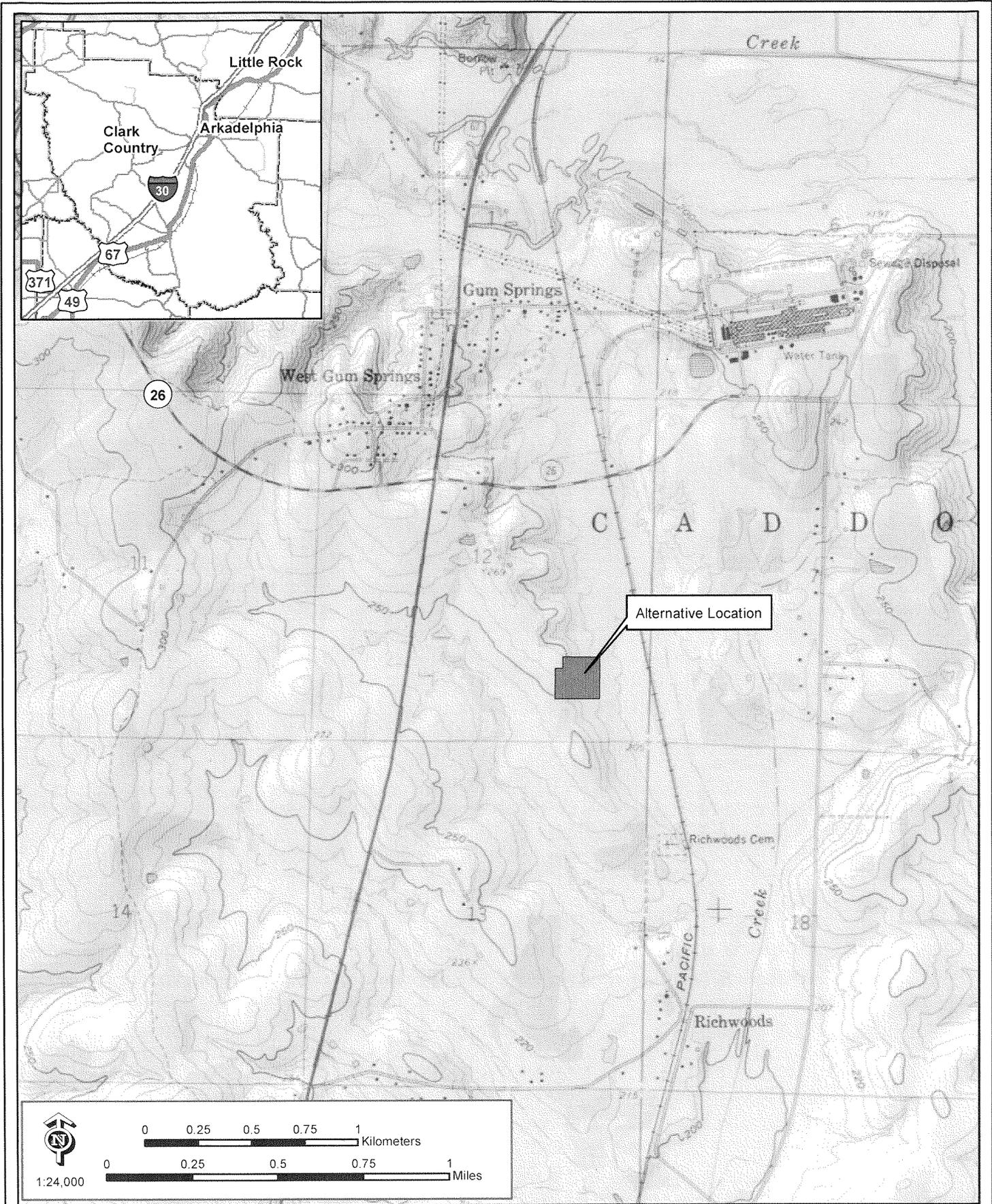
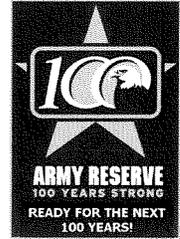


Figure 1: BRAC Alternative Location "B"



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205



May 21, 2008

Reply to Attention of Environmental Division

Alan Meadors
Arkansas State Highway and Transportation Department
Planning and Research Division
10324 Interstate 30
Little Rock, Arkansas 72209

Dear Mr. Meadors:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to accommodate the training missions for five Army Reserve Units and one Army National Guard Unit at a new Armed Forces Reserve Center (AFRC) in Arkadelphia, Arkansas.

A new facility will be required to provide for unit maintenance training, unit storage, and parking of military and privately-owned vehicles for the Reserve and Guard units assigned to the new AFRC. The AFRC would include administrative, assembly, educational, storage, special training, library, and support areas with a total of 69,437 square feet of building space. Parking facilities would also be incorporated into the design. The total amount of disturbed area is expected to be approximately 10 acres, and the entire 10 acres would be surrounded by chain-link security fencing. No additional weapons systems or demands on training ranges are required for the proposed action.

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The proposed action site is located at the intersection of State Route 26 Spur and McClellan Boulevard east of I-30, within a vacant parcel of the Clark County Industrial Park that

is currently used for agricultural purposes. The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at the proposed action site.

A figure showing the location of the proposed action site is enclosed. The majority of the proposed action site has been under agricultural production for many years, and the soils have been highly disturbed from agricultural activities. Approximately 1.5 acres of wooded lands are located on the proposed action site and are dominated by honey locust (*Gleditsia tricanthos*), persimmon (*Diospros virginiana*) and American hornbeam (*Carpinus caroliniana*). Additionally, 0.69 acres of wetlands are present on the parcel.

We are currently in the process of gathering the most current information available for this area. The USACE, Mobile District respectfully requests that your agency provide input regarding transportation issues and proposed state transportation projects potentially occurring within this area of Clark County that you believe should be addressed in the EA. We will send you a copy of the EA when it is released to the public, which is currently anticipated to occur in late August. If you have any questions, please do not hesitate to call me at (501) 771-7992.

Sincerely,

A handwritten signature in black ink, appearing to read "James Wheeler II". The signature is fluid and cursive, with a prominent initial "J" and a long, sweeping underline.

James Wheeler II
Chief, Environmental Division
90th Regional Readiness Command

Enclosure

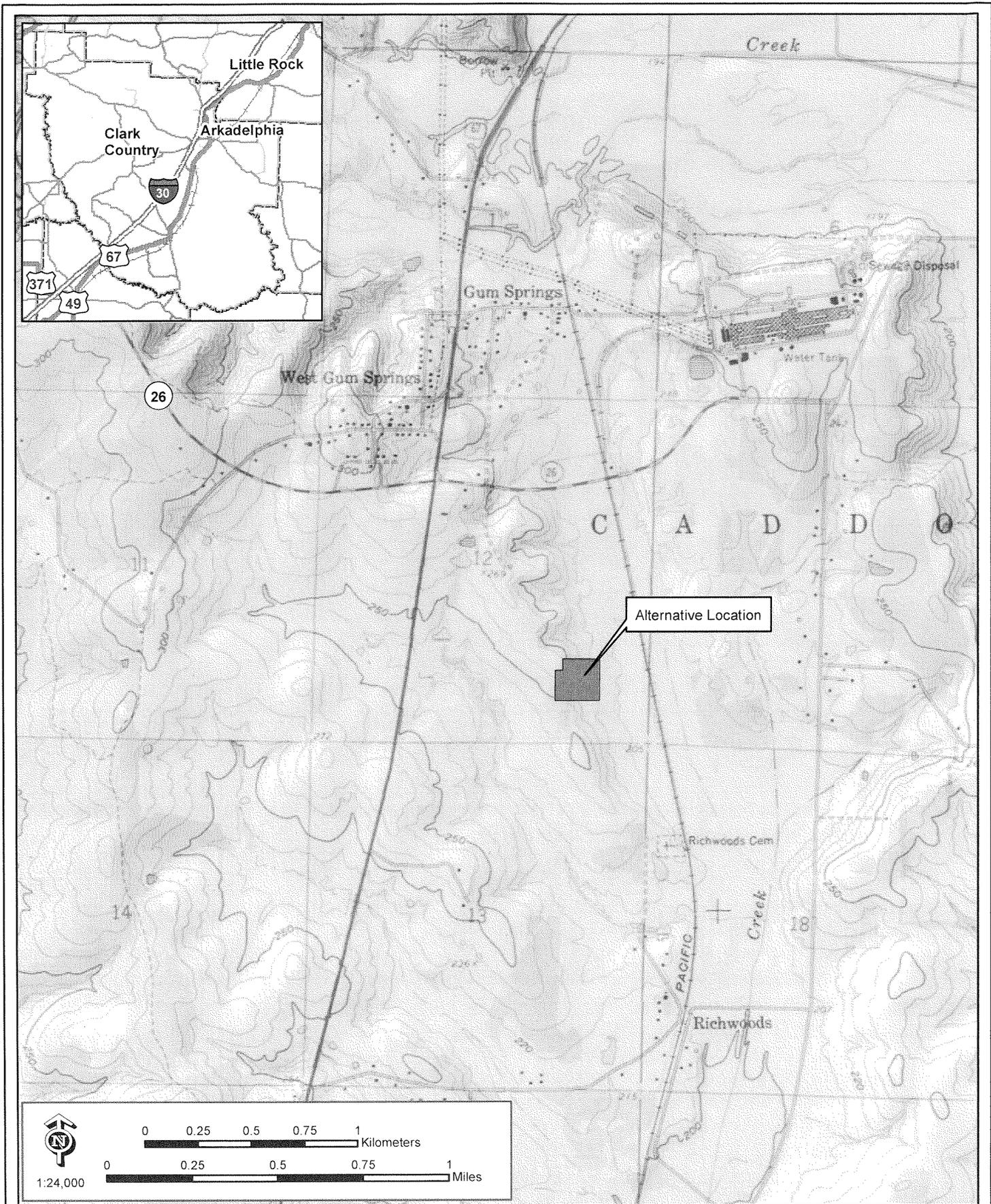


Figure 1: BRAC Alternative Location "B"

ARKANSAS STATE HIGHWAY
AND
TRANSPORTATION DEPARTMENT

Dan Flowers
Director
Phone (501) 569-2000 Fax (501) 569-2400



P.O. Box 2261
Little Rock, Arkansas 72203-2261
WWW.ARKANSASHIGHWAYS.COM

June 9, 2008

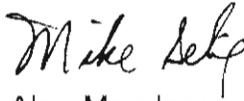
Mr. James Wheeler II
Chief, Environmental Division
Department of the Army
Headquarters, United States Army
90th Regional Readiness Command
8000 Camp Robinson Road
North Little Rock, AR 72118-2205

Dear Mr. Wheeler:

We have reviewed the location of the proposed Armed Forces Reserve Center near Arkadelphia, Arkansas. There are no State transportation projects proposed in the vicinity of this location.

If additional information is needed, please advise.

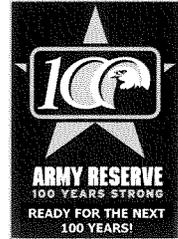
Sincerely,


Alan Meadors
Planning and Research Engineer

c: Assistant Chief Engineer – Planning
Environmental
District 7 Engineer



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205



May 21, 2008

Reply to Attention of Environmental Division

Mr. John Blevins, Director
Compliance Assurance Division
Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

Dear Mr. Blevins:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to accommodate the training missions for five Army Reserve Units and one Army National Guard Unit at a new Armed Forces Reserve Center (AFRC) in Arkadelphia, Arkansas.

A new facility will be required to provide for unit maintenance training, unit storage, and parking of military and privately-owned vehicles for the Reserve and Guard units assigned to the new AFRC. The AFRC would include administrative, assembly, educational, storage, special training, library, and support areas with a total of 69,437 square feet of building space. Parking facilities would also be incorporated into the design. The total amount of disturbed area is expected to be approximately 10 acres, and the entire 10 acres would be surrounded by chain-link security fencing. No additional weapons systems or demands on training ranges are required for the proposed action.

Eleven sites were initially evaluated in the vicinity of Arkadelphia for their suitability for the AFRC. It was determined that two of the sites (the proposed action site and the originally preferred site) were considered suitable for the construction of the AFRC in the vicinity of Arkadelphia because they fully met the evaluation criteria, such as proximity to utilities and police and fire service, visibility to the community, accessibility, and availability of the land. However the originally preferred site, which is located on Old Military Road west of Interstate 30 (I-30), was evaluated in more detail including surveys for the presence of cultural resources, and it was determined that the site contained deeply buried cultural material that could be disturbed from construction of an AFRC. Therefore, because of the potential impacts to these highly sensitive resources, the originally preferred site was dismissed from further evaluation.

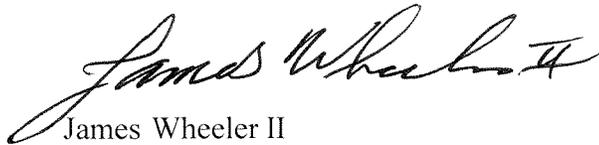
The proposed action site is located at the intersection of State Route 26 Spur and McClellan Boulevard east of I-30, within a vacant parcel of the Clark County Industrial Park that

is currently used for agricultural purposes. The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at the proposed action site.

A figure showing the location of the proposed action site is enclosed. The majority of the proposed action site has been under agricultural production for many years, and the soils have been highly disturbed from agricultural activities. Approximately 1.5 acres of wooded lands are located on the proposed action site and are dominated by honey locust (*Gleditsia tricanthos*), persimmon (*Diospros virginiana*) and American hornbeam (*Carpinus caroliniana*). Additionally, 0.69 acres of wetlands are present on the parcel.

We are currently in the process of gathering the most current information available for this area. The USACE, Mobile District respectfully requests that your agency provide input regarding sensitive resources potentially occurring within this area of Clark County that you believe should be addressed in the EA. We will send you a copy of the EA when it is released to the public, which is currently anticipated to occur in late August. If you have any questions, please do not hesitate to call me at (501) 771-7992.

Sincerely,

A handwritten signature in cursive script, appearing to read "James Wheeler II".

James Wheeler II
Chief, Environmental Division
90th Regional Readiness Command

Enclosure

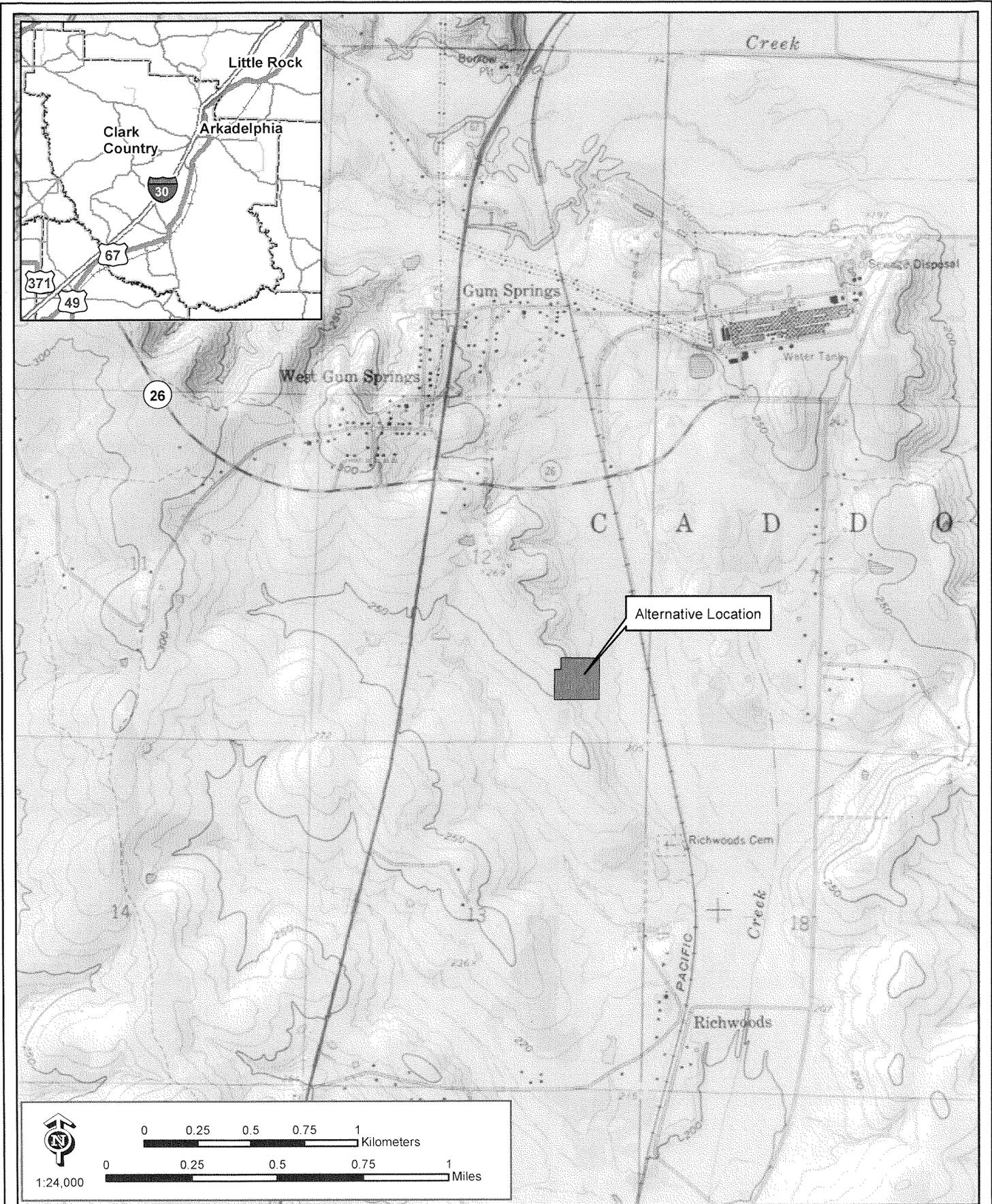


Figure 1: BRAC Alternative Location "B"



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
8000 CAMP ROBINSON ROAD
NORTH LITTLE ROCK, ARKANSAS 72118-2205



May 22, 2008

Reply to Attention of Environmental Division

Mark Sattleberg
U.S. Fish & Wildlife Service
110 South Amity Road
Suite 300
Conway, Arkansas 72032

Dear Mr. Sattleberg:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to accommodate the training missions for five Army Reserve Units and one Army National Guard Unit at a new Armed Forces Reserve Center (AFRC) in Arkadelphia, Arkansas.

A new facility will be required to provide for unit maintenance training, unit storage, and parking of military and privately-owned vehicles for the Reserve and Guard units assigned to the new AFRC. The AFRC would include administrative, assembly, educational, storage, special training, library, and support areas with a total of 69,437 square feet of building space. Parking facilities will also be incorporated into the design. The total amount of disturbed area is expected to be approximately 10 acres, and the entire 10 acres would be surrounded by chain-link security fencing. No additional weapons systems or demands on training ranges are required for the proposed action.

Eleven sites were initially evaluated in the vicinity of Arkadelphia for their suitability for the AFRC. It was determined that two of the sites (the proposed action site and the originally preferred site) were considered suitable for the construction of the AFRC in the vicinity of Arkadelphia because they fully met the evaluation criteria, such as proximity to utilities and police and fire service, visibility to the community, accessibility, and availability of the land. However the originally preferred site, which is located on Old Military Road west of Interstate 30 (I-30), was evaluated in more detail including surveys for the presence of cultural resources, and it was determined that the site contained deeply buried cultural material that could be disturbed from construction of an AFRC. Therefore, because of the potential impacts to these highly sensitive resources, the originally preferred site was dismissed from further evaluation.

The proposed action site is located at the intersection of State Route 26 Spur and McClellan Boulevard east of I-30, within a vacant parcel of the Clark County Industrial Park that is currently used for agricultural purposes. The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at the proposed action site.

An endangered species list for Clark County was provided by Jennifer Ballard on May 29, 2007. Eight Federally listed species have the potential to occur in Clark County, Arkansas as shown in Table 1. Additionally, bald eagles (*Haliaeetus leucocephalus*) are known to winter at DeGray Lake, approximately 6 miles north of the proposed action site. The mussel species are found in deep pools or backwater areas of stream channels with sand, sand-gravel, or sand-cobble substrate, and likely occur in the Ouachita River. However, the proposed action would have no impacts to the Ouachita River or its tributaries. There are no mature pine forests on or near the proposed action site; therefore there is no suitable habitat for the red-cockaded woodpecker (*Picoides borealis*). Clark County is part of the historic range of the Florida panther (*Puma concolor coryi*). Florida panthers currently only occur in south Florida and the proposed action site is outside of their present range.

Table 1. Federally Listed and Proposed Species for Clark County, Arkansas

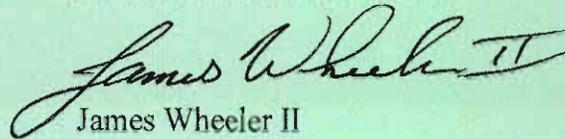
Common/Scientific Name	Federal Status	Preferred Habitat
INVERTEBRATES		
Arkansas fatmucket <i>Lampsilis powelli</i>	Threatened	Occurs in deep pools and backwater areas with various substrates.
Ouachita rock pocketbook <i>Arkansia wheeleri</i>	Endangered	Occurs in pools with a cobble-gravel bottom or backwater with a gravel-sand bottom.
Pink mucket <i>Lampsilis abrupta</i>	Endangered	Occurs in shallow riffles and shoals free of silt.
Scaleshell <i>Leptodea leptodon</i>	Endangered	Occurs in medium and large sized rivers with stable channels.
Spectaclecase <i>Cumberlandia monodonta</i>	Candidate	Occurs in large rivers in shallow riffles and shoals with various substrates.
Winged mapleleaf <i>Quadrula fragosa</i>	Endangered	Occurs in riffles with gravel, sand or rubble bottoms.
BIRDS		
Red-cockaded woodpecker <i>Picoides borealis</i>	Endangered	Inhabits open pine forest especially longleaf pine forests, maintained by frequent fires.
MAMMALS		
Florida panther <i>Puma concolor coryi</i>	Endangered	Historic range included Lower Mississippi Valley including Arkansas.

A figure showing the location of the proposed action site, which is being evaluated for the construction of the AFRC, is enclosed. The majority of the proposed action site has been under agricultural production for many years, and the soils have been highly disturbed from agricultural activities. Approximately 1.5 acres of wooded lands are located on the proposed action site and are dominated by honey locust (*Gleditsia tricanthos*), persimmon (*Diospros virginiana*) and American hornbeam (*Carpinus caroliniana*). The proposed action site is not located near the

Caddo or Ouachita Rivers; however 0.69 acres of wetlands are present on the parcel. Based on the lack of suitable habitat for any listed species at the proposed action site, and the use of best management practices to control sediment in storm water runoff to tributaries of the Ouachita River during construction, we have determined that the development of the AFRC would have no effect on any listed species.

We respectfully ask that you provide written concurrence with our determination. We would appreciate your prompt attention and response. If you have any questions, please do not hesitate to call me at (501) 771-7992.

Sincerely,

A handwritten signature in black ink that reads "James Wheeler II". The signature is written in a cursive style with a large, sweeping initial "J".

James Wheeler II
Chief, Environmental Division
90th Regional Readiness Command

Enclosure

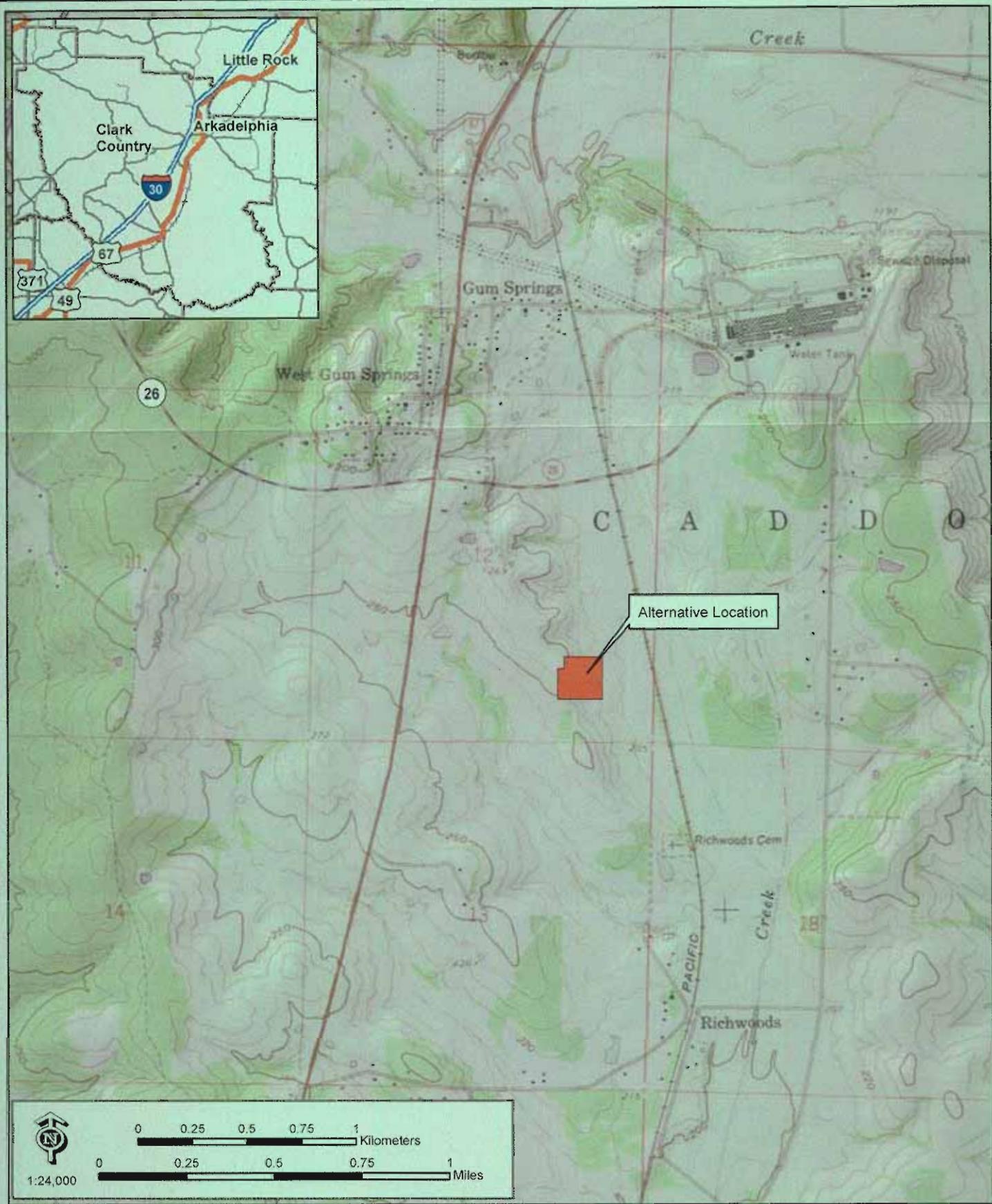


Figure 1: BRAC Alternative Location "B"



IN REPLY REFER TO:

United States Department of the Interior

FISH AND WILDLIFE SERVICE

110 South Amity Road, Suite 300
Conway, Arkansas 72032
Tel.: 501/513-4470 Fax: 501/513-4480

June 23, 2008

Reference: TA 0703 FA 0692

Department of the Army
Environmental Division
8000 Camp Robinson Road
North Little Rock, Arkansas 72118-2205

Dear Mr. Wheeler II:

The U.S. Fish and Wildlife Service (Service) has reviewed the information supplied in your letter dated May 22, 2008, regarding the proposed construction of a new facility for unit maintenance, training, unit storage, and parking of military vehicles in Clark County, Arkansas. Our comments are submitted in accordance with the Endangered Species Act (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.).

After reviewing the biological assessment you provided, the Service concurs with your determination that the proposed project is not likely to adversely affect federally listed species. Therefore, no further consultation under the Endangered Species Act is necessary at this time.

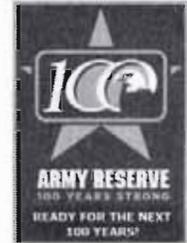
We appreciate your interest in the conservation of endangered species. If you have any questions, please call Chris Davidson at (501) 513-4481 or Patrick Reynolds at (501) 513-4487.

Sincerely,

Margaret Harney
Acting Field Supervisor



DEPARTMENT OF THE ARMY
 HEADQUARTERS, UNITED STATES ARMY 90TH REGIONAL READINESS COMMAND
 CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
 8000 CAMP ROBINSON ROAD
 NORTH LITTLE ROCK, ARKANSAS 72118-2205



April 1, 2008

Reply to Attention of Environmental Division

AMRR
APR 04 2008

66277
USA

George McCluskey
 Arkansas Historic Preservation Program
 1500 Tower Building
 323 Center Street
 Little Rock, Arkansas 72201

Date 4-23-08
 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

Dear Mr. McCluskey:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to accommodate the training missions for five Army Reserve Units and one Army National Guard Unit at a new Armed Forces Reserve Center (AFRC) in Arkadelphia, Arkansas.

A new facility will be required to provide for unit maintenance training, unit storage, and parking of military and privately-owned vehicles for the Reserve and Guard units assigned to the new AFRC. The design standards indicate that approximately 55,070 square feet (SF) of offices and classrooms are required to accommodate the AFRC operations. The new AFRC would also include a 6,002-SF vehicle maintenance shop and a 1,065-SF Organizational Unit Storage building. Parking facilities would also be incorporated into the design. The total amount of disturbed area is expected to be approximately 10 acres, and the entire 10 acres would be surrounded by chain-link security fencing. Two access points would be needed for the ingress and egress of vehicles. No additional weapons systems or demands on training ranges are required for the proposed action.

Eleven sites were initially evaluated in the Arkadelphia area for their suitability for the AFRC. It was determined that two of the sites evaluated are considered suitable for the construction of the AFRC in the Arkadelphia area because they fully met the evaluation criteria such as proximity to utilities and police and fire service, visibility to the community, accessibility, location relative to the 100-year floodplain, and availability of the land.

The preferred site was located on Old Military Road just west of Interstate 30, within a larger parcel that is currently used for agricultural purposes. After initial archaeological testing of the preferred site it was determined that the site was unsuitable given the presence of significant and deeply buried cultural material. The alternative site for the AFRC is located within the Clark County Industrial Park (Enclosure). A site record search was conducted at the Arkansas Archaeological Survey and it was determined that the alternative location, at the intersection of Highway 265 and McClellan Boulevard, had been previously surveyed in 1978 by David Kelly of the Arkansas Archaeological Survey. No archaeological sites were recorded



The Department of
**Arkansas
Heritage**

Mike Beebe
Governor

Cathie Matthews
Director

Arkansas Arts Council

Arkansas Natural Heritage
Commission

Delta Cultural Center

Historic Arkansas Museum

Mosaic Templars
Cultural Center

Old State House Museum



Arkansas Historic
Preservation Program

1500 Tower Building
323 Center Street
Little Rock, AR 72201
(501) 324-9880
fax: (501) 324-9184
tdd: (501) 324-9811

e-mail:

info@arkansaspreservation.org

website:

www.arkansaspreservation.com

An Equal Opportunity Employer



September 17, 2007

Mr. Paul M. Shipp PG
Terriane, Inc.
4002 Sutherland Avenue
Knoxville, Tennessee 37919

RE: Clark County - Arkadelphia
Section 106 Review - COE
Proposed Armed Forces Reserve Center
AHPP Tracking No: 64233

Dear Mr. Shipp:

This letter is written in response to your inquiry regarding properties of architectural, historical, or archeological significance in the area of the referenced project. My staff has reviewed the documentation submitted regarding the above referenced undertaking. Although our records do not show any cultural resources within this area, archeological sites are known to occur in similar environments elsewhere and four (3CL7 - Barkman Mound [also on file as CL0725 - Barkman House], 3CL71, 3CL73 and 3CL455) are located in close proximity to the proposed undertaking. The Barkman House site (CL0725)/Barkman Mound (3CL27) may extend into the project area, and 3CL27 is known to contain human burials. In addition, the proposed work will take place in an area that exhibits a high probability for the occurrence of undiscovered archeological sites.

Therefore, because of the number of known sites and the area and the strong possibility that others may occur, we recommend that a cultural resources survey be conducted. A report of that work that meets the 1994 standards contained in "A State Plan for the Conservation of Archeological Resources in Arkansas" should be submitted to this office prior to project implementation.

Thank you for the opportunity to comment on this undertaking. If you have any questions, please contact Steve Imhoff of my staff at (501) 324-9880.

Sincerely,


Ken Grunewald

Deputy State Historic Preservation Officer

cc: Louisville District, Corps of Engineers
Mr. Robert Cast, Caddo Nation
Dr. Ann M. Early, Arkansas Archeological Survey



Scott Henderson
Director

Mike Gibson
Deputy Director

Keeping the Natural State natural.

Arkansas Game and Fish Commission

David Goad
Deputy Director

Loren Hitchcock
Deputy Director

June 5, 2008

Mr. James Wheeler II
Chief, Environmental Division
Department of the Army
8000 Camp Robinson Road
North Little Rock, Arkansas 72118-2205

Dear Mr. Wheeler:

Your letter regarding the construction of a new Armed Forces Reserve Center, which is located in Arkadelphia, Clark County, Arkansas, has been referred to me for reply.

Biologists from our agency have reviewed the proposed project and we anticipate insignificant adverse impacts to fish and wildlife resources associated with these proposed activities.

If our agency can be of further assistance with the proposed project, don't hesitate to call us. We appreciate the opportunity to review this project proposal.

Sincerely,

Robert K. Leonard, Biologist
River Basins Division

Cc: Doyle Shook
Mike Armstrong
USFWS, Conway Office

2 Natural Resources Drive • Little Rock, AR 72205 • www.agfc.com
Phone (800) 354-4263 • (501) 223-6300 • Fax (501) 223-6448

The mission of the Arkansas Game and Fish Commission is to wisely manage all the fish and wildlife resources of Arkansas while providing maximum enjoyment for the people.

APPENDIX C
Economic Impact Forecast System Model

Analysis of Socioeconomic Effects For Arkadelphia Reserve Center Realignment for BRAC05

Introduction

The socioeconomic analysis requirements of NEPA have been established over the years through successful early NEPA litigation (“McDowell vs Schlesinger”, US District Court, Western District of Missouri, Western Division, No. 75-CV-234-W-4 (June 19,1975) and “Breckinridge vs Schlesinger”, US District Court, Eastern District of Kentucky, No. 75-100 (October 31,1975)), as well as the practical need for communication and collaboration with affected communities. The social and economic effects of Base Realignment and Closure (BRAC) actions are especially relevant and important, as these issues are often the source of community concerns and subsequent controversies.

The Economic Impact Forecast System (EIFS) and the Hierarchical Approach.

The Model:

The Economic Impact Forecast System (EIFS) (Huppertz, Claire E.; Bloomquist, Kim M.; Barbehenn, Jacinda M.; EIFS 5.0 Economic Impact Forecast System, User’s Reference Manual; USACERL Technical Report TA-94/03; July 1994.) has been a mainstay of Army NEPA practice since its initial development and implementation in the mid-70s. EIFS provides a mechanism to estimate impacts, and ascertain the “significance” of projected impacts, using the Rational Threshold Value (RTV) technique. This analysis and determination can be readily documented, and if significance thresholds are not exceeded, the analysis can be completed. EIFS was designed to address NEPA applications, providing a “two-tier” approach to the process; (1) a simple and quick aggregate model (sufficient to ascertain the overall magnitude of impacts) and (2) a more detailed, sophisticated input-output (I-O) model to further analyze impacts that appear significant, in NEPA terms, and worthy of additional expenditures and analyses. This “two-tier” approach is consistent with the two common levels of NEPA analysis, the Environmental Assessment (EA) and the Environmental Impact Statement (EIS). EIFS has facilitated efficient and effective completion of such analyses for approximately 3 decades.

Complete documentation of the model, its development, and applicable theoretical underpinnings is available in numerous publications:

Huppertz, Claire E.; Bloomquist, Kim M.; Barbehenn, Jacinda M.; EIFS 5.0 Economic Impact Forecast System, User’s Reference Manual; USACERL Technical Report TA-94/03; July 1994.

Isard, W., Methods of Regional Analysis, MIT Press, 1960.

Isard, W. and Langford, T., Regional Input-Output Study: Recollections, Reflections, and Diverse Notes on the Philadelphia Experience, MIT Press, 1971.

Isserman, A., "The Location Quotient Approach to Estimating Regional Economic Impacts", AIP Journal, January, 1977, pp. 33-41.

- Isserman, A., "Estimating Export Activity in a Regional Economy: A Theoretical and Empirical Analysis of Alternative Methods", International Regional science Review, Vol. 5, 1980, pp. 155-184.
- Leigh, R., " The Use of Location Quotients in Urban Economic Base Studies", Land Economics, Vol 46, May, 1970, pp 202-205.
- Mathur, V.K. and Rosen, H.S. , "Regional Employment Multiplier: A new Approach", Land Economics, Vol 50, 1974, pp 93-96.
- Mayer, W. and Pleeter, S., "A Theoretical Justification for the Use of Location Quotients", Regional Science and Urban Economics, Vol 5, 1975, pp 343-355.
- Robinson, D.P., Hamilton, J.W., Webster, R.D., and Olson, M.J., Economic Impact Forecast System (EIFS) II: User's Manual, Updated Edition, Technical Report N-69/ADA144950, U.S. Army Construction Engineering Research Lab (USACERL),1984.
- Robinson, D.P. and Webster,R.D., Enhancements to the Economic Impact Forecast System (EIFS), Technical Report N-175/ADA142652, USACERL, April, 1984.
- Rogers, Claudia and Webster, Ron, "Qualitative Answers to Quantitative Questions", Impact Assessment, IAIA, Vol.12, No.1, 1999.
- Thompson, W., A Preface to Urban Economics, Johns Hopkins Press, 1965.
- Tiebout, C., The Community Economic Base, New York Committee for Economic Development, 1962.
- USACERL, " Methods for Evaluating the Significance of Impacts: The RTV and FSI Profiles"; USACERL EIFS Tutorial; July 1987.
- U.S. Army, Department of the Army, DA Pamphlet 200-2, "Economic Impact Forecast System-User Instructions", 1980.
- U.S. Army, "Base Realignment and Closure "How-To" Manual for Compliance with the National Environmental Policy Act", revised and published as official Department of Army Guidance, 1995.
- U.S. Army, Army Regulation 5-20, "Commercial Activities"
- U.S. Army, Department of the Army, DA Pamphlet 200-2, "Economic Impact Forecast System-User Instructions", 1980
- Webster, R.D.and Shannon, E.; The Rational Threshold Value (RTV) Technique for the Evaluation of Regional Economic Impacts; USACERL Technical Report TR N-49/ADA055561; 1978.
- Webster, R.D., Hamilton, J.W., and Robinson, D.P., "The Two-Tier Concept for Economic Analysis: Introduction and User Instructions", USACERL Technical Report N-127/ADA118855.

These efforts reflect development of a tool for specific NEPA application, following the successful NEPA litigation referenced in the Introduction. As EIFS has been used for Army NEPA analyses, the results of EIFS analyses have been reviewed by stakeholder (affected community) representatives, and, as a result of BRAC application, twice reviewed by the Government Accounting Office (GAO). During such reviews, the analyses and resultant decisions were upheld, and EIFS was lauded as a uniform (non-arbitrary and non-capricious) approach to such requirements. Drawing from a national, uniform database, and using a common, systematic approach, EIFS allowing the improved comparison of project alternatives (the heart of NEPA analysis), and provides comparable analyses across the U.S.

NEPA Process Improvement:

Since NEPA was implemented, it has been commonly criticized as expensive and time-consuming. While these criticisms have been often justified, the President's Council on Environmental Quality (CEQ) has actively promoted NEPA process improvements; first

in the publication of the CEQ NEPA regulations (CEQ, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, Reprint, 40 CFR Parts 1500-1508, Executive Office of the President, Council on Environmental Quality, 1992.), and, more recently, through a NEPA anniversary introspective (CEQ, The National Environmental Policy Act: A Study of its Effectiveness After Twenty-five Years, Executive Office of the President, Council on Environmental Quality, January, 1997.) and the formal CEQ NEPA Task Force (CEQ, The NEPA Task Force Report to the Council on Environmental Quality: Modernizing NEPA Implementation; September, 2003.). All three CEQ initiatives call for more "focus" on NEPA documents, eliminating the analyses of minor or unimportant issues, and focusing, instead, on those issues that should be part of an informed agency decision. The use of EIFS, and the "two-tier" approach is consistent with these CEQ recommendations.

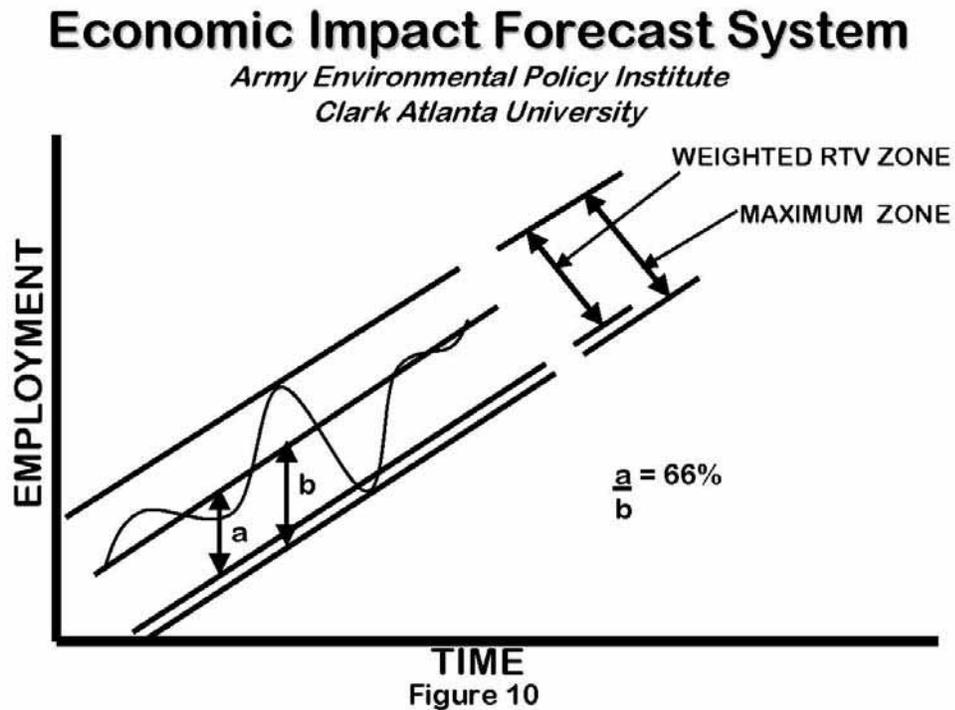
Determining Significance:

While EIFS was being developed, communities began to question the rationale for determining the significance of socioeconomic impacts. USACERL was directed to develop a defensible procedure for such a determination, resulting in the Rational Threshold Value (RTV) technique (Webster, R.D.; and Shannon, E.; The Rational Threshold Value (RTV) Technique for the Evaluation of Regional Economic Impacts; USACERL Technical Report TR N-49/ADA055561; 1978). This technique relies on the yearly Bureau of Economic Analysis (BEA) time series data on employment, income, and population to evaluate historical trends within a subject community (region); and uses those trends to measure the "resilience" of the local community to change, or its ability to accommodate such change. This approach has worked well when communicating with affected communities. The combined use of RTV with the EIFS model meet the two pronged approach for significance determinations, intensity and context (CEQ, 1992)

The initial EIFS implementation (USACERL, 1975) included the analysis of numerous variables: business volume, personal income, employment, government revenues and expenditures, income and employment distribution, local housing impacts, regional economic stability, school system impacts, government bond obligations, population, welfare and dependency, social control, and aesthetic considerations. These selection of these variables was based on the predictive capability of forecasting techniques and data availability. Over some 30 years of practice, pragmatism and sufficiency led to the use of sales volume, employment, personal income, and population as indicators of impacts (as a "first tier" approximation of effects). These effects can also be readily evaluated (and significance determined) using the BEA time series data. Population, important in its own right, is also a valuable indicator of other factors (e.g., impact on local government revenues and expenditures, housing, local school systems, and the change in welfare and dependency), as impacts on such variables are driven, to a large extent, by a population change.

Using BEA time series data is used to analyze the four variables for the ROI, the RTV model produces thresholds for assessing the magnitude of impacts. The RTV technique is

simple, starting with a straight line between the first year of record and the last year of record for that variable, establishing the average rate of change over time. Then, each yearly deviation from that growth rate is calculated and converted to a percentage. The largest historical changes (both increase and decrease) are used to define significance thresholds. The following figure illustrates the RTV concept:



A "factor of safety" is applied to negative thresholds, as shown in the figure, to produce a conservative analysis; while 100% of the maximum positive thresholds is used; as indicated below:

	<u>Increase</u>	<u>Decrease</u>
Total sales volume	100 percent	75 percent
Total employment	100 percent	66 percent
Personal Income	100 percent	66 percent
Total population	100 percent	50 percent

The maximum positive historical fluctuation is used because of the positive connotations generally associated with economic growth. While economic growth can produce

unacceptable impacts and the "smart growth" concept is increasingly favored, the effects of reductions and closures are usually much more controversial. These adjustments, while arbitrary, are sensible. The negative sales volume threshold is adjusted by 75%, as sales volume impacts can be absorbed by such factors as the manipulation of inventory, new equipment, etc; and the impacts on individual workers or proprietors is indirect, if at all. Changes in employment and income, however, are impacts that immediately affect individuals; thus they are adjusted by 66%. Population is extremely important, as an indicator of other social issues, and is thus adjusted by 50%.

To adjust dollar amounts for inflation (to create "constant dollars" prior to calculations), the Consumer Price Index (CPI) is used for appropriate years, and all dollar values are adjusted to 1987 equivalents.

The main strength of the RTV approach stems from its reliance on data for each individual ROI. This approach addressed previous criticism of more simple approaches that applied arbitrary criteria to all communities. This approach establishes unique criteria, representative of local community patterns, and, while a community may not completely agree, a common frame of reference is established. Critics of the RTV technique have questioned the arbitrary selection of the maximum allowable deviations to indicate impact significance, but the process has proven workable over the years.

The Application of EIFS to the Proposed Action

To effect these analyses, the inputs to the EIFS model must be estimated. The normal EIFS inputs include:

- Number of affected (moving) civilians and their salaries
- Number of affected (moving) military employees and their salaries
- Percentage of affected military employees living on-post
- Changes in local procurement, contracting, and purchases
- Definition of the multi-county region of influence (ROI)

In the case of the Arkadelphia AFRC realignment, no change in civilian or military strength in the region will occur, given the close proximity of the existing (combining) affected sites. The only exogenous economic stimulus will be associated with the construction of some 69,437 square feet of new facilities. This will involve some \$15.457 million dollars in construction expenditures and land acquisition.

An analysis of the Arkadelphia region indicates, based on the proximity and the road network, that the ROI for this analysis should include Clark, Nevada, and Hot Spring counties.

The estimated inputs were used to produce EIFS reports (model results) for changes in total business volume, employment, income, and population. These are best shown as percentages (of the activity in the total ROI), and can be prepared to the RTVs for that variable in that ROI. The following EIFS documentation is provided; detailing the inputs,

documenting projected changes, and evaluating the potential significance of the predicted change, based on the RTV technique:

EIFS REPORT

PROJECT NAME

Arkadelphia AFRC

STUDY AREA

05019 Clark, AR
05059 Hot Spring, AR
05099 Nevada, AR

FORECAST INPUT

Change In Local Expenditures	\$15,457,000
Change In Civilian Employment	0
Average Income of Affected Civilian	\$0
Percent Expected to Relocate	0
Change In Military Employment	0
Average Income of Affected Military	\$0
Percent of Military Living On-post	0

FORECAST OUTPUT

Multiplier	1.65
Sales Volume - Direct	\$15,457,000
Sales Volume - Induced	\$10,047,050
Sales Volume - Total	\$25,504,050 2.69%
Income - Direct	\$3,034,131
Income - Induced	\$1,972,185
Income - Total	\$5,006,316 0.48%
Employment - Direct	119
Employment - Induced	77
Employment - Total	196 0.72%

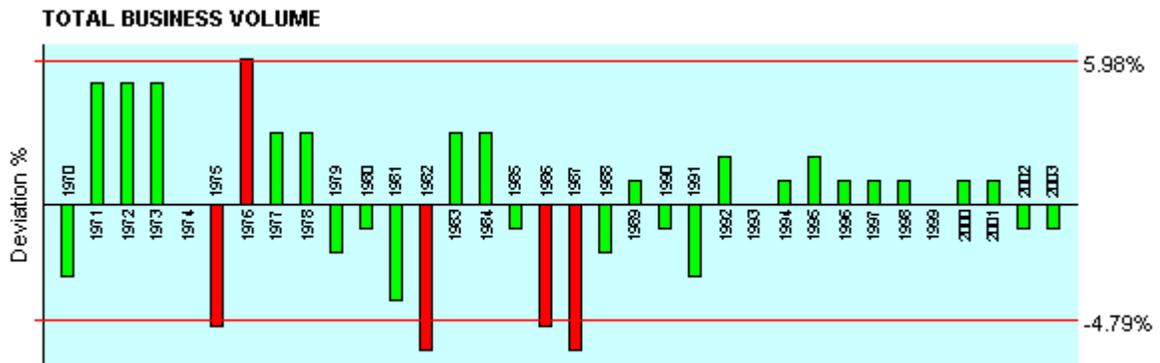
Local Population 0
 Local Off-base Population 0 0%

RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	5.98 %	7 %	5.34 %	3.45 %
Negative RTV	-4.79 %	-4.27 %	-7.34 %	-0.98 %

RTV DETAILED

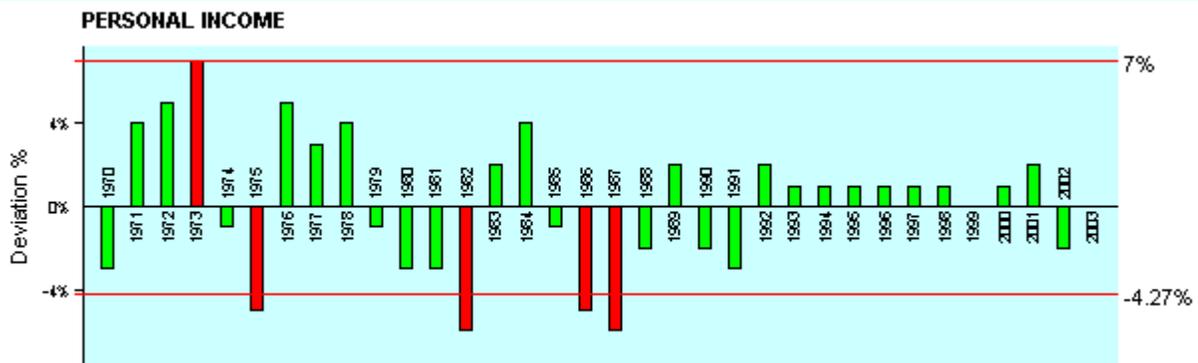
SALES VOLUME



Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	251874	1324857	0	-39731	0
1970	265846	1323913	-944	-40675	-3.07
1971	300362	1432727	108814	69083	4.82
1972	334226	1544124	111397	71666	4.64
1973	382328	1663127	119003	79272	4.77
1974	435370	1702297	39170	-561	-0.03
1975	461296	1656053	-46244	-85975	-5.19
1976	530486	1803652	147600	107869	5.98
1977	598594	1909515	105862	66131	3.46
1978	675466	1999379	89864	50134	2.51
1979	754540	2007076	7697	-32034	-1.6
1980	867982	2031078	24001	-15730	-0.77
1981	932446	1986110	-44968	-84699	-4.26
1982	960134	1920268	-65842	-105573	-5.5
1983	1041286	2020095	99827	60096	2.97
1984	1146028	2131612	111517	71786	3.37
1985	1189212	2140582	8970	-30761	-1.44
1986	1181756	2079891	-60691	-100422	-4.83

1987	1171962	1992335	-87555	-127286	-6.39
1988	1217098	1983870	-8466	-48197	-2.43
1989	1311708	2046264	62395	22664	1.11
1990	1389942	2071014	24749	-14982	-0.72
1991	1443058	2049142	-21871	-61602	-3.01
1992	1552272	2142135	92993	53262	2.49
1993	1635988	2192224	50089	10358	0.47
1994	1728652	2247248	55024	15293	0.68
1995	1828734	2322492	75245	35514	1.53
1996	1934470	2379398	56906	17175	0.72
1997	2033460	2440152	60754	21023	0.86
1998	2110366	2511336	71184	31453	1.25
1999	2190790	2541316	29981	-9750	-0.38
2000	2329586	2609136	67820	28089	1.08
2001	2466364	2688337	79200	39469	1.47
2002	2515636	2691731	3394	-36337	-1.35
2003	2586138	2715445	23714	-16017	-0.59

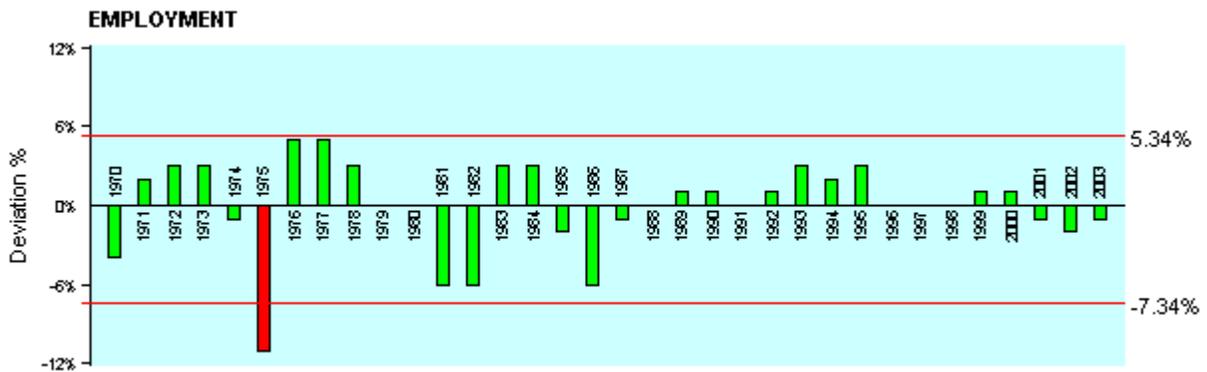
INCOME



Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	130397	685888	0	-19756	0
1970	137544	684969	-919	-20675	-3.02
1971	154241	735730	50760	31004	4.21
1972	171399	791863	56134	36378	4.59
1973	200632	872749	80886	61130	7
1974	226164	884301	11552	-8204	-0.93
1975	238895	857633	-26668	-46424	-5.41
1976	272687	927136	69503	49747	5.37
1977	305532	974647	47511	27755	2.85
1978	349081	1033280	58633	38877	3.76

1979	391641	1041765	8485	-11271	-1.08
1980	441377	1032822	-8943	-28699	-2.78
1981	481083	1024707	-8115	-27871	-2.72
1982	494886	989772	-34935	-54691	-5.53
1983	528461	1025214	35442	15686	1.53
1984	582259	1083002	57787	38031	3.51
1985	605352	1089634	6632	-13124	-1.2
1986	602818	1060960	-28674	-48430	-4.56
1987	597668	1016036	-44924	-64680	-6.37
1988	625026	1018792	2757	-16999	-1.67
1989	676734	1055705	36913	17157	1.63
1990	709281	1056829	1124	-18632	-1.76
1991	736133	1045309	-11520	-31276	-2.99
1992	790299	1090613	45304	25548	2.34
1993	833410	1116769	26157	6401	0.57
1994	880616	1144801	28031	8275	0.72
1995	928333	1178983	34182	14426	1.22
1996	986738	1213688	34705	14949	1.23
1997	1039849	1247819	34131	14375	1.15
1998	1077376	1282077	34259	14503	1.13
1999	1121818	1301309	19231	-525	-0.04
2000	1186893	1329320	28011	8255	0.62
2001	1257708	1370902	41582	21826	1.59
2002	1273824	1362992	-7910	-27666	-2.03
2003	1311773	1377362	14370	-5386	-0.39

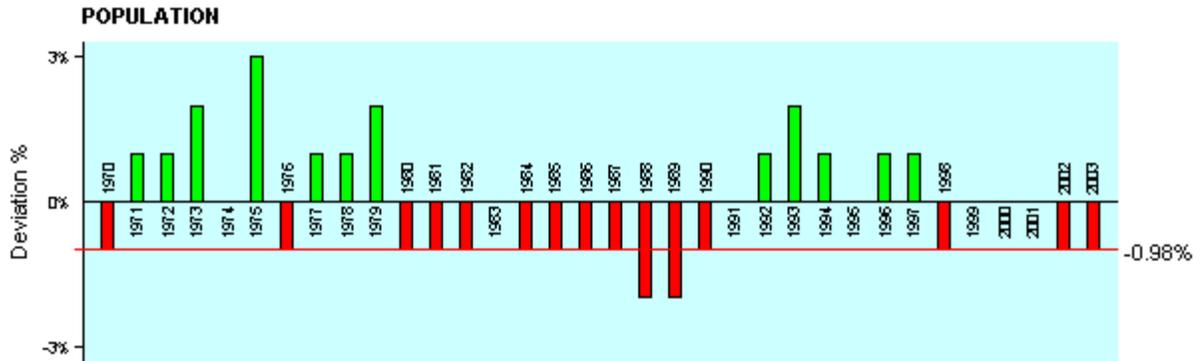
EMPLOYMENT



Year	Value	Change	Deviation	%Deviation
1969	19046	0	-263	0
1970	18628	-418	-681	-3.66

1971	19287	659	396	2.05
1972	20085	798	535	2.66
1973	20889	804	541	2.59
1974	20939	50	-213	-1.02
1975	19109	-1830	-2093	-10.95
1976	20465	1356	1093	5.34
1977	21839	1374	1111	5.09
1978	22844	1005	742	3.25
1979	23063	219	-44	-0.19
1980	23417	354	91	0.39
1981	22412	-1005	-1268	-5.66
1982	21349	-1063	-1326	-6.21
1983	22342	993	730	3.27
1984	23357	1015	752	3.22
1985	23197	-160	-423	-1.82
1986	22083	-1114	-1377	-6.24
1987	22053	-30	-293	-1.33
1988	22336	283	20	0.09
1989	22797	461	198	0.87
1990	23351	554	291	1.25
1991	23503	152	-111	-0.47
1992	24033	530	267	1.11
1993	25111	1078	815	3.25
1994	25771	660	397	1.54
1995	26750	979	716	2.68
1996	27117	367	104	0.38
1997	27293	176	-87	-0.32
1998	27515	222	-41	-0.15
1999	27990	475	212	0.76
2000	28539	549	286	1
2001	28458	-81	-344	-1.21
2002	28221	-237	-500	-1.77
2003	28250	29	-234	-0.83

POPULATION



Year	Value	Change	Deviation	%Deviation
1969	53731	0	-277	0
1970	53641	-90	-367	-0.68
1971	54445	804	527	0.97
1972	55419	974	697	1.26
1973	56711	1292	1015	1.79
1974	56711	0	-277	-0.49
1975	59026	2315	2038	3.45
1976	58605	-421	-698	-1.19
1977	59457	852	575	0.97
1978	60210	753	476	0.79
1979	61597	1387	1110	1.8
1980	61214	-383	-660	-1.08
1981	60977	-237	-514	-0.84
1982	60448	-529	-806	-1.33
1983	60737	289	12	0.02
1984	60574	-163	-440	-0.73
1985	60516	-58	-335	-0.55
1986	60293	-223	-500	-0.83
1987	59748	-545	-822	-1.38
1988	58875	-873	-1150	-1.95
1989	58150	-725	-1002	-1.72
1990	57638	-512	-789	-1.37
1991	57910	272	-5	-0.01
1992	58559	649	372	0.64
1993	59951	1392	1115	1.86
1994	61064	1113	836	1.37
1995	61646	582	305	0.49
1996	62404	758	481	0.77
1997	63272	868	591	0.93

1998	63171	-101	-378	-0.6
1999	63711	540	263	0.41
2000	63806	95	-182	-0.29
2001	63863	57	-220	-0.34
2002	63719	-144	-421	-0.66
2003	63418	-301	-578	-0.91

Summary of Results

The EIFS analyses indicated that the proposed action will produce no major socioeconomic effects in the ROI (community). The projected changes compare the appropriate RTVs as follows:

	<u>projected change</u>	<u>RTV</u>
Business (sales) volume	2.69%	5.98%
Income	0.48%	7.0%
Employment	0.72%	5.34%
Population	0.0%	3.45%

This significance determination is "conservative"--well within any errors produced through assumed EIFS input values. While these inputs could be refined, the results of the analysis (final determination) will certainly remain unchanged.