

FINAL

**ENVIRONMENTAL ASSESSMENT
FOR CONSTRUCTION OF AN
ARMED FORCES RESERVE CENTER AND IMPLEMENTATION OF
BRAC 05 RECOMMENDATIONS AT
RED RIVER ARMY DEPOT, TEXAS**



Prepared for:

U.S. Army Reserve 63rd Regional Support Command

Prepared by:

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August 2009

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**FINAL
FINDING OF NO SIGNIFICANT IMPACT (FNSI) FOR THE
CONSTRUCTION OF AN
ARMED FORCES RESERVE CENTER AND
IMPLEMENTATION OF BRAC 05 RECOMMENDATIONS AT
RED RIVER ARMY DEPOT, TEXAS**

Pursuant to the Council on Environmental Quality (CEQ) regulations (40 CFR 1400-1508) for implementing the procedural provisions of the *National Environmental Policy Act* (NEPA) (42 U.S.C. 4321 et. seq.) and the U.S. Department of Army Regulation 32 CFR Part 651 (*Environmental Analysis of Army Actions*; Final Rule), as well as policy and guidance provided by the *Base Realignment and Closure Manual for Compliance with the National Environmental Policy Act*, the U.S. Army conducted an environmental assessment (EA) of potential environmental effects associated with implementation of BRAC realignment actions.

Purpose and Need. On September 8, 2005, the Defense Base Closure and Realignment Commission (BRAC Commission) recommended certain realignment actions at Red River Army Depot (RRAD), Hooks, Texas. These recommendations were approved by the President on September 23, 2005 and were forwarded to Congress, and on November 9, 2005, the recommendations became law. The BRAC Commission recommendations must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended. The BRAC Commission made the following recommendations concerning RRAD, Hooks, Texas:

“Close the Watts-Guillot United States Army Reserve Center, Texarkana, Texas and realign the Hooks Army Reserve Center on Red River Army Depot by relocating units to a new Armed Forces Reserve Center on Red River Army Depot, Texas. The new AFRC shall have the capability to accommodate Texas National Guard Units from the following Texas ARNG Readiness Centers: Atlanta, and Texarkana, if the state decides to relocate those National Guard units.”

Description of the Proposed Action. To support the BRAC recommendations, the Proposed Action includes construction of an Armed Forces Reserve Center (AFRC) training building, a multi-use classroom, Organizational Maintenance Shop (OMS), and organizational unit storage. Future site improvements are expected to require approximately 15 acres. The new AFRC would serve about 359 personnel on a rotating basis, mostly on weekends. The facility would employ approximately 14 permanent full-time personnel. The maximum expected use of the new facility would be about 73 members per weekend.

Alternatives Considered. Two alternatives were evaluated in this EA.

Realignment (Preferred) Alternative. The Preferred Alternative is to construct the AFRC and associated facilities at a site along the northern boundary of RRAD, Hooks, Texas.

The No Action Alternative. CEQ regulations require analysis of the No Action Alternative in an EA, for it serves as the baseline against which the impacts of the Proposed Action and alternatives will be evaluated. Accordingly, the No Action Alternative is evaluated in this EA.

Factors Considered in Determining that an Environmental Impact Statement is not Required. No significant environmental impacts were identified in the EA (attached). Impacts were analyzed for land use, aesthetics and visual resources, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomics, transportation, utilities, and hazardous and toxic substances. In support of this EA, the U.S. Army conducted a Phase I cultural resource survey and a wetlands delineation at the Preferred Alternative site to ensure impacts to these resources would not be significant.

The central 8.5 acres of the Area of Potential Effect have been recently logged and exhibit extensive ground disturbance. Forested areas remain intact along the edges of the logged area. The combination of shovel testing and pedestrian walkover identified one archaeological site. Site 41BW760 was located in the southwest corner of the property and consists of four historic building foundations. The largest foundation belonged to the Ordnance Unit Training Center base chapel. The other three are small outbuildings of unknown function. All four buildings were constructed in 1943. Their superstructures were removed and relocated in 1967. The chapel itself was recorded in 1998 as an historic structure in its new location. It was recommended as not eligible for inclusion on the National Register of Historic Places (NRHP). Six shovel tests were placed within the site boundary but no artifacts were recovered. Based on the previous work on the chapel, the available archival documentation, and the condition of the foundations, Site 41BW760 is not eligible for inclusion on the NRHP under any of the four criteria. The State Historic Preservation Officer issued a determination of No Historic Properties Affected on August 26, 2009.

The U.S. Fish and Wildlife Service recommended project-specific field delineations be conducted in accordance to U.S. Army Corps of Engineers protocols, prior to implementing activities that could potentially impact wetlands. A wetlands delineation was conducted April 23, 2009 by the U.S. Army Corps of Engineers. One intermittent stream on the western portion of the project area was identified along with several wetland pockets along the stream corridor. Waters of the U.S. within the project area total 1,425 total linear feet (11,400 square feet) of intermittent stream. The proposed site has been harvested and based on best management practices from the Integrated Natural Resources Management Plan, a buffer of at least 50 feet has already been preserved around the delineated wetland area. This buffer meets requirements for both the state and the U.S. Army Corps of Engineers.

Implementation of the proposed realignment actions would not cause any significant adverse impacts, either individually or cumulatively, to the local environment or quality of life, provided that best management practices discussed in this EA are implemented.

Conclusion. Based on the environmental impact analyses described in the EA, which is hereby incorporated into this FNSI, it has been determined that implementation of the Proposed Action would not have a significant impact on the quality of the natural or the human environment. Because no significant environmental impact would result from implementation of the Proposed Action, an environmental impact statement is not required and will not be prepared.

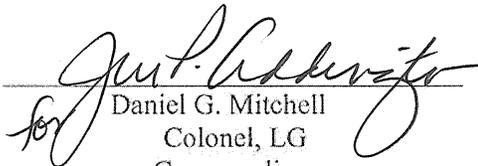
Public Comment. Public comment was invited for a period of 30 days after publication of the notice of availability in the Texarkana Gazette and The Bowie County Citizens Tribune. A copy of the EA and draft final FNSI were made available for public review at the Texarkana Public Library in Texarkana, Texas. The documents were also located on the BRAC website at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm. No comments were received.

Date: 27 Oct 2009



Bruce A. Cassella
Major General
U.S. Army Reserve, Commanding

Date: 11/3/09



for

Daniel G. Mitchell
Colonel, LG
Commanding

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ENVIRONMENTAL ASSESSMENT
CONSTRUCTION OF AN ARMED FORCES RESERVE CENTER AND
IMPLEMENTATION OF BRAC 05 RECOMMENDATIONS AT
RED RIVER ARMY DEPOT, TEXAS

Prepared by:

U.S. ARMY CORPS OF ENGINEERS
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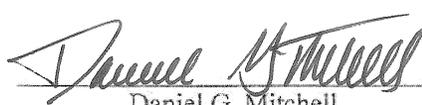
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63rd REGIONAL SUPPORT COMMAND


Bruce A. Cassella
Major General
U.S. Army Reserve, Commanding

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RED RIVER ARMY DEPOT


Daniel G. Mitchell
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ENVIRONMENTAL ASSESSMENT

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

COOPERATING AGENCIES: None

TITLE OF PROPOSED ACTION: Environmental Assessment for the Construction of an Armed Forces Reserve Center and Implementation of BRAC 05 Recommendations at Red River Army Depot, Texas

AFFECTED JURISDICTION: Bowie County, Texas

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

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APPROVED BY: Bruce A. Cassella, Major General, U.S. Army Reserve, Commanding and
Daniel G. Mitchell, Colonel, LG, Commanding

DOCUMENT DESIGNATION: Final Environmental Assessment

ABSTRACT:

This Environmental Assessment (EA) addresses the potential impacts of the proposed construction and operation of the Armed Forces Reserve Center (AFRC) at Red River Army Depot (RRAD), Texas, as proposed by the Defense Base Closure and Realignment Commission's recommendation. The Proposed Action is to construct the AFRC on 15 acres of land at RRAD, Texas. The AFRC would provide administrative, educational, assembly, kitchen, library, learning center, vault, weapons simulator, and physical fitness areas for nine U.S. Army Reserve (USAR) units and Texas Army National Guard (TXARNG) units from Atlanta and Texarkana, Texas, if the state decides to relocate those units. An Organizational Maintenance Shop would provide work bays and maintenance administrative support, and organizational storage would be provided. The total area of the proposed AFRC would be over 54,600 square feet of building space. BRAC 05 closes the Watts-Guillot USAR Center, Texarkana, Texas, and realigns the RRAD USAR Center, Hooks, Texas by relocating units to the new AFRC at RRAD. The new AFRC will accommodate TXARNG units from Readiness Centers in Atlanta and Texarkana if needed. The facility would employ approximately 14 permanent full-time personnel from the USAR and TXARNG, and would serve about 359 personnel on a rotating basis, mostly on weekends. The maximum expected use of the new facility would be about 73 members per weekend.

This EA evaluates the individual and cumulative impacts of the Proposed Action (construction and operation of the RRAD AFRC) and the No Action Alternative with respect to the following: land use, aesthetics, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomic environment, environmental justice, transportation, utilities, and hazardous and toxic substances.

The evaluation performed in this EA concludes that there would be no significant adverse impact, either individually or cumulatively, to the local environment or quality of life associated with the implementation of the Proposed Action, provided that best management practices specified in this EA are implemented.

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EXECUTIVE SUMMARY

Environmental Assessment for the Construction of an Armed Forces Reserve Center at Red River Army Depot, Texas

On September 8, 2005, the Defense Base Closure and Realignment Commission (BRAC Commission) recommended that certain realignment actions occur at Red River Army Depot (RRAD), Texas. To implement these recommendations, the U.S. Army proposes to construct a new Armed Forces Reserve Center (AFRC) and related facilities at a site at RRAD, Texas to support the changes in force structure. This Environmental Assessment (EA) has been prepared to identify, document, and discuss the possible environmental, cultural, and socioeconomic impacts associated with the proposed construction and operation of an AFRC at RRAD, Bowie County, Texas. This EA provides the necessary information to properly and fully assess the potential impacts of proposed construction and operation of the RRAD AFRC as required under the *National Environmental Policy Act* (NEPA) of 1969, as amended (42 U.S. Code [U.S.C] 4321 et seq.); the President's Council on Environmental Quality (CEQ) Regulations, 40 Code of Federal Regulations (CFR) 1500-1508; and 32 CFR Part 651, *Environmental Analysis of Army Actions*.

OVERVIEW OF PROJECT PURPOSE AND NEED

The Proposed Action is necessary to support relocation of nine U.S. Army Reserve (USAR) units and Texas Army National Guard (TXARNG) units from Atlanta and Texarkana, Texas. The AFRC would provide administrative, educational, assembly, kitchen, library, learning center, vault, weapons simulator, and physical fitness areas for the relocated units. An Organizational Maintenance Shop (OMS) would provide work bays and maintenance administrative support, and organizational storage would be provided. The total area of the proposed AFRC would be 54,671 square feet of building space. BRAC 05 closes the Watts-Guillot USAR Center, Texarkana, Texas, and realigns the RRAD USAR Center, Hooks, Texas by relocating units to the new AFRC at RRAD. The new AFRC will accommodate TXARNG units from Readiness Centers in Atlanta and Texarkana if needed. The facility would employ approximately 14 permanent full-time personnel from the USAR and TXARNG, and would serve about 359 personnel on a rotating basis, mostly on weekends. The maximum expected use of the new facility would be about 73 members per weekend, with 59 privately-owned vehicles.

OVERVIEW OF CONSIDERED PROJECT ALTERNATIVES

This EA evaluates the individual and cumulative impacts of the Preferred Alternative (construction and operation of the RRAD AFRC; the Proposed Action) and the No Action Alternative with respect to the following criteria: geographic setting and land use, aesthetics, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomic environment, environmental justice, transportation, utilities, and hazardous and toxic substances. Under the Preferred Alternative, activities would include land use alterations on an approximate 15-acre parcel of land located on RRAD south of Interstate 30 (I-30) and U.S. Highway 82. In addition to the proposed 36,925-square-foot AFRC training building, the project would include construction of a

7,300-square-foot multi-use classroom; a 9,065-square-foot OMS; and a 1,381-square-foot organizational storage unit.

Activities at the AFRC would be training-related, with no live weapons firing, no firing range, and no weapons qualification testing or training. The maintenance shop will provide work bays and maintenance administrative support. The anticipated stored waste includes used oil or other vehicle fluids that would be changed during operator maintenance activities. Examples of maintenance activities include checking tire pressure, checking and adding vehicle fluids, and changing tires.

Under the No Action Alternative, the proposed facilities would not be constructed to accommodate the BRAC recommendations. The USAR and TXARNG units would continue to use the existing facilities.

OVERVIEW OF ENVIRONMENTAL CONSEQUENCES

No significant impacts were identified. The Proposed Action would cause short-term impacts to visual resources, air quality, noise, geology and soils, water resources, biological resources, and hazardous and toxic substances during construction of the AFRC. These impacts would be caused by ground disturbance, the movement of heavy equipment, the generation of dust and vehicle exhaust, and the potential for spills or leaks from construction equipment. However, once construction is complete, the reclamation of disturbed areas would remove these impacts. Short-term beneficial impacts to socioeconomics would occur as a result of increased jobs during construction.

The Proposed Action would cause long-term impacts to land use, visual resources, soils, and hazardous and toxic substances. The land would no longer be available for harvesting timber; however, this change is compatible with the existing land use at RRAD. Site improvements would result in additional impervious surfaces; however, impact on regional infiltration would not be significant. Use of hazardous materials and generation of hazardous wastes would be minimal and likely limited to cleaning products, paint, adhesives, and military vehicle maintenance fluids. Infrastructure is available to support the Proposed Action. No impacts would occur to cultural resources as no such resources are located at or near the site.

CONCLUSION

The evaluation performed in this EA concludes that there would be no significant adverse impact, either individually or cumulatively, to the local environment or quality of life associated with the implementation of the Preferred Alternative, provided that best management practices discussed in this EA are implemented. This EA's analysis determines, therefore, that an environmental impact statement is unnecessary for implementation of the Preferred Alternative, and that a Finding of No Significant Impact is appropriate.

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LIST OF ACRONYMS

°F	degrees Fahrenheit
µg/m ³	micrograms per cubic meter
63D RSC	63 rd Regional Support Command
AADT	average annual daily traffic
AFRC	Armed Forces Reserve Center
AIRFA	American Indian Religious Freedom Act
APE	area of potential effect
AR	Army Regulation
ARPA	Archaeological Resources Protection Act
AT/FP	Anti-terrorism/Force Protection
BMP	best management practice
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibels
DoD	U.S. Department of Defense
EA	environmental assessment
EIFS	Economic Impact Forecast System
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FNSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
HVAC	heating, ventilation, and air conditioning
I-30	Interstate 30
ICUZ	Installation Compatible Use Zone
IDG	Installation Design Guide
kVA	kilovolt-amp
LEED	Leadership in Energy and Environmental Design
LSAAP	Lone Star Army Ammunition Plant
MEP	military equipment parking
MGD	million gallons per day
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NRHP	National Register of Historic Places

LIST OF ACRONYMS (continued)

OMS	Organizational Maintenance Shop
OWS	oil/water separator
POV	privately-owned vehicle
ppm	parts per million
PSD	Prevention of Significant Deterioration
RCRA	Resource Conservation and Recovery Act
ROI	region of influence
RRAD	Red River Army Depot
RRAD-WEP	Red River Army Depot-western excess property
RRRA	Red River Redevelopment Authority
RSC	Regional Support Command
RTV	rational threshold value
SWEPCO	Southwestern Electric Power Company
SWPPP	Stormwater Pollution Prevention Plan
TCEQ	Texas Commission on Environmental Quality
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
tpy	tons per year
TSCA	Toxic Substance Control Act
TWDB	Texas Water Development Board
TXARNG	Texas Army National Guard
TxDOT	Texas Department of Transportation
U.S.	United States
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USAR	U.S. Army Reserve
USARC	U.S. Army Reserve Center
USFWS	U.S. Fish and Wildlife Service

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1.0 PURPOSE, NEED AND SCOPE

On September 8, 2005, the Defense Base Closure and Realignment Commission (BRAC Commission) recommended that certain realignment actions occur on Red River Army Depot (RRAD), Hooks, Texas. These 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 recommendations must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended. This environmental assessment (EA) analyzes the potential environmental impacts associated with the United States (U.S.) Army's Proposed Action on RRAD, Hooks, Texas.

The BRAC Commission made the following recommendations concerning RRAD, Hooks, Texas:

“Close the Watts-Guillot United States Army Reserve Center, Texarkana, Texas and realign the Hooks Army Reserve Center on Red River Army Depot by relocating units to a new Armed Forces Reserve Center on Red River Army Depot, Texas. The new AFRC shall have the capability to accommodate Texas National Guard Units from the following Texas ARNG Readiness Centers: Atlanta, and Texarkana, if the state decides to relocate those National Guard units.”

To implement these recommendations, the U.S. Army proposes to construct a new Armed Forces Reserve Center (AFRC) and related facilities on the RRAD, Hooks, Texas, to support the changes in force structure. Figure 1-1 shows the location of RRAD, Hooks, Texas. Details on the Proposed Action are provided in Section 2.0.

1.1 Purpose and Need

The purpose of the Proposed Action is to provide a new AFRC on RRAD, Hooks, Texas as directed by the BRAC Commission's recommendations. The AFRC is needed to ensure that adequate training and administrative space is available to support U.S. Army Reserve (USAR) units realigned from area facilities and the addition of Texas Army National Guard (TXARNG) units from Readiness Centers in Atlanta and Texarkana.

The need for the Proposed Action is to improve the ability of the Nation to respond rapidly to challenges of the 21st century. The U.S. Army's mission is to defend the United States and its territories, support national policies and objectives, and defeat nations and other parties responsible for aggression that endangers the peace and security of the United States. To carry out these tasks, the Army must adapt to changing 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 the major initiatives that contribute to the Army's need for the Proposed Action on RRAD, Hooks, Texas.

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, U.S. Department of Defense (DoD) sought to reorganize its installation infrastructure to most efficiently support its forces, increase operational readiness, and facilitate new ways of doing business. Thus, BRAC represents more than cost savings. It supports advancing the goals of transformation, improving military capabilities, and enhancing military value. The Army needs to carry out the BRAC recommendations on RRAD, Hooks, Texas in order to achieve the objectives for which Congress established the BRAC process.

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.

1.2 Scope

This EA was developed in accordance with the *National Environmental Policy Act* (NEPA) [42 U.S. Code (U.S.C.) § 4321 et seq.]; implementing regulations issued by the President's Council on Environmental Quality (CEQ), 40 Code of Federal Regulations (CFR) Parts 1500-1508; and *Environmental Analysis of Army Actions*, 32 CFR Part 651. Its purpose is to inform decision makers and the public of the likely environmental consequences of the Proposed Action and alternatives. This EA does not include the closure of Watts-Guillot U.S. Army Reserve Center (USARC), Texarkana, Texas. That action is subject to separate NEPA consideration.

The Defense Base Closure and Realignment Act of 1990 specifies that NEPA does not apply to actions of the President, the BRAC 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), Public Law 101-510, as amended)." The law further specifies that in applying the provisions of 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 NEPA. Accordingly, this EA does not address the need for realignment.

The decision to be made is how the Army will implement the BRAC recommendations on RRAD, Hooks, Texas, and, as appropriate, carry out mitigation measures that would reduce impacts on resources. The decision on how to implement the realignment will be based on

strategic, operational, environmental, and other considerations, including the results of this analysis.

1.3 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 CFR Part 651. Upon completion of this EA, the Notice of Availability will be published in a local newspaper, *Texarkana Gazette*, and a regional newspaper, *The Bowie County Citizens Tribune*. At that point, the EA will be made available to the public for 30 days, along with a draft Finding of No Significant Impact (FNSI) at the Texarkana Public Library, 600 West Third Street, Texarkana, Texas and on the BRAC website at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm. At the end of the 30-day public review period, the Army will consider all comments submitted by individuals, agencies, and organizations on the Proposed Action, the EA, and 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.

The public may obtain information on the status and progress of the Proposed Action and the EA through the 63rd Regional Support Command (63D RSC) by contacting Mr. James Wheeler II, Environmental Division Chief, at 501-771-7992 or Jim.Wheeler@usar.army.mil.

1.4 Impact Analysis Performed

This EA identifies, documents, and evaluates environmental impacts of the proposed realignment on RRAD, Hooks, Texas. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, historians, and military technicians analyzed the Proposed Action and alternatives in light of existing conditions and identified relevant beneficial and adverse impacts associated with the actions. The Proposed Action is described in Section 2.0 and the alternatives are described in Section 3.0. Conditions considered the “environmental baseline” conditions are described in Section 4.0, Affected Environment and Consequences. The expected impacts of the Proposed Action, also described in Section 4.0, are presented immediately following the description of the environmental baseline conditions for each resource addressed in the EA. Section 4.0 also addresses the potential for cumulative impacts, and mitigation measures are identified where appropriate. Section 5.0 provides conclusions summarizing the magnitude of expected impacts, and identifies the environmentally preferred alternative. The list of preparers of this EA is presented in Section 6.0, the document distribution list is presented in Section 7.0, references cited in this document are provided in Section 8.0, and persons consulted are presented in Section 9.0.

1.5 Framework for Analysis

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, the Army is guided by relevant statutes (and their implementing regulations) and Executive Orders (EOs) that establish standards and provide guidance on environmental and natural resources management and planning. These include the Clean Air Act (CAA), Clean Water Act (CWA), Noise Control Act, Endangered Species Act (ESA), National Historic Preservation Act (NHPA), Archaeological Resources Protection Act (ARPA), Native American Graves Protection and Repatriation Act (NAGPRA), American Indian Religious Freedom Act (AIRFA), Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and Toxic Substance Control Act (TSCA). EOs bearing on the Proposed Action include EO 11988 (*Floodplain Management*), EO 11990 (*Protection of Wetlands*), EO 12088 (*Federal Compliance with Pollution Control Standards*), EO 12580 (*Superfund Implementation*), EO 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*), EO 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*), EO 13175 (*Consultation and Coordination with Indian Tribal Governments*), EO 13186 (*Responsibilities of Federal Agencies to Protect Migratory Birds*), and EO 13423 (*Strengthening Federal Environmental, Energy, and Transportation Management*). These authorities are addressed in various sections throughout this EA when relevant to particular environmental resources and conditions. The full texts of the laws, regulations, and EOs are available on the Defense Environmental Network & Information Exchange web site at <https://www.denix.osd.mil>.

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 Introduction

This section describes the Army's Proposed Action for carrying out the BRAC Commission's recommendations. The Proposed Action includes construction and future use of an AFRC. The details of the facilities and operations, equipment, and personnel for the Proposed Action are described below.

2.2 Implementation Proposed

2.2.1 FACILITIES AND OPERATIONS

The Proposed Action includes the construction and operation of the following facilities:

- 36,925-square-foot AFRC training building
- 7,300-square-foot multi-use classroom
- 9,065-square-foot Organizational Maintenance Shop (OMS)
- 1,381-square-foot organizational unit storage

Site improvements are expected to require approximately 15 acres. The AFRC would provide administrative, educational, assembly, kitchen, library, learning center, vault, weapons simulator, and physical fitness areas for nine USAR units and TXARNG units from Readiness Centers in Atlanta and Texarkana, Texas. The OMS would provide work bays and maintenance administrative support. Additionally, organizational storage would be provided.

Activities at the AFRC would be training-related, with no live weapons firing, no firing range, and no weapons qualifications testing or training. Activities at the OMS would include routine maintenance (e.g., oil change, tire rotation, etc.) or other vehicle repair as required. Occasionally, vehicles from neighboring Reserve Centers that do not have an OMS could be brought to the new OMS for maintenance and/or certain types of repair.

The facilities would be permanent construction with heating, ventilation, and air conditioning (HVAC) systems; and plumbing, mechanical, electrical, and security systems. Supporting improvements are also proposed to complement the facilities, including approximately 2,342 square yards of pavement for privately-owned vehicles (POVs); 2,688 square yards of pavement for military equipment parking (MEP); 4,849 square yards of pavement for the access road; walkways; fencing; grading, clearing and landscaping; extension of utility services; security fencing and gates; and general site improvements. Anti-terrorism/Force Protection (AT/FP) safety and security regulations would be incorporated into the facility design.

2.2.2 EQUIPMENT

Approximately 39 vehicles are anticipated to be kept on-site as a result of the realignment of USAR and TXARNG units to the new AFRC. Vehicles would include high mobility multi-purpose wheeled vehicles (Humvees); semi tractors; dump trucks; full-tracked tractors; road graders; earth scrapers; fuel-dispensing semi-trailers (5,000 gallons); flat bed, cargo, and specialty trailers; and utility trucks. Occasionally, some of these vehicles could be staged and then moved as a convoy for off-site training. The number of vehicles assumed to be on site at the new AFRC has been determined by the guidance given in Army Regulation (AR) 140-483,

wherein 60 percent of the USAR and TXARNG vehicles would be stored at the new AFRC. The remainder would be placed into an Equipment Concentration Site.

2.2.3 PERSONNEL

The new RRAD AFRC facility in Hooks, Texas would realign the USAR units from the closed Watts-Guillot USARC and the TXARNG units from Readiness Centers in Atlanta and Texarkana, Texas, if needed.

The facility would employ approximately 14 permanent full-time personnel from the USAR and TXARNG, and would serve about 359 personnel on a rotating basis, mostly on weekends. The maximum expected use of the new facility would be about 73 members per weekend, and there would be parking for about 59 POVs.

3.0 ALTERNATIVES

3.1 Introduction

A bedrock principle of 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. To support and sustain its current and future mission, the 63D RSC has programmed the construction of new facilities, including structures, roads, and parking lots.

Means to Accommodate Realigned Units. Relocation of units and establishment of new units involves ensuring that the Army has adequate physical accommodations for personnel and their operational requirements. BRAC recommendations direct the relocation of units to a new AFRC with an OMS at RRAD, Hooks, Texas.

Siting of New Construction. The Army considers both general and specific siting criteria for construction of new facilities. 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, including environmental incompatibilities.

Specific siting criteria include consideration of location of the workforce and efficient, streamlined management of functions. Collocation of similar types of functions, as opposed to dispersion, permits more efficient use of equipment, vehicles, and other assets.

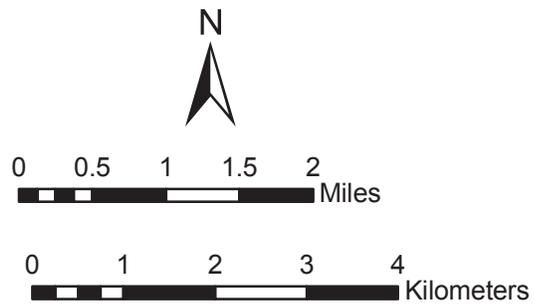
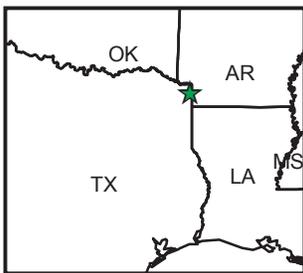
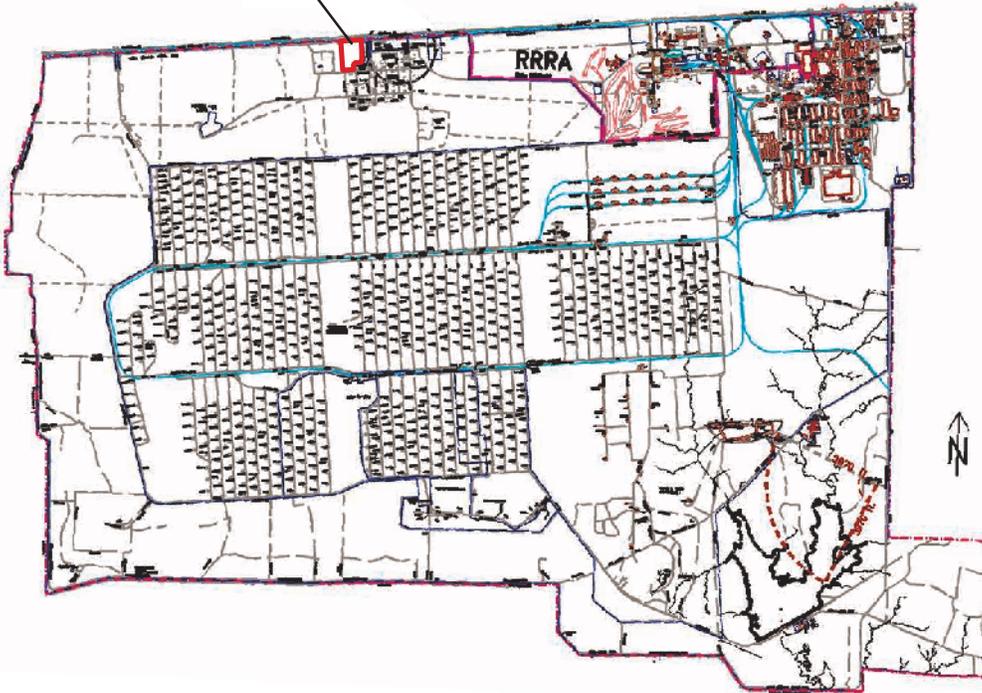
Schedule. Alternatives for scheduling of proposed realignment actions are principally affected by three factors: the availability of facilities to house realigned personnel and functions, efforts to minimize potential disruption of mission activities based on the number of personnel involved in the relocation or the amount of work to be performed, and early realization of benefits to be gained by completion of the realignments. In most cases, minor shifts in schedule would not produce different environmental results.

Army personnel at RRAD identified one site on the depot for location of the proposed AFRC. The proposed location on RRAD, Hooks, Texas is shown on Figure 3-1. The site was identified as the best location for both the USAR and the depot and best fulfills the siting criteria described above. Specifically, use of this site allows the AFRC to be near the existing TXARNG facility, thereby collocating similar types of functions and permitting more efficient use of equipment, vehicles, and other assets. Additionally, this location allows the new AFRC to be fenced out from the depot so that access through a depot access control point would not be necessary. Access to the site would be directly from U.S. Highway 82.

The Preferred Alternative and the No Action Alternative were developed for evaluation in this EA. The No Action Alternative is required to be carried forward by CEQ.

Red River Army Depot

Preferred Alternative Site Boundary



Legend

 Preferred Alternative Site Boundary

Prepared For:
U.S Army Corps of Engineers, Mobile District

Figure 3-1
Location of Preferred Alternative
on Red River Army Depot



3.2 No Action Alternative

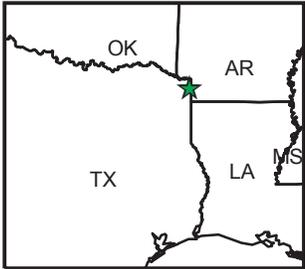
CEQ regulations require analysis of the No Action Alternative in an EA, because it serves as the baseline against which impacts of the Proposed Action and any alternatives will be evaluated. Accordingly, the No Action Alternative is evaluated in this EA.

Under the No Action Alternative, the Army would not implement the Proposed Action. USAR units and TXARNG units would continue to train at and operate from their current locations which are over utilized and not properly configured to allow the most effective training of personnel to complete mission requirements. However, routine replacement or renovation actions could occur through normal military maintenance and construction procedures as circumstances independently warrant.

3.3 Realignment (Preferred) Alternative

The Army's Preferred Alternative is to construct and operate the AFRC and associated facilities at RRAD (Figure 3-1). The Preferred Alternative consists of an approximate 15-acre parcel on the RRAD, Hooks, Texas. The site is located south of Interstate 30 (I-30) and U.S. Highway 82 on RRAD. Access to the RRAD is from I-30 exit 206 in Hooks, Texas, approximately 14 miles west of the intersection of I-30 and U.S. Highway 59. RRAD is a controlled access military installation.

The proposed site for the new AFRC has been recently cleared and is currently undeveloped. North Boundary Patrol Road is located along the northern boundary of the parcel. An open storage yard and TXARNG facility are located to the east. Bowie Avenue is located to the south, and a wooded lot is located to the west of the parcel. Access to the site would be from U.S. Highway 82. Figure 3-2 shows an aerial photograph of the Preferred Alternative site before it was cleared. The site plan analyzed in this EA was developed as a result of the design charrette held by the Army.



Legend

 Approximate Preferred Site Boundary



0 200 400 600 800 Feet

0 50 100 150 200 Meters

Prepared For:
 U.S. Army Corps of Engineers, Mobile District

Figure 3-2
 Aerial Photograph of Preferred Alternative



4.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

4.1 Introduction

This chapter describes the existing resources that could potentially be affected by the Proposed Action and alternatives. The environment described in this chapter is the baseline for the consequences that are presented for each resource and each alternative. The region of influence (ROI), or study area for each resource category, is the Preferred Alternative Site and immediate surroundings, unless stated otherwise in the individual resource category discussion. Most of the baseline information was taken from existing documentation and a site visit.

This chapter also describes potential impacts for each resource. An impact is defined as a consequence from modification to the existing environment due to a proposed action or alternative. Impacts can be beneficial or adverse, can be a primary result of an action (direct) or a secondary result (indirect), and can be permanent or long lasting (long term) or temporary and of short duration (short term). Impacts can vary in degree from a slightly noticeable change to a total change in the environment.

For this EA, short-term impacts are defined as those impacts resulting from construction, renovation, or demolition activities (e.g., those that are of temporary duration), whereas long-term impacts are those resulting from the presence of new facilities and operation of the proposed new facilities once they are constructed and commissioned for operation.

Significance criteria were developed for the affected resource categories, and for many resource categories, are necessarily qualitative in nature. Quantitative criteria can be established when there are specific numerical limits established by regulation or industry standard. These criteria are based on existing regulatory standards, scientific and environmental documentation, and/or professional judgment. Impacts are classified as significant or not significant based on the significance criteria. Significant impacts are those which would exceed the quantitative or qualitative limits of the established criteria, such as actions that would threaten a violation of Federal, state or local law or requirements imposed for the protection of the environment, or that would have adverse impacts upon public health or safety. Impacts do not necessarily mean negative changes, and any detectable change is not, in and of itself, considered to be negative. In the following discussions, to highlight adverse impacts for the decision maker, the impacts are considered adverse unless identified as beneficial.

The affected environment and baseline conditions are described for each resource in general terms for the Preferred Alternative Site or the resource-specific ROI. The affected environment description for each resource is followed by the potential impacts to the resource from the Preferred Alternative and the No Action Alternative.

4.2 Land Use

4.2.1 AFFECTED ENVIRONMENT

This section describes existing land use conditions on and surrounding the Preferred Alternative Site. It considers natural land uses and land uses that reflect human modification. Natural land use classifications include wildlife areas, forests, and other open or undeveloped areas. Human land uses include residential, commercial, industrial, utilities, agricultural, recreational, and other

developed uses. Management plans, policies, ordinances, and regulations determine the types of uses that are allowable, or protect specially designated or environmentally sensitive uses.

The following sections discuss the regional geographic setting, location, and climate, land use, and current and future development. The ROI for land use is the land within and adjacent to the limits of the Proposed Action project area.

4.2.1.1 Regional Geographic Setting, Location, and Climate

Located in the northeast corner of Texas near the “Four Corners” convergence of Texas, Oklahoma, Arkansas, and Louisiana, RRAD comprises approximately 18,000 acres in Bowie County, Texas (USACE 2007). Several smaller communities surround the installation, and a larger urban center, Texarkana, Texas-Arkansas, is located approximately 16 miles east of the installation. RRAD landscape reflects the regional geography characterized by flat to gently rolling terrain 200 to 460 feet above mean sea level (USACE 2008). The county has abundant pine and hardwood forest lands which surround and comprise portions of the installation. Additionally the county is characterized by seven major lakes: the largest being Wright Patman Lake at 20,300 acres (USACE 2007). Rainfall is abundant, averaging 47 inches a year, with moderately average low temperatures of 30° Fahrenheit (°F) in January and highs in July of 94°F. This precipitation and temperature regime allows for an almost continual growing season in the region (235 days annually) (USACE 2007).

4.2.1.2 Land Use

RRAD is classified as a Federal industrial facility under the command of the Tank Automotive and Armaments Command. Current land use arrangements were established when the installation was created in the early 1940s (USACE 2007). The original mission of the depot was ammunition storage, which required a large amount of open space for safety zones although this was later expanded to include maintenance and some training (USACE 2007). Timber management and ammunition storage are primary activities that occur on the installation. Other operational activities that occur on the installation include tank track and road wheel rebuild; maintenance and rebuilding of military vehicles; demilitarization of out-of-specification ordnance; maintenance, modification, and recertification of the Hawk, Chaparral, and Patriot missiles; and rubber products maintenance (USACE 2008).

The installation currently consists primarily of semi-improved acreage in pine and hardwood forests and storage areas (Tetra Tech 2006). Semi-improved and improved areas mainly include approximately 1,400 buildings, with 701 ammunition storage igloos, six operational igloos, and other facilities. RRAD has four firing or testing ranges, although not all are active. The Preferred Alternative Site is situated along the northern boundary of the installation in what is commonly referred to as the former Ordnance Training Center area. The site is defined on the northern boundary, immediately within the RRAD fence line, by North Boundary Patrol Road. East of the site is an empty storage lot and land immediately to the south and west of the site are heavily wooded. Bowie Avenue borders the southern boundary of the site. To the east of the site lies the Red River Redevelopment Authority (RRRA) area.

BRAC recommendations changed the land use pattern on the installation after 1995. When the new boundary for RRAD was established, many of the community, administrative and housing

land uses were established outside the new fenced boundary (USACE 2007). An approximate 765-acre area in the northeast portion of RRAD was determined to be excess, and reuse planning of the area was considered. The property was developed into the Red River Commerce Park by the RRA with industrial (manufacturing and warehousing), commercial, and office uses (USACE 2008).

4.2.1.3 Current and Future Development in the Region of Influence

The RRAD is located in a non-incorporated area of Bowie County, Texas where no zoning regulations are in effect to influence land pattern development (USACE 2007). Areas immediately surrounding RRAD are predominately rural and undeveloped (mixed forestlands), and low-density residential areas (USACE 2008). Some commercial and industrial developments are located along the northern and western borders of RRAD along existing principal roads. Over the past several years, residential and recreational developments have occurred and include the renovation and expansion of the golf course on the Red River Commerce Park, and the continued development of residential lots along the golf course. Future potential development along the northern and eastern boundaries, that would cause traffic and environmental concerns, is curtailed with the buffer area inside the installation boundary (USACE 2007).

Future planned activities for the RRAD include the construction of a new entrance and staging area for trucks (USACE 2007). The project will include a 4,000-square-foot building and a 200,000-square-foot hardstand to stage commercial trucks waiting to enter the depot. Approximately 10 miles of roadway will be replaced to accommodate truck traffic (USACE 2007).

In addition to the Red River Commerce Park, there are four other industrial parks in the ROI, including Nash Business Park, Maxwell Industrial Park, I-30 Industrial Park, and Falvey Industrial Park. The Texarkana Chamber of Commerce owns all but the Nash Business Park, and acreage within these parks is currently available for development (Texarkana Chamber of Commerce 2009a).

A recycling center is planned east of the proposed AFRC. Current plans are for cardboard recycling with the potential for segregating metals in the future. The recycling center will be operated by the RRAD Morale, Welfare and Recreation office.

4.2.2 CONSEQUENCES

Considerations for impacts to land use include the land on and adjacent to the Proposed Action project area, the physical features that influence current or proposed uses, pertinent land use plans and regulations, and land availability. Conformity with surrounding land use is of utmost importance.

Potential impacts to land use are considered significant if the Proposed Action would:

- Conflict with applicable ordinances and/or permit requirements;
- Cause nonconformance with the current general plans and land use plans, or preclude adjacent or nearby properties from being used for existing activities; or

- Conflict with established uses of an area requiring mitigation.

4.2.2.1 Preferred Alternative

Potential impacts to land use from the Preferred Alternative would not be significant. The Preferred Alternative would be contained within the existing RRAD property and would not present conflicts or nonconformance with current local land use or zoning designations. Existing land uses external to the installation would not be affected by land-use decisions related to the Preferred Alternative; thus, there would be no discernible impact to these land uses.

Under the Preferred Alternative, there would be an irretrievable commitment of land resources required for construction and operation of new facilities; this commitment of land resources is irreversible because the land likely cannot be completely restored to its original condition and other uses would be precluded during the time the land is being used for the proposed use.

4.2.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to land use.

4.3 Aesthetics and Visual Resources

4.3.1 AFFECTED ENVIRONMENT

This section describes the existing aesthetic and visual resource conditions in the area of the Preferred Alternative Site. Visual resources include natural and manmade physical features that provide the landscape its character and value as an environmental resource. Landscape features that form a viewer's overall impression about an area include landform, vegetation, water, color, adjacent scenery, scarcity, and constructed modifications to the natural setting. The ROI for aesthetics includes the areas visible from the Proposed Action construction location and areas from which the Proposed Action construction location is visible.

RRAD is located in a rural area. The population within 1 mile of the depot boundaries totals an estimated 5,360 people. Most of the land surrounding the depot is occupied by rolling hills and pine and hardwood forests. The depot consists of primarily semi-improved acreage in pine and hardwood forests and storage areas (USACE 2007). The RRAD Installation Design Guide (IDG) prescribes the visual character of the installation, and its roads and facilities. The IDG divides the depot into visual zones that have the same general uses and visual characteristics. The Preferred Alternative Site is located in the visual zone, Industrial 1. Industrial 1 Visual Zone, found in the main cantonment, consists of two areas: a large group of industrial facilities east of Avenue I, and a slightly smaller group of similar facilities making up the west grounds of the cantonment. The buildings, all of which are two to three stories tall, are large, rectangular structures, typical of industrial or factory buildings (USACE 2007).

The northern boundary of the proposed site for the AFRC is defined by North Boundary Patrol Road, immediately within the depot's fence. U.S. Highway 82 parallels North Boundary Road outside the depot boundary. An empty storage lot is found immediately to the east of the site. Land immediately to the south and west of the site are heavily wooded. Bowie Avenue runs east to west along the southern boundary of the site. Evidence of tree harvesting at the site includes slash and stumps. Several debris piles exist along the eastern boundary of the site. Examples of

the debris include black plastic sheeting, a vehicle leaf spring, rusty shovel head, concrete mock-up bombs, rusty remains of metal bucket, metal conduit, broken iron piping, and broken concrete (AGEISS Inc. 2009b). At least three foundations are located in the southwest corner of the site reported to be remnants from previous training operations (AGEISS Inc. 2009b).

4.3.2 CONSEQUENCES

Potential impacts to aesthetic and visual resources are considered significant if the Proposed Action would substantially degrade the natural or constructed physical features in the area of the Preferred Alternative Site that provide the area its character and value as an environmental resource. The magnitude of any impact would be primarily determined by the number of viewers affected, viewer sensitivity to changes, distance of viewing, and compatibility with existing land use.

4.3.2.1 Preferred Alternative

Potential impacts to visual and aesthetic resources from the Preferred Alternative would not be significant. The Preferred Alternative would cause minor short-term visual impacts resulting from ground disturbance; the presence of workers, vehicles, and equipment; and the generation of dust and vehicle exhaust associated with construction of the proposed facilities. However, once construction is complete, the reclamation of disturbed areas would remove these visual impacts.

Construction of the proposed AFRC would result in some long-term visual impacts to the site. Buildings and parking areas would replace undeveloped land. However, beneficial impacts would occur from cleanup of the debris currently at the site and the construction of a modern, landscaped building. The AFRC would be compatible with surrounding land use and aesthetic resources would be considered during the design of the facilities. The proposed AFRC would not conflict with the RRAD Master Plan or the IDG.

Operations at the proposed AFRC would result in minor adverse aesthetic impacts, including increased traffic and nighttime light on weekends when the facilities are in use. The maximum number of individuals reporting on any given weekend is expected to be approximately 73; only 14 full-time personnel would commute to the site daily.

4.3.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to aesthetics and visual resources.

4.4 Air Quality

4.4.1 AFFECTED ENVIRONMENT

This section describes the existing air quality conditions at and surrounding the Preferred Alternative Site. Ambient air quality conditions are discussed first followed by emission sources in the area of the Proposed Action.

4.4.1.1 Ambient Air Quality Conditions

The ambient air quality in an area can be characterized in terms of whether it complies with the primary and secondary National Ambient Air Quality Standards (NAAQS). The CAA (42 U.S.C. 7401 et seq.) requires the U.S. Environmental Protection Agency (EPA) to set NAAQS for pollutants considered harmful to public health and the environment. National primary ambient air quality standards define levels of air quality which the EPA has determined as necessary to provide an adequate margin of safety to protect public health, including the health of “sensitive” populations such as children and the elderly. National secondary ambient air quality standards define levels of air quality which are deemed necessary to protect the public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. NAAQS have been established for six criteria pollutants: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter (which includes both particulate matter with an aerodynamic size less than or equal to 10 microns and particulate matter with an aerodynamic size less than or equal to 2.5 microns), and sulfur dioxide. Table 4-1 lists the NAAQS primary standards for each criteria pollutant.

Table 4-1. National Ambient Air Quality Standards.

Pollutant	Standard Value
Carbon monoxide	
8-hour average	9 ppm
1-hour average	35 ppm
Lead	
Quarterly average	1.5 $\mu\text{g}/\text{m}^3$
Nitrogen dioxide	
Annual arithmetic mean	0.053 ppm
Ozone	
8-hour average (2008 standard)	0.075 ppm
Particulate matter less than 10 microns	
24-hour average	150 $\mu\text{g}/\text{m}^3$
Particulate matter less than 2.5 microns	
Annual arithmetic mean	15.0 $\mu\text{g}/\text{m}^3$
24-hour average	35 $\mu\text{g}/\text{m}^3$
Sulfur dioxide	
Annual arithmetic mean	0.03 ppm
24-hour average	0.14 ppm

Source: 40 CFR 50.4 through 50.13

$\mu\text{g}/\text{m}^3$ micrograms per cubic meter

ppm parts per million

The primary state regulatory authority for air quality in Bowie County, Texas is the Texas Commission on Environmental Quality (TCEQ). Bowie County is in the TCEQ’s Region 5, Tyler Air Quality Region.

General air quality monitoring is conducted in areas of high population density and near major sources of air pollutant emissions. Rural areas are typically not considered in such monitoring. Regions that are in compliance with the NAAQS are designated as attainment areas. Areas for which no monitoring data are available are designated as unclassified and are considered to be in attainment of the NAAQS. A nonattainment status is designated for areas where the applicable NAAQS are not being met. A maintenance status is designated for areas that have had a history of nonattainment, but are now consistently meeting the NAAQS. Maintenance areas have been re-designated by the EPA from “nonattainment” to “attainment with a maintenance plan.”

Bowie County, Texas is part of the EPA Shreveport-Texarkana-Tyler Intrastate Air Quality Control Region. Bowie County’s air quality meets the NAAQS and is thus classified as being in attainment for carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide.

4.4.1.2 Regional Air Pollutant Emissions Summary

The region near RRAD is mainly rural, with few major industrial sources of air pollutants. Most of the emissions in Bowie County, Texas originate from highway vehicles and non-road agricultural vehicles rather than from industrial facilities.

Regional air pollutant emissions from reported sources are listed below in Table 4-2 for Bowie County, Texas for the year 2002, the most recent year available from the EPA. Emissions from nonpoint and mobile sources are listed under Area Source and emissions from industrial facilities are listed under Point Source.

Table 4-2. Air Emissions Reported for Bowie County, Texas, for Calendar Year 2002.

Pollutant	2002 Emissions (tpy)		
	Area Source ^a	Point Source ^b	Total
Particulate matter less than 2.5 microns	2,282	117	2,399
Particulate matter less than 10 microns	17,407	257	17,664
Carbon monoxide	29,625	346	29,971
Nitrogen oxides	6,759	270	7,029
Sulfur dioxide	643	172	815

Source: EPA 2009a

tpy tons per year

- a. Any source of air pollution that is released over a relatively small area but which cannot be classified as a point source, and which may include vehicles and other small engines, small businesses, and household activities that release hydrocarbons. The category includes nonpoint and mobile source emissions.
- b. A stationary location or fixed facility from which pollutants are discharged, such as a factory smokestack.

The TCEQ collects detailed information about air pollutants emitted from industrial point sources in Texas via their Point Source Emissions Inventory. The facility emissions for the year 2006 in Bowie County, Texas are listed in Table 4-3.

Table 4-3. Facility Air Emissions from Bowie County, Texas for Calendar Year 2006.

Facility	Criteria Pollutant (tpy)				
	Carbon Monoxide	Nitrogen Oxides	Sulfur dioxide	Particulate Matter < 2.5 microns	Particulate Matter < 10 microns
Alumax Mill Products Inc	136.49	91.06	1.30	77.12	77.12
West Frazier Timber Company	105.10	19.83	9.99	13.32	60.03
Lone Star Army Ammunition Plant	9.72	3.29	0.02	0.24	0.24
Red River Army Depot	70.73	143.83	179.52	5.46	31.75

Source: TCEQ 2008b

tpy tons per year

Under the rules found in Title 30, Texas Administrative Code Section 116.110, any entity that plans to construct a new facility that will emit, or modify an existing facility that already emits, air contaminants in Texas must take one of the following steps before any actual work on the facility begins:

- 1) Obtain a state air permit by following the general application process described in Title 30, Texas Administrative Code, Section 116.111.
- 2) Satisfy the conditions for a standard permit.
- 3) Satisfy the conditions for a flexible permit.
- 4) Satisfy the conditions for all relevant permits by rule.
- 5) Ensure that the criteria for a *de minimis facility* or source stated in Title 30 Texas Administrative Code, Section 116.119 are satisfied.

According to Title 30 Texas Administrative Code, Section 116.119, registration or authorization prior to construction is not required if the facility or source at a site use the following materials at no more than the following rates: (A) Cleaning and stripping solvents, 50 gallons per year; (B) coatings (excluding plating materials), 100 gallons per year; (C) dyes, 1,000 pounds per year; (D) bleaches, 1,000 gallons per year; (E) fragrances (excluding odorants), 250 gallons per year; and (F) water-based surfactants/detergents, 2,500 gallons per year.

The Title V Operating Permit Program under 40 CFR 70 requires sources that meet the definition of a “major source” of criteria pollutants or hazardous air pollutants to apply for and obtain a Title V operating permit. Hazardous air pollutants, also known as toxic air pollutants or air toxics, are those pollutants that cause or may cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental and ecological effects. EPA is required to control 187 hazardous air pollutants. Examples of toxic air pollutants include benzene, which is found in gasoline; perchloroethylene, which is emitted from some dry cleaning facilities; and methylene chloride, which is used as a solvent and paint stripper by a number of industries.

The definition of a major source for criteria pollutants is dependent on the air quality attainment status of the region where the source is located; that is, whether the region is in attainment or non-attainment with the NAAQS. Major sources in an attainment area are those with the potential to emit more than 100 tons per year (tpy) of any criteria pollutant. Lower thresholds

apply in non-attainment areas, but only for the pollutants that are in non-attainment. A Prevention of Significant Deterioration (PSD) permit may be required for a major source if emissions of any regulated air pollutant exceed 100 tpy. A PSD review requires additional modeling to determine if the new emissions will have a negative impact on the NAAQS of the surrounding air quality. Hazardous air pollutants have a major source threshold of 10 tpy for a single hazardous air pollutant or 25 tpy for any combination of hazardous air pollutants. Existing RRAD operations are performed under a PSD permit for stationary sources (USACE 2008).

A low potential for radon gas exposure exists in Bowie County, Texas. Radon is a radioactive gas that comes from the decay of radium and exists in varying amounts in most soils. Because radon is a gas, it can move through soil and into the atmosphere or into a building structure. Prolonged exposure to high levels of radon can lead to lung cancer. The EPA Map of Radon Zones assigns each of the counties in the United States into one of three zones based on radon potential. Bowie County, Texas is assigned to Zone 3, with a predicted average indoor radon screening level less than 2 picocuries per liter (EPA 2009b). Zone 3 is considered to have the lowest potential for radon.

4.4.1.3 Conformity

Section 176(c)(1) of the CAA requires Federal agencies to ensure that their actions conform to applicable implementation plans for the achievement and maintenance of the NAAQS for criteria pollutants. To achieve conformity, a Federal action must not contribute to new violations of standards for ambient air quality, increase the frequency or severity of existing violations, or delay timely attainment of standards in the area of concern (for example, a state or a smaller air quality region). The EPA general conformity regulations (40 CFR 93, Subpart B) contain guidance for determination of whether a proposed Federal action would cause emissions to be above certain levels in locations designated as nonattainment or maintenance areas. By definition, a “maintenance area” is a region that was previously in nonattainment, but that EPA or the state has re-designated as an attainment area with a requirement to develop a maintenance plan.

Federal agencies prepare written Conformity Determinations for Federal actions that are in or affect NAAQS nonattainment areas or maintenance areas when the total direct or indirect emissions of nonattainment pollutants (or their precursors in the case of ozone) exceed specified thresholds. Conformity with the EPA-approved State Implementation Plan is demonstrated if the project emissions fall below the threshold value *de minimus* emissions.

The Proposed Action in Bowie County, Texas is located in an area that has been designated as in attainment for all criteria pollutants. Therefore, the Proposed Action falls into conformity with the EPA-approved State Implementation Plans and a written Conformity Determination is not required.

4.4.2 CONSEQUENCES

Potential impacts to air quality are considered significant if the Proposed Action would:

- Increase ambient air pollution above any NAAQS;
- Contribute to an existing violation of any NAAQS;

- Interfere with or delay timely attainment of NAAQS; or
- Impair visibility within any federally mandated PSD Class I area.

4.4.2.1 Preferred Alternative

Overall, potential impacts to air quality from the Preferred Alternative would not be significant. Short-term air quality impacts would occur from construction activities associated with the movement of heavy equipment. Construction activities would be temporary and would occur in a localized area. Contaminants generated from construction would include particulate matter, vehicle emissions, and increased wind-borne dust (i.e. fugitive dust). Best management practices (BMPs) would be implemented to minimize generation of fugitive dust. Within the construction site, appropriate BMPs would be identified that would provide optimum dust suppression. BMPs typically utilize (but are not limited to) either wind speed reduction or water suppression strategies (or both) during construction by fencing or wetting areas of soil disturbance. Vehicular and construction equipment exhaust would be a source of pollutant emissions, but would have a negligible impact on air quality. The emissions from construction activities and workers traveling to and from the site would be minor compared to the existing total vehicular emissions in the area.

Long-term impacts associated with operation of the proposed AFRC training building, multi-use classroom, OMS, and organizational unit storage are not likely to occur. No fueling facilities, underground storage tanks, or paint booths would be required for the Proposed Action. The standard HVAC system would not significantly contribute to air emissions. The vehicles associated with the use of these facilities by the estimated 73 members per weekend would not be expected to result in significant impacts to air quality because the incremental increase in motor vehicle emissions would not increase criteria pollutant concentrations above the NAAQS. Similarly, the emissions produced by the approximately 39 vehicles kept on-site would not increase criteria pollutant concentrations above the NAAQS.

According to Title 30 Texas Administrative Code, Section 116.119, registration or authorization prior to construction is not required if the facility at a site uses specified materials at a rate no more than that prescribed in the code. Those rates are listed in Section 4.4.1.2 of this EA. The Preferred Alternative is not expected to use the materials at rates greater than those specified.

Because Bowie County, Texas and the RRAD vicinity are in Zone 3 for radon potential, a low potential exists for radon screening levels greater than 2 picocuries per liter within any building in the region. Because this estimated radon level is a county-wide potential based on regional factors such as geologic provinces, radon monitoring could still be conducted on a regular basis to insure that the radon level remains low.

4.4.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to air quality.

4.5 Noise

4.5.1 AFFECTED ENVIRONMENT

This section describes the existing noise conditions in the area of the Preferred Alternative Site. Noise measurement is discussed first, followed by noise sources in the area of the site.

4.5.1.1 Noise Measurement

Noise is generally defined as unwanted sound. Sound is all around us; it becomes noise when it interferes with normal activities such as speech, concentration, or sleep. Noise associated with military installations is a factor in land use planning both on- and off-post. Noise emanates from vehicular traffic associated with new facilities and from project sites during construction. Ambient noise (the existing background noise environment) can be generated by a number of noise sources, including mobile sources, such as automobiles and trucks, and stationary sources such as construction sites, machinery, or industrial operations. In addition, there is an existing and variable level of natural ambient noise from sources such as wind, streams and rivers, wildlife and other sources.

Sound is measured with instruments that record instantaneous sound levels in decibels (dB). A-weighted sound level measurements (dBA) are used to characterize sound levels that can be sensed by the human ear. The typical measurement for quieter sounds, such as rustling leaves or a quiet room, is from 20 to 30 dBA. Conversational speech is commonly 60 dBA, and a home lawn mower measures approximately 98 dBA. All sound levels discussed in this EA are A-weighted.

4.5.1.2 Noise Sources in the area of the Preferred Alternative

Existing noise-producing activities on RRAD include ammunition manufacturing and packing in indoor manufacturing areas, ordnance demolition in the southern portion of the depot, firing ranges, and traffic on roadways. Ordnance demolition will cease after realignment of the depot has been completed as described in the EA for Disposal and Reuse of Lone Star Army Ammunition Plant and Red River Army Depot, Texas (USACE 2008).

The Army has adopted the Installation Compatible Use Zone (ICUZ) program to assess the noise levels for military installations to provide local government with the opportunity to protect people from unhealthy and/or annoying levels of noise by restricting “noise-sensitive” development in areas of high noise exposure. The Army classifies land use compatibility for long-term average noise into “noise zones.” The only source of noise at RRAD that would merit land use planning is from explosions. Previous noise studies at the depot found that, based on long-term noise contours, zones for the highest levels of noise fell inside the installation boundary. The center of the noise zones lies in the southeastern section of the RRAD facility. One study found that peak noise levels can extend beyond the depot’s southern boundary when blasting takes place, even during favorable weather conditions and indicated the potential for occasional noise complaints caused by peak impulse noise events. Most previous noise complaints have come from communities to the south and east of the installation (USACE 2008).

The Preferred Alternative Site is located at the northern boundary of the depot. Existing sources of noise near the proposed site include traffic on area roadways, including U.S. Highway 82 to

the north. Sources of noise near the site are limited as the adjacent lands to the west and south are heavily wooded and an empty storage lot is located to the east. The closest communities to the site are New Boston, approximately 2 miles to the west and Hooks, approximately 2 miles to the east.

4.5.2 CONSEQUENCES

Potential noise impacts resulting from the Proposed Action are evaluated with respect to the potential for:

- Annoyance – noise can impact the performance of various every day activities such as communication and watching television in residential areas. Sound levels that cause annoyance vary greatly by individual and background conditions.
- Hearing loss – one-time exposure to an intense “impulse” sound such as an explosion or by long or repeated exposure to sounds at or above 85 dBA can cause hearing loss (NIDCD 2007).
- Sleep interference, which is of great concern in residential areas.

4.5.2.1 Preferred Alternative

Potential noise impacts from the Preferred Alternative would not be significant. Minor adverse short-term noise impacts related to the construction of the AFRC and associated facilities would occur. There are no residences adjacent to the site. Short-term noise impacts during construction would include noise from large equipment such as bulldozers, graders, excavators, dump trucks, and concrete mixer trucks. This type of construction equipment generates noise levels of about 85 dBA at 50 feet (Hanson et al. 2006). Noise and sound levels would be typical of new construction activities and would be intermittent. Impacts of construction noise could be reduced by employing BMPs, such as confining construction activities to normal working hours and employing noise-controlled construction equipment to the extent possible.

Once the facilities become operational, adverse long-term noise impacts would not be expected from their day-to-day use. Once facilities are constructed, noise would be generated by facility operations and the vehicles associated with these facilities. Aside from negligible HVAC-related noise, the facilities would not generate high levels of noise themselves. During power outages, operation of emergency generators could cause minor, short-term noise impacts. Most noise is usually created by vehicles associated with these facilities, including organizational vehicles used for training and operations, government and private delivery vehicles, and personal vehicles used for commuting purposes. Under the Proposed Action, approximately 359 personnel would use the AFRC. However, as a reserve center, the majority of these individuals would report to the site on weekends and not all would report on the same weekend. The maximum number of individuals reporting on any given weekend is expected to be approximately 73 and only 14 full-time personnel would commute to the site daily. This use would contribute negligible amounts of traffic noise to the current noise environment.

4.5.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to noise levels on or surrounding the Preferred Alternative Site.

4.6 Geology and Soils

4.6.1 AFFECTED ENVIRONMENT

This section describes the existing geology and soil conditions in the area of the Preferred Alternative Site. Geologic and topographic conditions are discussed first, followed by soils, and prime farmland. The ROI for geology and soils is the land within the Proposed Action project area.

4.6.1.1 Geologic and Topographic Conditions

The Preferred Alternative Site slopes gently towards the southwest. The elevation of the site ranges from 360 to 370 feet above mean sea level. The average gradient at the surface is approximately 2 percent sloping to the southwest (Gravity College 2009). The bedrock at the Preferred Alternative Site is composed of Paleocene rocks belonging to the Wilcox and Midway Groups (University of Texas 1992). These rocks are primarily composed of chalk and marls in beds that are tilted south and east (University of Texas 1996).

Historical data of seismic activity indicate that damaging earthquakes in Texas are very rare. Damage to structures and human life caused by earthquakes in Texas are much less than the damage caused by earthquakes in other parts of the United States (University of Texas 2009).

4.6.1.2 Soils

The Preferred Alternative Site is entirely covered by soils represented by one mapping unit, the Annona loam, 1 to 3 percent slopes. This mapping unit is characterized by moderate drainage, very slow infiltration rate, and moderately high susceptibility to wind erosion (USDA NRCS 2009a).

4.6.1.3 Prime Farmland

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses. Prime farmland could be cultivated land, pasture land, forest land, or other land, but it is not urban or built-up land or water areas (USDA NRCS 2009b). Of the approximately 15 acres considered for the proposed AFRC at the Preferred Alternative Site, none are considered prime farmland (USDA NRCS 2009b). Prime farmland is protected by the Farmland Protection Policy Act (FPPA) (7 CFR Parts 657 and 658); however, because the proposed AFRC would be built in areas that are not considered prime farmland, the FPPA is not applicable to the Preferred Alternative Site.

4.6.2 CONSEQUENCES

Impacts to geology or soils are considered significant if the Proposed Action would:

- Expose people or structures to major geologic hazards;

- Cause substantial erosion or siltation;
- Cause substantial land sliding; or
- Cause substantial damage to project structures/facilities.

4.6.2.1 Preferred Alternative

Impacts to geology and soils from the Preferred Alternative would not be significant. The total site improvements associated with the AFRC would occupy about 3.4 acres, resulting in 3.4 acres of impervious surface. The impact of this on the regional infiltration at the vicinity of the site would not be significant.

Construction of the proposed AFRC would involve excavation, grading, and movement of heavy equipment at the Preferred Alternative Site. These activities would disturb the surface soil, thereby increasing the potential for soil erosion by wind and runoff. The USAR construction contractor would be required to submit a Notice of Intent to the TCEQ in order to obtain coverage under the Construction General Permit No. TXR150000 (TCEQ 2008a). The Construction General Permit requires implementation of activities to control soil erosion during construction as well as topsoil management and revegetation. Erosion control during construction activities could include the use of hay bales and silt fencing, as appropriate, to prevent the movement of soils into low-lying areas, and could also include scheduling construction activities for periods of lowest precipitation. Once the facilities are operational and new vegetation is in place, additional erosion of topsoil would be minimal and would be limited or mitigated through adherence to a Stormwater Pollution Prevention Plan (SWPPP) as described in Section 4.7.2.1.

The construction of the AFRC would not affect any prime farmland.

4.6.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to geologic or soil resources.

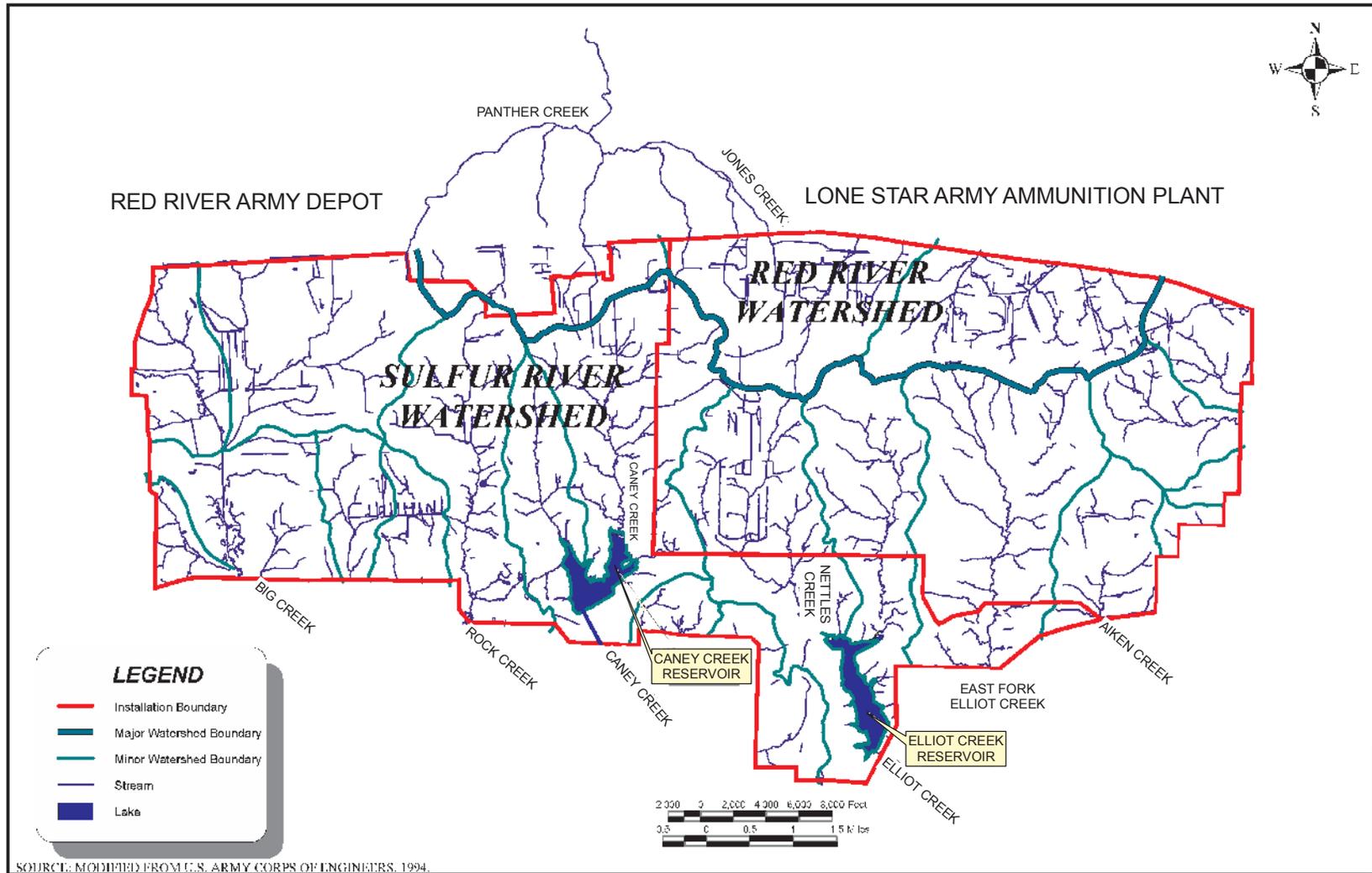
4.7 Water Resources

4.7.1 AFFECTED ENVIRONMENT

This section describes existing water resources on and in the area of the Preferred Alternative Site, including surface and groundwater resources. Surface water includes lakes, rivers, and streams and is important for a variety of reasons, including economic, ecological, recreational, and human health. Groundwater comprises the subsurface hydrogeologic resources of the physical environment. This section also discusses floodplains. Wetlands are discussed in Section 4.8.1.4. The ROI for water resources includes the Preferred Alternative Site and areas downstream from the Proposed Action project area.

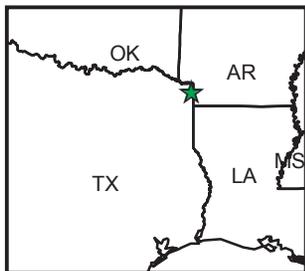
4.7.1.1 Surface Water

Locally, a number of streams, ponds, and two reservoirs, Caney Creek and Elliott Creek Reservoirs, occur in the area of the Preferred Alternative Site (Figure 4-1). The Preferred Alternative Site is located in the Lower Sulfur Watershed (HUC 11140302) of the Big Cyprus – Sulfur Watershed (HUC 111403) (USGS 2009). Surface water from the Preferred Alternative



SOURCE: MODIFIED FROM U.S. ARMY CORPS OF ENGINEERS, 1994.

Image Source: Integrated Natural Resources Management Plan, Red River Army Depot and Lone Star Army Ammunition Plant, Texarkana, Texas; March 2006; prepared by Tetra Tech EM, Inc.



Prepared For:
U.S Army Corps of Engineers, Mobile District

Figure 4-1
Red River Army Depot Surface Water Features



Site flows southwest across the site (URS 2009a) and is collected in drainage ditches and conveyed to an unnamed creek flowing south and eventually into Big Creek. Big Creek flows south then east until emptying into the U.S. Army Corps of Engineers (USACE) Federal flood control facility, Wright Patman Lake. Wright Patman Lake supplies water to the city of Texarkana, Texas and provides flood control for the Sulphur and Red Rivers. Wright Patman Lake discharges to the Sulphur River which travels southeast until flowing into the Red River, which eventually drains into the Mississippi River and the Gulf of Mexico.

Caney Creek Reservoir was constructed in 1941 with a total capacity of approximately 1,340 acre-feet and is used by RRAD as the primary source of potable water. Elliot Creek Reservoir was constructed in 1942 with a total capacity of approximately 1,930 acre-feet and is used primarily for outdoor recreation (U.S. Army 2006).

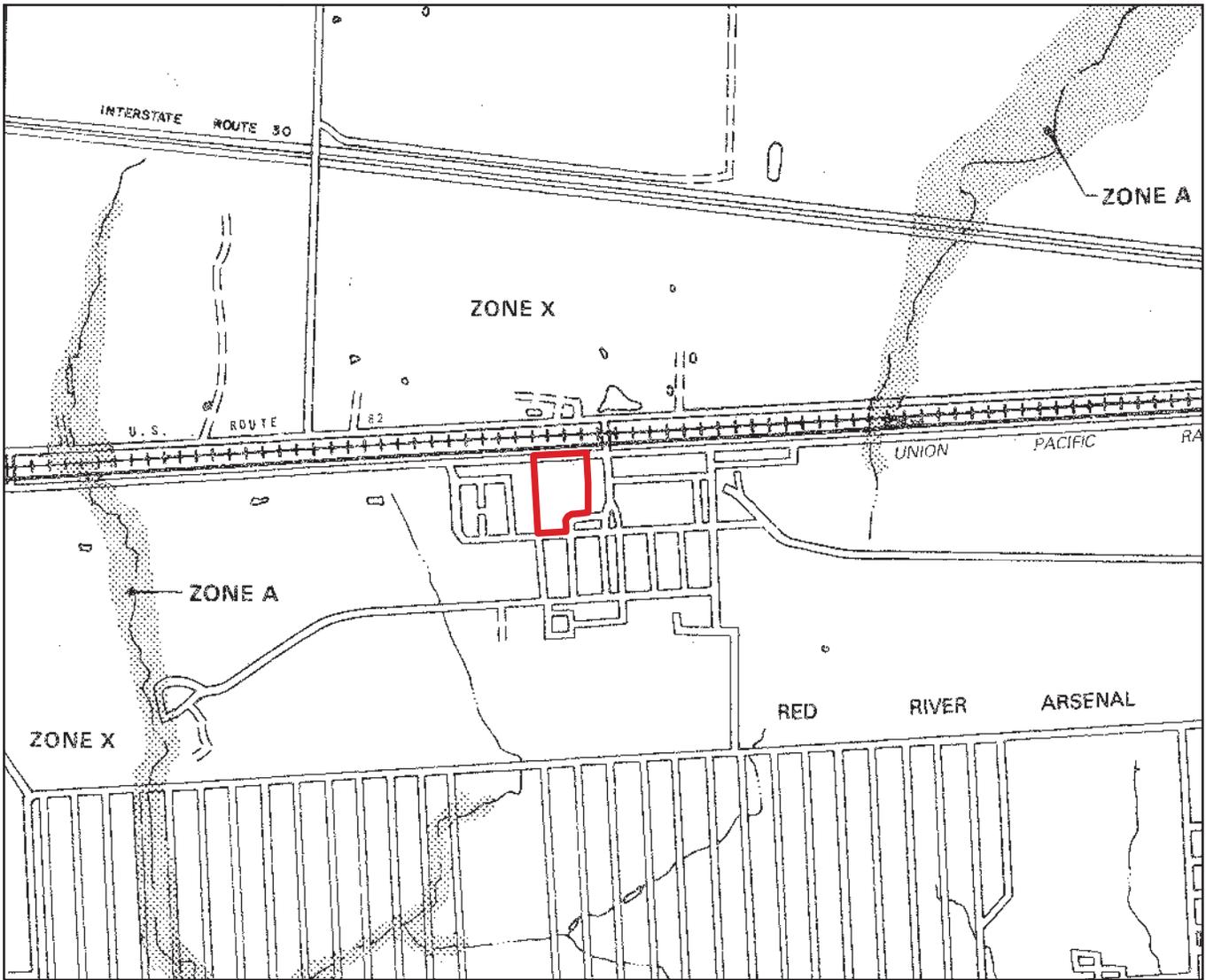
4.7.1.2 Hydrogeology/Groundwater

The Nacatoch (subcrop) Aquifer underlies the Preferred Alternative Site as identified by the Texas Water Development Board (TWDB) (TWDB 2009). Groundwater under the Preferred Alternative Site is found in the uppermost Nacatoch Aquifer consisting of overburden material and in underlying weathered shale. Groundwater at the Preferred Alternative Site is found at shallow depths ranging from near the surface along creek bottoms to approximately 30 to 40 feet below land surface along ridgelines (U.S. Army 2006). Groundwater obtained from the Nacatoch Aquifer is generally alkaline, high in sodium bicarbonate, soft and increases in dissolved-solids concentrations in downdip portions of the aquifer, as found under the Preferred Alternative Site. Primary uses of groundwater from the Nacatoch Aquifer include rural domestic and livestock purposes (TWDB 1995). Groundwater underlying the Preferred Alternative Site is classified as Class III and is not suitable for human consumption (Boone 2009).

Local groundwater flow direction across the Preferred Alternative Site is estimated to be approximately southwest, coinciding with the direction of surface water drainage towards the unnamed creek along the west boundary.

4.7.1.3 Floodplains

EO 11988, *Floodplain Management*, requires that development in floodplains be avoided if practicable. The Preferred Alternative Site is in an area determined by the Federal Emergency Management Agency (FEMA) to be outside the 500-year floodplain (Zone X) as shown on the FEMA issued Flood Insurance Rate Map (FEMA 2009) (Figure 4-2).



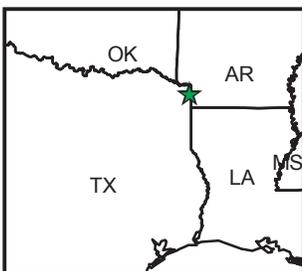
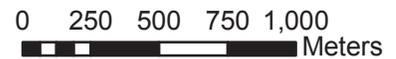
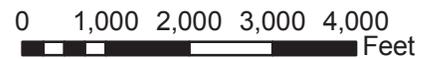
Bowie County, Texas: Unincorporated Areas

Source: FEMA FIRMeTte using the FEMA Map Service Center Viewer

Notes: This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line.

Legend

-  Approximate Preferred Site Boundary
-  Special Flood Hazard Areas Inundated by 100-Year Flood
- ZONE A - No base flood elevations determined
-  Other Areas
- ZONE X - Areas determined to be outside 500-year flood plain.



Prepared For:
U.S Army Corps of Engineers, Mobile District

Figure 4-2
Red River Army Depot Flood Map



4.7.2 CONSEQUENCES

Potential impacts to water resources, including surface water and groundwater are considered significant if the Proposed Action would:

- Irreversibly diminish water resource availability, quality, and beneficial uses;
- Reduce water availability or interfere with a potable supply or water habitat;
- Create or contribute to overdraft of groundwater or exceed a safe annual yield of water supply sources;
- Result in an adverse impact on water quality or an endangerment to public health by creating or worsening adverse health hazard conditions;
- Result in a threat or damage to unique hydrological characteristics; or
- Violate an established law or regulation that has been adopted to protect or manage water resources of an area.

Potential impacts that would be considered significant related to floodplain management include:

- Potential damage to structures located in the floodplain; and
- Any change to the features, elevation, or extent of the floodplain as a result of flood protection measures or other structures being added or removed from the floodplain.

4.7.2.1 Preferred Alternative

Impacts to water resources from the Preferred Alternative would not be significant. There would be no measurable reduction in surface water quality or availability.

Additional runoff to surface water would occur as a result of an increase in impermeable surfaces associated with buildings, roads, and parking lots. Stormwater collection measures incorporated in the design of the proposed AFRC would direct runoff to a stormwater management area for temporary storage and eventual discharge to surface water.

The USAR would be required to obtain permit coverage for the Texas Pollutant Discharge Elimination System (TPDES) program Construction General Permit No. TXR150000 for construction activities. Permit coverage under TCEQ TPDES is required in provisions of Section 402 of the CWA and Chapter 26 of the Texas Water Code (TCEQ 2008a). Steps necessary to obtain permit coverage under TCEQ TPDES Construction General Permit No. TXR150000 include implementation of a SWPPP, submission of a Notice of Intent (NOI) to TCEQ, posting of NOI and Site Notice, and submission of a copy of the NOI to the Municipal Separate Storm Sewer System (MS4) Operator. As the USAR would be a tenant of RRAD, they would be subject to the existing RRAD SWPPP.

Local groundwater recharge would be slightly reduced due to the addition of impervious surfaces and subsequent reduction of infiltrating precipitation. About 3.4 acres of the approximate 15-acre site would be capped by impermeable surfaces. However, the reduction in groundwater recharge would not have a significant impact on the regional groundwater supply.

Activities at the proposed AFRC would not impact surface water or groundwater quality beneath or in the area surrounding the proposed AFRC. In addition to the Construction General Permit described above, the USAR would be required to comply with the existing RRAD Industrial Storm Water Multi-Sector General Permit issued by the TCEQ. The state of Texas exercises permitting authority under the TPDES program. This permit applies to vehicle maintenance activities that would be conducted at the AFRC.

Potential nonpoint stormwater impacts would not be significant with implementation of BMPs identified in the SWPPP. BMPs would be selected, designed, installed, implemented and maintained in accordance with good engineering practices to eliminate or reduce all pollutants in the stormwater discharge, as well as any more stringent measures necessary to meet Texas water quality standards provisions.

Because the Proposed Action does not entail construction within the 100-year floodplain, there would be no impacts to floodplains.

4.7.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to water resources.

4.8 Biological Resources

4.8.1 AFFECTED ENVIRONMENT

This section describes existing biological resources at the Preferred Alternative Site. It focuses on plant and animal species or habitat types that are typical or are an important element of the ecosystem, are of special category importance (of special interest due to societal concerns), or are protected under state or Federal law or statute regulatory requirement. Vegetation is discussed first, followed by wildlife, sensitive species, and wetlands. The ROI for biological resources is the land within and adjacent to the Proposed Action project area.

4.8.1.1 Vegetation

With the construction of RRAD, an area that had been under intensive agriculture and silviculture practices was allowed to return to woodland habitat (Tetra Tech 2006). The Preferred Alternative Site consists of a recently cleared forested tract now in early primary successional growth. Surrounding the site is a mixture of loblolly (*Pinus taeda*)-short-leaved pine (*Pinus echinata*) forests and mixed hardwood. Dominant hardwood climax species found in the overstory on RRAD include red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), black hickory (*Carya texana*), southern hackberry (*Celtis* sp.), persimmon (*Diospyros virginiana*), southern red oak (*Quercus falcata*), and post oak (*Quercus stellata*) (Tetra Tech 2006).

Shrub species commonly mixed in the understory and in the open include American beauty berry (*Callicarpa americana*), hawthorne (*Crataegus brainerdii*), sumac (*Rhus* sp.), blackberry (*Rubus* sp.), and huckleberry (*Gaylussacia* sp.) (USACE 1993). Grass species dominate the open meadow-like areas and include longleaf uniola (*Uniola* sp.), purple top (*Tridens flavus*), little bluestem (*Andropogon scoparius*), and broomsedge (*Andropogon virginicus*) (USACE 1993).

4.8.1.2 Wildlife

Land management practices of large stand timber as well as prescribed burning programs have encouraged successional vegetative growth, which provides for adequate forage for wildlife species (Tetra Tech 2006). White-tailed deer (*Odocoileus virginianus*), raccons (*Procyon lotor*), bobcat (*Lynx rufus*), skunk (*Spilogale* sp. or *Mephitis* sp.), and armadillo (*Dasypus novemcinctus*) are common on the installation (USACE 1993) and several of these species have been documented using portions of the Preferred Alternative Site (AGEISS Inc. 2009b). Gray squirrel (*Sciurus carolinensis*) and fox squirrel (*Sciurus niger*) are also common on RRAD and may use portions of the forested areas surrounding the Preferred Alternative Site.

RRAD is located along the Mississippi flyway and provides a temporary residence for migrating waterfowl (USACE 2008). Game species including wild turkey (*Meleagris gallopavo*), mourning dove (*Zenaida macroura*), and bobwhite quail (*Colinus virginianus*) are common throughout the installation and may be attracted to the edge habitat of the Preferred Alternative Site. Birds of prey recorded on the installation may also be attracted to the open area provided by the recent timber clearing as small mammals become more available. These species include the American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*Buteo lineatus*) (Tetra Tech 2002).

Although planning-level surveys documented 33 herpetofauna species on both RRAD and Lone Star Army Ammunition Plant (LSAAP) (Tetra Tech 2002), habitat for most of these species is not provided at the Preferred Alternative Site. The small creek and wetland area on the west border of the site may provide minimal habitat for the box turtle (*Terrapene* sp.).

Invasive fire ant mounds (*Solenopsis invicta*) have been documented at the Preferred Alternative Site (AGEISS Inc. 2009b).

4.8.1.3 Sensitive Species

Under Section 7 of the ESA, the Army is mandated to use its authority to ensure actions are approved, funded, or carried out to protect both flora and fauna that are considered threatened and endangered species or proposed for listing as threatened or endangered species on the RRAD site. In compliance with the ESA, informal consultation has been conducted with the U.S. Fish and Wildlife Service (USFWS). A copy of the consultation letter sent by RRAD to the USFWS, along with copies of scoping letters sent to TCEQ and the Texas Parks and Wildlife Department (TPWD), are included in Appendix A.

The USFWS administers the ESA of 1973 as amended. This law provides Federal protection for species designated as federally endangered or threatened and defines an endangered species as “in danger of extinction throughout all or a significant portion of its range,” and a threatened species as “likely to become an endangered species within the foreseeable future.” Special status species are listed as threatened or endangered, are proposed for listing, or are candidates for listing by the state and/or Federal government.

During installation planning-level surveys the alligator snapping turtle (*Macroclermys temminckii*), a state-listed threatened species, was observed at the installation (Tetra Tech 2002). The only other federally listed species in Bowie County, Texas that may occur at RRAD are the

endangered interior least tern (*Sterna antillarum*) and threatened Louisiana black bear (*Ursus americanus*) (USFWS 2009). Although bald eagles (*Haliaeetus leucocephalus*) have been delisted, the USFWS continues to monitor their recovery progress. The bald eagle is known to winter at Wright Patman Lake which is located about 2 miles south of the installation (USACE 2007). Other state-listed bird species that may migrate through the area include the American peregrine falcon (*Falco peregrinus anatum*) and the arctic peregrine falcon (*Falco peregrinus tundruis*), both delisted from the Federal endangered species list but protected at the state level (TPWD 2009). Additionally, Rafinesque's big-eared bat, (*Corynorhinus rafinesquii*) a state-listed threatened species, has been documented in Bowie County (TPWD 2009) and although the planning-level surveys did not include bats, habitat was observed on the installation (Tetra Tech 2002).

No federally- or state-listed plant species are known to occur on RRAD. One state rare plant identified for Bowie County, Texas is the Arkansas meadow rue (*Thalictrum arkansanum*); however, no evidence of this species has been observed on RRAD (Tetra Tech 2002).

4.8.1.4 Wetlands

Wetlands are classified by the USACE based on three criteria: hydrology, soil type, and vegetation. Specifically, wetlands are defined as those areas that are saturated or inundated by water that is sufficient to support vegetation typically adapted to saturated soils (USACE 1987). Wetlands and other surface water features, which may include intermittent and perennial streams, are generally considered "waters of the United States" by the USACE, and under their definition of "jurisdictional waters/features," are protected under Section 404 of the CWA.

Approximately 2,550 acres of wetlands and deepwater habitats were identified on RRAD during a 1997-1998 wetlands inventory (USFWS 1998). Forested wetlands represent 88 percent of the wetlands with deciduous forested wetlands the most common habitat type. Shrub/emergent and scrub-shrub wetlands make up 6 and 4 percent of the total wetlands, respectively, on RRAD (USFWS 1998). The Preferred Alternative Site naturally drains to a creek along the western boundary of the site. The USFWS inventory identified the creek as well as Palustrine Deciduous Forested Wetlands and possibly Palustrine Emergent Wetlands along the west half and southwest corner of the site (Figure 4-3). The USFWS National Wetlands Inventory does not contain digital information for the area in which the site is found.

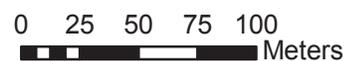
The USFWS report recommended project-specific field delineations be conducted in accordance to USACE protocols, prior to implementing activities that could potentially impact wetlands. A wetlands delineation was conducted April 23, 2009. The Wetlands Investigation Report is provided in Appendix B. One intermittent stream on the western portion of the project area was identified along with several wetland pockets along the stream corridor (USACE 2009). Waters of the U.S. within the project area total 1,425 total linear feet (11,400 square feet) of intermittent stream.



Source: Red River Army Depot Integrated Natural Resources Management Plan.



Approximate Scale



Prepared For:
U.S Army Corps of Engineers, Mobile District

Figure 4-3
Primary Wetlands at the
Preferred Alternative Site



4.8.2 CONSEQUENCES

Potential impacts to biological resources are considered significant if the Proposed Action would:

- Affect a threatened or endangered species;
- Substantially diminish habitat for a plant or animal species;
- Substantially diminish a regionally or locally important plant or animal species;
- Interfere substantially with wildlife movement or reproductive behavior;
- Result in a substantial infusion of exotic plant or animal species; or
- Destroy, lose, or degrade jurisdictional wetlands (as defined by Section 404 of the CWA).

EO 11990, *Protection of Wetlands*, requires Federal agencies to avoid actions, to the extent practicable, which would result in the location of facilities in wetlands.

4.8.2.1 Preferred Alternative

Impacts to biological resources from the Preferred Alternative would not be significant. Minimal short-term impacts to wildlife would result from disturbance from construction of the new facilities. Wildlife currently using the Preferred Alternative Site are likely to be opportunistic species that are highly adaptable. Movement corridors may be temporarily interrupted for these species during construction; however, the species would be able to adjust their movements accordingly and minimize any long-term impacts. The Preferred Alternative would not cause adverse impacts to any federally-listed threatened or endangered species, for no such species are known to occur on the Preferred Alternative Site. Additionally, preferred habitat is not available on the Preferred Alternative Site for either the endangered interior least tern or the threatened Louisiana black bear. Data gaps exist on both the occurrence of the Rafinesque's big-eared bat and availability of viable habitat on RRAD (USACE 2008). Avoidance and conservation of the forested region surrounding the Preferred Alternative Site should prevent any incidental take of the species. Any potential wetland areas and riparian buffer zones in the surrounding forested region should be avoided during site construction to minimize impacts to these resources.

The USFWS and the TPWD have reviewed the proposed project (Appendix A). In an e-mail dated May 8, 2009 (Appendix A), the USFWS concurred with the assessment that federally listed species would not be impacted by the Proposed Action. USFWS assessed that federally listed species would not be impacted on the lack of available habitat for the interior least tern and the close proximity to existing disturbance which is not supportive of the Louisiana black bear. The TPWD suggested in a letter dated May 6, 2009, that the Proposed Action "...should be carefully planned and constructed to avoid and preserve existing native vegetation." TPWD also suggested the use of native vegetation in the landscape design to reduce the need for permanent irrigation.

Maintaining a 12-foot buffer zone on either side of the intermittent stream, would avoid impacting the Waters of the U.S. identified, including wetlands (USACE 2009). However, in a letter dated May 6, 2009, the TPWD stated that to minimize impacts to any wetlands and streams within the project area an "unmaintained woodland buffer area of at least 50-feet wide along streams or drainages should be incorporated into the site plan." The proposed site has been

harvested and based on BMPs from the Integrated Natural Resources Management Plan, a buffer of at least 50 feet has already been preserved around the delineated wetland area and meets requirements for both the state and USACE. Figure 4-4 shows the proposed site plan and wetlands delineation at the Preferred Alternative Site.

4.8.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to biological resources.

4.9 Cultural Resources

4.9.1 AFFECTED ENVIRONMENT

This section describes the existing cultural resource conditions in the area of the Preferred Alternative. The ROI for cultural resources is equivalent to the area of potential impact (APE) of approximately 15 acres which includes the property within the proposed project area that will be affected by the action, either during construction only or permanently. Cultural resources are historic properties as defined by the NHPA, cultural items as defined by NAGPRA, archeological resources as defined by ARPA, sacred sites as defined in EO 13007 to which access is afforded under AIRFA, and collections and associated records as defined in 36 CFR 79.

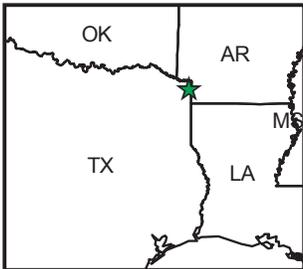
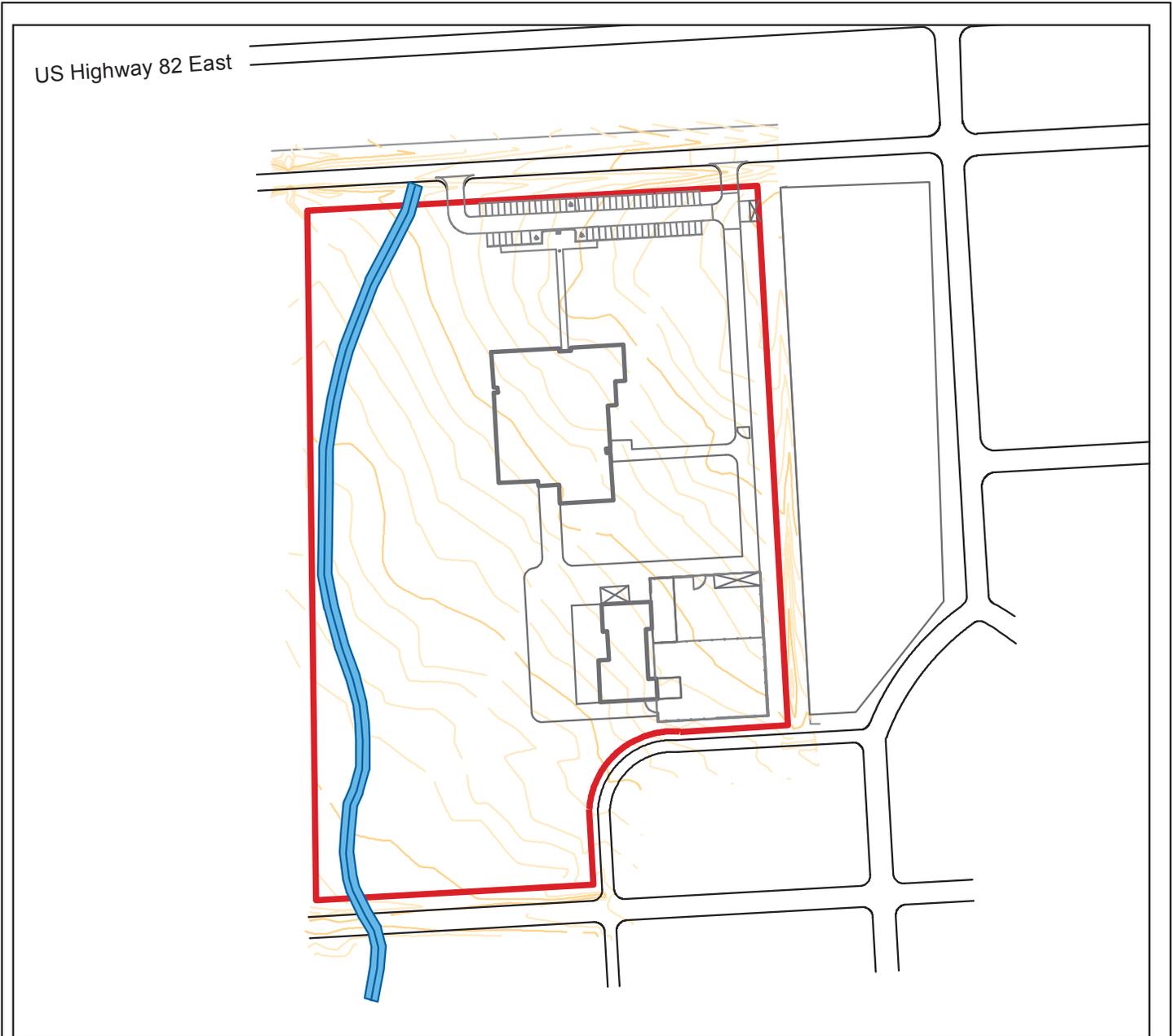
The prehistoric and historic background of the area is summarized first, followed by the status of cultural resource inventories and NHPA Section 106 consultations, and Native American resources.

4.9.1.1 Prehistoric and Historic Background

The project area is in northeastern Texas and contains cultural elements from surrounding states. The last 12,000 years in northeastern Texas have been sub-divided into the following four broad culture-historical periods: Paleoindian (12,000-9,500 B.P.), Archaic (9,500-1,800 B.P.), Woodland (1,800-1,200 B.P.), and Early to Historic Caddoan (1,100-250 B.P.) (New South Associates 2009).

Paleoindian settlement relied upon nomadic hunting of a variety of species including megafauna generally associated with the period. Settlement patterns included small, mobile bands living in a series of temporary camps. Lanceolate and fluted points, including Angostura, Clovis, Folsom, and Plainview are the common artifacts associated with this period, though many are identified as surface finds. The Paleoindian is the least understood period for northeast Texas. Major stream drainages are where evidence of Paleoindian habitation is found, although it is often in disturbed contexts (New South Associates 2009).

The Archaic period is characterized by a population rise, as represented by the increase in sites from the Paleoindian. A shift in subsistence focus following the Pleistocene would also have affected social structures. Resources were exploited on a seasonal cycle, which favored sedentism as opposed to greater mobility. This is represented by the lower quality of lithic raw materials representing local resources. Types of tools increased along with the complexity of social organization. Early and Middle Archaic sites were found along the uplands, while Late Archaic sites focused more along stream valleys. Stemmed projectile points related to the use of



Legend

-  Stream Buffer
-  Unnamed Tributary Big Creek
-  Approximate Preferred Site Boundary
-  Proposed Site Plan
-  Major Topographic Contours
-  Minor Topographic Contours



0 125 250 375 500 Feet

0 25 50 75 100 Meters

Prepared For:
 U.S. Army Corps of Engineers, Mobile District

Figure 4-4
 Proposed Site Plan and Wetlands
 Delineation at the Preferred Alternative Site



the atlatl were common in this period. The broadening of the subsistence base was accompanied by a larger suite of specialized tools (New South Associates 2009).

The Woodland period in northeast Texas is unlike the rest of the state and has more in common with the cultural traditions to the east. It is considered the westernmost extension of the Woodland cultures of the southeastern United States. Generally marked by the appearance of ceramic technology, the Woodland period is characterized by further increases in population, social complexity, and sedentism. An even broader subsistence base and an increased reliance on small game and horticulture were also documented. Sites include both temporary campsites and larger, more permanent villages. Small projectile points are indicative of the introduction of the bow and arrow to the region (New South Associates 2009).

The Caddoan culture is well documented in northeast Texas after about 1,100 B.P. They are a sedentary horticultural group and considered the southwestern extension of the Moundbuilder cultures of the central United States. Caddoan sites include villages, farmsteads, and hamlets. Complex political structures and societal class distinctions are also a hallmark of Caddoan culture. Caddoan mound sites were visited by Hernando de Soto in the early 1540s. The Caddoan culture occupied most of northeast Texas well into the historic period (New South Associates 2009).

The period of European exploration and settlement, and the North American and African-American development of Northeast Texas, is subdivided into five periods (USACE 2008):

- European Exploration and Colonization (1542 – 1803)
- Initial North American Settlement and Growth (1804 – 1860)
- Civil War and Aftermath (1860 – 1870)
- Initial Commercialization (1870 – 1920)
- Depression and Recovery (1920 – Present)

Nearly 200 years after the de Soto expedition of 1542, one of the earliest European outposts in the region was established by Benard de la Harpe in 1719, northeast of RRAD. By the 1820s, homesteaders began moving into the prairie between the Red River and the Sulphur River. By the 1830s, the introduction of commercial cotton agriculture propelled the population boom of Bowie County, Texas. Cotton production dominated the cultivated acreage until as late as 1910, at which time some diversification began in the agricultural industry to include other products such as corn, livestock, dairying, commercial poultry production, orchards, and truck farms.

Transportation improvements that followed the Civil War were also a contributing factor in the growth of Bowie County. Railroads contributed to the growth of communities at whistle stops along their routes, with some whistle stops bordering the acreage currently occupied by RRAD and LSAAP. The African-American community of Piney Grove supported a church and a school in the early 20th century in the LSAAP area and within the present-day footprint of RRAD, Chalybeate School and Shiloh Church and School are known to have existed at the same time. Rock Creek Church and Rock Creek School were just south of the RRAD boundary, also during this period (USACE 2008).

Military History

In June 1941, the War Department designated 40,000 acres west of Texarkana, Texas-Arkansas as the site of a munitions plant and a munitions storage and distribution facility. The storage facility was named Red River Ordnance Depot and was designated as a permanent installation by War Department General Order No. 9 dated August 9, 1941. Initial construction on the Red River Ordnance Depot was completed in April 1942. At about the same time in 1941, the government acquired by outright purchase an additional 6,569.6 hectares (16,233.85 acres) for the location of a second ordnance facility, which is currently LSAAP. Construction on this plant also began in mid-1941, and was completed in summer 1942. Upon completion, the Lone Star Defense Corporation, a subsidiary of B.F. Goodrich, placed the facility into active production. In August 1945, production ceased at LSAAP; in November 1945, the plant was consolidated with the adjacent Red River Ordnance Depot under the name of the Red River Arsenal. In 1948, RRAD was named the distribution depot for the Fourth Army area, which included five states in the South and Southwest. In May 1951, the LSAAP was reactivated, and a contract for facility operation was awarded to Day and Zimmerman, Inc., which has operated the LSAAP facility continuously since that time (USACE 2008).

4.9.1.2 Status of Cultural Resource Inventories and Section 106 Consultations

A Phase I Cultural Resources Survey was conducted at the Preferred Alternative Site which included an archaeological reconnaissance and shovel testing survey. The following information is summarized from the survey (New South Associates 2009).

The entire APE was subjected to an intensive (100 percent) systematic shovel test survey. Background research was conducted at the Texas Archaeological Sites Atlas, the Texas Historical Commission, the Texas Archaeological Research Laboratory, the National Register of Historic Places (NRHP), and the Records Management Office of the Red River Army Depot. Field investigations included shovel testing and pedestrian walkover.

The central 8.5 acres of the APE have been recently logged and exhibit extensive ground disturbance. Forested areas remain intact along the edges of the logged area. The combination of shovel testing and pedestrian walkover identified one archaeological site.

Site 41BW760 was located in the southwest corner of the property. It consists of four historic building foundations located in the southwest corner of the APE. The largest foundation belonged to the Ordnance Unit Training Center base chapel. The other three are small outbuildings of unknown function. All four buildings were constructed in 1943. Their superstructures were removed and relocated in 1967. The chapel itself was recorded in 1998 as an historic structure in its new location. It was recommended as not eligible for inclusion on the NRHP and the building was subsequently destroyed. Six shovel tests were placed within the site boundary but no artifacts were recovered. The site boundary was delineated solely by the extent of the four foundations.

The identification of the chapel was based on a map of the Red River Ordnance Depot produced in 1982 by the International Mapping Company. It labeled the building as number S-1202, which is listed as the "Post Chapel." The construction date is listed as 1943. The three smaller buildings are also listed under this heading, which suggests that they are outbuildings related to

the chapel. The chapel was built according to the standard World War II mobilization plans for such a structure. It was converted into a theatre in 1949 and an evaporative cooler was added in 1953. It was further altered following its relocation in 1967. Based on the previous work on the chapel, the available archival documentation, and the condition of the foundations, Site 41BW760 is not eligible for inclusion on the NRHP under any of the four criteria.

Section 110 of the NHPA requires Federal agencies to locate, inventory, and nominate to the NRHP all resources that are recommended eligible for inclusion on the NRHP. There are no NRHP-eligible or listed historic archaeological properties at the proposed project area.

Section 106 consultation and coordination has been conducted with the State Historic Preservation Office via the Texas Historical Commission. A copy of the letter sent to the Texas Historical Commission is included in Appendix A. The State Historic Preservation Officer issued a determination of No Historic Properties Affected on August 26, 2009. A copy of the determination letter is included in Appendix A.

4.9.1.3 Native American Graves Protection and Repatriation Act

No Native American concerns regarding the Proposed Action have been identified. Notification letters to five federally recognized tribes, the Caddo Indian Tribe, Comanche Indian Tribe of Oklahoma, Kiowa Indian Tribe of Oklahoma, Wichita Tribe, and the Tonkawa Tribe of Indians of Oklahoma, regarding the Proposed Action have been distributed by the Command. Copies of the notification letters are included in Appendix A. Follow-up phone calls were made to the tribes to ensure they received the notification letters, as well as the Phase I Cultural Resources Survey. All tribes received the documents and had no comments or concerns with the project. They noted they would like to be notified in the event any cultural material is uncovered during construction. Records of the phone conversations are included in Appendix A.

4.9.2 CONSEQUENCES

Potential impacts to historic properties and/or archaeological resources are considered significant if the Proposed Action would:

- Physically destroy, damage, or alter all or part of the property;
- Physically destroy, damage, alter or remove items from archaeological contexts without a proper mitigation plan;
- Isolate the property from or alter the character of the property's setting when that character contributes to the property's qualification for the NRHP;
- Introduce visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
- Neglect a property resulting in its deterioration or destruction; or
- Transfer, lease, or sell the property (36 CFR 800.9[b]) without a proper preservation plan.

4.9.2.1 Preferred Alternative

There are no known NRHP-eligible or listed historic archaeological properties at the proposed project area. As noted above, the State Historic Preservation Officer issued a determination of

No Historic Properties Affected on August 26, 2009 (see Appendix A). If, during construction, any potential historic or archaeological resource is uncovered or inadvertent discoveries are made of Native American human remains and associated funerary objects, sacred objects, or objects of cultural patrimony, the Cultural Resources Manager for the 63D RSC and RRAD would be contacted, in accordance with typical standard operating procedure for the accidental discovery of archaeological resources or Native American artifacts.

4.9.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to cultural and archaeological resources.

4.10 Socioeconomics

4.10.1 AFFECTED ENVIRONMENT

This section describes existing socioeconomic conditions for RRAD, including economic development, demographics, housing, quality of life, environmental justice, and protection of children. The ROI for socioeconomic impacts consists of Bowie County, Texas and Miller County, Arkansas. This area comprises the region in which the predominant socioeconomic impacts of the Proposed Action would take place. The geographic extent of the ROI is based on the residential distribution of the installation's military, civilian, and contracting personnel, and the location of businesses that provide goods and services to the installation and its employees.

RRAD is located in the northeastern corner of the state of Texas at the Texas-Arkansas border. Bowie County, Texas occupies 923 square miles, and has a population of 90,928. Miller County, Arkansas is adjacent to Bowie County and covers approximately 637 square miles with a population of just over 42,577 (U.S. Census Bureau 2007). A large number of employees at RRAD reside in Bowie and Miller Counties (USACE 2008). RRAD is located near Texarkana, Texas-Arkansas, which would provide many necessary goods and services for AFRC personnel, including food, gasoline, and miscellaneous supplies. This section describes the existing socioeconomic conditions for Texarkana and Bowie County, Texas; and Texarkana and Miller County, Arkansas.

4.10.1.1 Economic Development

Economic development indicators are presented in Table 4-4, and include total number of individuals in the workforce, unemployment, top three industries and occupations, median household income, per capita income, and cost of living. The top industry in Bowie County; Texarkana, Texas; Texarkana, Arkansas; and Miller County is educational, health, and social services (U.S. Census Bureau 2007). Retail trade was also in the top three industries for all four locations.

Two of the top three occupations in Bowie County; Texarkana, Texas-Arkansas; and Miller County in 2007 included management, professional, and related occupations; and sales and office occupations. Both Texarkana, Texas and Bowie County were similar, with service occupations comprising the third most popular occupation. Texarkana, Arkansas and Miller County's top three occupations also consisted of production, transportation, and material moving occupations.

Table 4-4. Economic Development Indicators.

Location	Total Workforce	Unemployment (%)	Top 3 Industries	Top 3 Occupations	Median Income (household)	Per capita Income	Cost of Living Index (%)
Bowie County	42,411	4.6	Educational services, and health care and social assistance (23.4%); retail trade (12.7%); public administration (10.5%)	Management, professional, and related occupations (28.7%); sales and office occupations (24.5%); service occupations (19.2%)	\$38,932	\$20,777	76.8
Texarkana, Texas	17,114	6.1	Educational services, and health care and social assistance (26.1%); arts, entertainment, and recreation, and accommodation, and food services (13.9%); retail trade (13.5%)	Management, professional, and related occupations (32.7%); Sales and office occupations (23.5%); service occupations (21.7%)	\$36,852	\$22,291	77.9
Texarkana, Arkansas	13,350	4.4	Educational services, and health care and social assistance (21.5%); manufacturing (15.1%); retail trade (11.3%)	Management, professional, and related occupations (30.7%); Sales and office occupations (26.1%); production, transportation, and material moving occupations (15.1%)	\$35,625	\$18,890	80.3
Miller County	19,707	4.3	Educational services, and health care and social assistance (21.7%); manufacturing (13.8%); retail trade (11.6%)	Management, professional, and related occupations (27.8%); sales and office occupations (24.4%); production, transportation, and material moving occupations (17.0%)	\$38,186	\$19,026	80.3

Source: City-Data 2008; U.S. Census Bureau 2007

Unemployment for the year 2007 in the ROI was above the national average for the same year, which was 4.2 percent (U.S. Census Bureau 2007). Unemployment rates ranged from 4.3 percent to 6.1 percent in the ROI.

In 2007, the median income for a household in the ROI ranged from a low of \$35,625 for Texarkana, Arkansas, to a high of \$38,932 for Bowie County (U.S. Census Bureau 2007). Per capita income for the same year ranged from a low of \$18,890 in Texarkana, Arkansas, to a high of \$22,291 in Texarkana, Texas.

Data from 2008 indicate the cost of living within the ROI was low for Bowie County (76.8 percent); Texarkana, Texas (77.9 percent); Texarkana, Arkansas (80.3 percent); and Miller County (80.3 percent), which is between approximately 20 and 23 percent lower than the U.S. average cost of living based on the cost of living composite index (City-Data 2008).

4.10.1.2 Demographics

The U.S. Census (2007) estimated the population of Bowie County, Texas for the years 2005-2007 was 90,928; Texarkana, Texas's population was 35,561; Texarkana, Arkansas's population was 30,163; and Miller County's population was 42,577. Populations of both counties grew slightly from 2000 to 2007 (Table 4-5). State populations increased by greater amounts, with Texas achieving 12.2 percent growth and Arkansas achieving 5.5 percent growth for that period. Texarkana, Arkansas experienced significant growth during the same period (14.0 percent).

Table 4-5. Regional and State Population Trends.

Area	2000	2007	Percent Change 2000-2007
Texas	20,851,820	23,385,340	12.2
Bowie County	89,306	90,928	1.8
Texarkana, Texas	34,782	35,561	2.2
Arkansas	2,673,400	2,805,353	4.9
Texarkana, Arkansas	26,448	30,163	14.0
Miller County	40,443	42,577	5.5

Source: U.S. Census Bureau 2000; U.S. Census Bureau 2007

The racial makeup of Bowie County was 71.8 percent White, 24.4 percent Black/African American, and 0.6 percent American Indian and Alaska Native, with other races comprising the remainder of the population (U.S. Census Bureau 2007). Miller County had a similar distribution of racial backgrounds (73.3 percent White, 24.5 percent Black or African American, and 1.2 percent American Indian and Alaska Native). Texarkana, Texas had a racial background comprised of 60.2 percent White, 36.0 percent Black or African American, and 0.6 percent American Indian and Alaska Native. Texarkana, Arkansas was 64.6 percent White, 33.0 percent Black or African American, and 1.1 percent American Indian and Alaska Native.

The percentage of high school graduates was similar for Bowie County, Texas (83.1 percent); Texarkana, Texas (82.4 percent); Texarkana, Arkansas (80.1 percent); and Miller County, Arkansas (79.9 percent) (U.S. Census Bureau 2007). The percent of people with a Bachelor's Degree or higher varied more widely. Texarkana, Texas had the highest percentage of people with a Bachelor's Degree or higher (21.1 percent), followed by Texarkana, Arkansas (17.3 percent), Bowie County (16.7 percent), and Miller County (14.9 percent) (U.S. Census Bureau 2007).

4.10.1.3 Housing

Owner occupancy rates in both Bowie and Miller Counties are comparable to state rates (U.S. Census Bureau 2007). Median home values for Bowie County and Miller County were lower than state home values. Table 4-6 presents selected housing characteristics.

Table 4-6. Select Housing Characteristics for the Region of Influence.

Area	Housing Units Available	Occupied	Owner-Occupied (%)	Median Value	Median Home Mortgage	Renter-Occupied (%)	Median Contract Rent
Texas	9,224,352	8,095,025	65.2	\$113,800	\$1,329	34.8	\$725
Bowie County	38,237	34,064	66.9	\$77,500	\$958	33.1	\$601
Texarkana, Texas	15,763	14,102	54.7	\$82,900	\$1,031	45.3	\$620
Arkansas	1,269,804	1,096,622	68.0	\$93,700	\$916	32.0	\$578
Miller County	18,948	16,533	65.0	\$78,400	\$822	35.0	\$556
Texarkana, Arkansas	13,666	11,933	57.0	\$80,700	\$886	43.0	\$563

4.10.1.4 Quality of Life

Quality of life is discussed in terms of public safety and medical services, schools, and recreation.

Public safety and medical services. RRAD provides fire protection and medical services and has an agreement with surrounding communities to provide or receive emergency services as needed (USACE 2008). Bowie County has 10 fire departments, seven of which are staffed by volunteer firefighters (Fire Departments Net 2009a). The Hooks Volunteer Fire Department is staffed by 27 volunteer firefighters. Texarkana has three fire departments, which include Liberty-Elyau Volunteer Fire Department (45 volunteer firefighters at two stations), Pleasant Grove Volunteer Fire Department (21 volunteer firefighters at one station), and Texarkana Fire Department (78 career firefighters at five stations). Miller County has three fire departments, including Miller County Volunteer Fire Department (12 volunteer firefighters at two stations), Pleasant Hill Fire Department (12 volunteers at one station), and Texarkana Fire Department (57 career firefighters at five stations) (Fire Departments Net 2009b).

RRAD has a health clinic operated by the U.S. Army that provides occupational health services to RRAD military personnel (USACE 2008). The Texarkana area serves a regional population of more than 400,000 with a variety of medical services, including two acute care hospitals, Christus St. Michael and Wadley Regional Medical Center, with

a 675-bed capacity (Texarkana Chamber of Commerce 2009b). Services provided in addition to customary medical services include open-heart surgery, hemodialysis, laser surgery, rehabilitation, radiation therapy, lipotripsy, and a mobile intensive-care hospital.

RRAD maintains its own police force. The surrounding communities provide their own law enforcement and can supplement RRAD's law enforcement needs if necessary. Texarkana, Texas has a Police Department that employs 98 officers and consists of Uniform Services Division, Investigative Services Division, Support Services Division, and Administrative Services Division (Texarkana Texas Police Department 2009). Texarkana, Arkansas has its own Police Department with 80 to 90 patrol officers (Foster 2009) and offers similar services as the Texarkana, Texas Police Department. Surrounding law enforcement agencies include the Bowie County Sheriff's Department, New Boston Police Department, Hooks Police Department, Texas Department of Public Safety, Military Criminal Investigation Division at Fort Sill, and the Federal Bureau of Investigation.

Schools. There are no educational facilities at RRAD. Bowie County's 13 public school districts have approximately 15 elementary, 10 middle/intermediate/junior high, and eight public high schools (Public Schools Report 2007) and serve the children of RRAD employees. Nearly 17,400 students were enrolled in schools within Bowie County between 2007 and 2008 (Texas Education Agency 2008).

Recreation. Recreational activities offered at RRAD are available to current and former military, RRAD government employees, and contractor employees and their families. RRAD offers recreational cabin and cottage rentals, outdoor equipment rentals, and a fitness center. Hunting clubs and law enforcement agencies have access to two active RRAD firing ranges. The surrounding area also provides recreational opportunities, including over 25 public parks, golf courses, public tennis courts, and public swimming pools. Wright Patman Lake and Lake Millwood are 9 and 28 miles from Texarkana, respectively. There are nine parks around Wright Patman Lake that provide opportunities for boating, swimming and fishing, camping, picnicking, hiking, equestrian trails, and other activities. Lake Millwood in Arkansas offers 15 recreational parks around the lake, fishing, picnicking, boating, and swimming. Caney Creek Reservoir, located on RRAD, has been managed for recreational fishing since 1978.

4.10.1.5 Environmental Justice

Environmental justice is the fair treatment for people of all races, cultures, and incomes, regarding the development and implementation (or lack thereof) of environmental laws, regulations, and policies. EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, directs Federal agencies to address environmental and human health conditions in minority and low-income communities. A memorandum from former President Clinton concerning EO 12898 stated that Federal agencies would collect and analyze information concerning a project's impacts on minorities and low-income groups when required by NEPA. If such investigations find that minority and/or low-income groups experience a disproportionate adverse impact, then avoidance or mitigation measures are necessary. Table 4-7 shows information about

minority and low-income populations in the ROI for the years 2005-2007. The table provides the percent of minorities, percent of families living below the poverty level, percent of the population living below the poverty level, as well as what percentage of the people living below the poverty level are under age 18 and over age 65.

Table 4-7. Minority and Low-Income Populations in the Region of Influence.

Location	% Minority (2007)	% Below Poverty Level			
		% Families (2007)	% Population	% in Poverty Under Age 18	% in Poverty Over Age 65
Bowie County	28.2	13.8	16.8	22.3	12.1
Texarkana, Texas	39.8	16.1	21.0	25.0	12.7
Texarkana, Arkansas	35.4	15.0	19.0	28.6	14.4
Miller County	26.7	12.9	16.6	24.6	15.1
National Average	24.3	9.8	13.3	18.3	9.9

Source: U.S. Census Bureau 2007

As shown in Table 4-7, the percent of minorities in the ROI ranges from 26.7 to 39.8 (U.S. Census Bureau 2007). Both Bowie and Miller Counties had minority populations near the national average for the same year (24.3 percent). Both cities of Texarkana had minority populations significantly higher than the counties within the ROI and the national average for the same year (Texarkana, Texas at 39.8 percent and Texarkana, Arkansas at 35.4 percent). The percent of individuals below poverty level for Bowie County (16.8 percent) and Miller County (16.6 percent) were slightly higher than the national average for 2007 (13.3 percent). Both Texarkana, Texas and Texarkana, Arkansas had significantly higher percentages of individuals below poverty level (21.0 percent and 19.0 percent, respectively); however, because the county populations within the ROI are near the national average and incorporate individuals from the two cities that are below poverty level, there does not appear to be a disproportionately high percentage of individuals below poverty level in the region. In 2007, the poverty guideline for a family of four was an annual income of \$20,650 in the 48 contiguous states and Washington, D.C.; and for a family of three, it was \$17,170 (U.S. Department of Health and Human Services 2007). Table 4-7 also shows the percent of families, individuals under age 18, and individuals over age 18 below poverty level, which are similarly distributed.

4.10.1.6 Protection of Children

EO 13045, *Protection of Children from Environmental Health and Safety Risks*, requires Federal agencies, to the extent permitted by law and mission, to identify and assess environmental health and safety risks that might disproportionately affect children. There are no land uses or activities in the vicinity of the proposed AFRC that include the presence of children (e.g. schools, daycares, sports parks, etc.).

4.10.2 CONSEQUENCES

Potential socioeconomic impacts are considered significant if the Proposed Action would cause:

- Substantial gains or losses in population and/or employment; or
- Disequilibrium in the housing market, such as severe housing shortages or surpluses, resulting in substantial property value changes.

Potential environmental justice impacts are considered significant if the Proposed Action would cause disproportionate impacts on low-income and/or minority populations.

Potential impacts to protection of children are considered significant if the Proposed Action would cause disproportionate impacts on children.

4.10.2.1 Preferred Alternative

Potential socioeconomic impacts from the Preferred Alternative would not be significant. The economic effects of the construction phase of the Proposed Action were estimated using the Economic Impact Forecast System (EIFS) model, a computer-based economic tool that calculates multipliers to estimate the direct and indirect effects resulting from a given action (Appendix C). Changes in spending and employment associated with construction represent direct effects of the action. Based on the input data and calculated multipliers, the model estimates changes in sales volume, income, employment, and population in the ROI, accounting for the direct and indirect effects of the action. For purposes of this analysis, a change is considered significant if it falls outside the historical range of ROI economic variation. To determine the historical range of economic variation, the EIFS model calculates a rational threshold value (RTV) profile for the ROI. This analytical process uses historical data for the ROI and calculates fluctuations in sales volume, income, employment, and population patterns. Historical extremes for the ROI become the thresholds of significance (i.e., the RTVs) for social and economic change. If the estimated effect of an action falls above the positive RTV or below the negative RTV, the effect is considered to be significant. For this analysis, the ROI is Bowie County, Texas and Miller County, Arkansas and the change in local expenditures refers to the estimated construction spending of \$13,250,753 (URS 2009b). It is expected that personnel will relocate from the existing centers located on RRAD and in Texarkana, Texas, within the ROI.

Based on the EIFS model, the Proposed Action would generate about 81 direct and 148 indirect jobs in the economic ROI during construction activities. This increase in employment would represent a 0.35 percent increase in the region's employment levels and would fall short of the positive RTV of 3.22 percent to make any significant positive difference. It should be noted that the increased employment and any other economic benefits associated with construction would only be short term and would be spread out over the lifespan of the project construction. The Proposed Action would also generate positive changes in the other economic indicators estimated by the EIFS model, including a 1.26 percent increase in sales volume, and a 0.32 percent increase in regional personal income. However, these increases do not exceed the positive RTVs for their respective

categories, and are not considered significant. Appendix C contains the EIFS model output for the proposed BRAC actions at RRAD.

Because incoming personnel under the Proposed Action would be coming only for weekend training, there would be no influx of personnel on a permanent basis into the ROI. The AFRC would serve about 359 personnel on a rotating basis, mostly on weekends, with a maximum per weekend of 73. The facility would employ approximately 14 permanent, full-time personnel. No significant economic impact in the ROI would be expected during the operations phase of the Proposed Action. The new facility would realign Army Reserve and TXARNG units, resulting from the BRAC 05 closure of the Watts-Guillot USARC, Texarkana, Texas, and realignment with the proposed RRAD USARC, Hooks, Texas.

There would be no environmental justice impacts, as impacts from the Proposed Action identified in this EA would not be localized or placed primarily on minority and/or low-income populations. Regional construction businesses would likely be used for the construction of proposed buildings. Hiring regional businesses that may employ minority and low-income employees would provide jobs for such workers within the region. This would constitute a minor, short-term positive impact to minority and low-income populations. However, the extent of this benefit would be dependent upon the degree to which minority or low-income persons are employed in these activities.

There are no schools, parks, or recreational areas in the vicinity of proposed location. There are also no residences near the proposed location. In the current setting, there would be no environmental health and safety risks that might disproportionately affect children, because children would be restricted from the areas proposed for construction and operation of the AFRC.

4.10.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to socioeconomics.

4.11 Transportation

4.11.1 AFFECTED ENVIRONMENT

This section describes the existing transportation conditions at and surrounding the Preferred Alternative Site. Roadways and traffic are discussed first, followed by public transportation.

4.11.1.1 Roadways and Traffic

The Preferred Alternative Site is located on RRAD on the northern depot boundary approximately 16 miles west of Texarkana, Texas-Arkansas and approximately 2 miles east of New Boston, Texas. North Boundary Patrol Road runs east to west, with U.S. Highway 82 and I-30 running approximately parallel and immediately north of the Preferred Alternative Site.

Although the proposed AFRC would be located on RRAD, a controlled access facility, the USAR intends to fence the property in order to isolate the proposed AFRC from RRAD and allow AFRC access directly from U.S. Highway 82 rather than through RRAD. Access from I-30 to U.S. Highway 82 and the proposed new entrance to the Preferred Alternative Site is via I-30 exit 206.

U.S. Highway 82 runs east to west between New Boston and Texarkana, Texas-Arkansas providing access west to Amarillo, Texas and east to Montgomery, Alabama. I-30 is part of the Interstate System providing access west to Dallas/Fort Worth and east to Texarkana, Texas-Arkansas and Little Rock, Arkansas (USACE 2008).

The Texas Department of Transportation (TxDOT) Statewide Planning Map indicates the 2007 annual average daily traffic (AADT) count along U.S. Highway 82 in the immediate vicinity of the Preferred Alternative Site was approximately 4,100, and for I-30 in the vicinity of exit 206, the AADT count was approximately 25,000 (TxDOT 2009a).

The transportation network in the area is under expansion and upgrade. TxDOT lists a \$153.5 million project for Bowie Counties' I-30 corridor and frontage roads from Nash, Texas to Texarkana, Texas (TxDOT 2009b). The 4-year project began in October 2006 and includes reconstruction of the U.S. Highway 59 interchange, reconstruction and additions to bridges, conversion of frontage roads to one-way, and relocation of on and off ramps for more efficient traffic patterns (TxDOT 2009b).

4.11.1.2 Public Transportation

Public transportation in the vicinity of Texarkana, Texas-Arkansas includes several local taxi companies. There is no dial-a-ride service available in the vicinity of the Preferred Alternative Site. Passenger rail service is available to Texarkana, Arkansas via Amtrak. Regional air service is available at Texarkana Regional Airport with three daily departures and arrivals to Dallas-Ft. Worth International Airport (Texarkana Regional Airport 2009). There is no active use of airspace in the vicinity of the Preferred Alternative Site (USACE 2008).

Commercial rail service is available to the northern half of RRAD and is provided by Texas North Eastern Railroad Service and Cotton Belt Route Railroad (Union Pacific subsidiary). Texas North Eastern Railroad leases Union Pacific rail spurs to provide access to RRAD from the north, with service between Texarkana and Annona, Texas (USACE 2008).

4.11.2 CONSEQUENCES

Potential impacts to transportation are evaluated with respect to the potential for the Proposed Action to:

- Disrupt or improve current transportation patterns and systems;
- Deteriorate or improve existing levels of service; and
- Change existing levels of safety.

4.11.2.1 Preferred Alternative

Impacts to transportation from the Preferred Alternative would not be significant. Limited short-term impacts associated with construction of the proposed new U.S. Highway 82 access point and construction of the proposed AFRC would be likely due to limited lane closures and increased construction vehicle traffic on U.S. Highway 82. Potential long-term impacts associated with operation of the proposed AFRC would include increased vehicular traffic on U.S. Highway 82. However, this increase in vehicular traffic would be limited to weekends when local traffic is less than normal weekday averages. Even on maximum use weekends, 59 POVs compared to an AADT count of 4,100 represents an increase of less than 2 percent. Military vehicles traveling off site would cause only a minimal temporary disturbance to the local traffic flow when traveling in convoy.

4.11.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to transportation.

4.12 Utilities

4.12.1 AFFECTED ENVIRONMENT

This section describes existing utilities at the Preferred Alternative Site. In general, the utility systems are classified as distribution and collection systems including water, sanitary sewer, storm drainage, electrical, natural gas, and industrial wastewater. Communication systems and solid waste disposal are also discussed in this section.

As a result of implementing BRAC 95 recommendations, ownership of RRAD water production/distribution, sanitary sewer collection and treatment, and industrial wastewater collection and treatment systems was transferred to RRA. Currently, URS Corporation, an engineering and facilities management contractor, operates the RRA-owned water, sanitary sewer, and industrial wastewater utility systems (USACE 2008).

4.12.1.1 Potable Water Supply

Potable water can be defined as water fit for drinking, being free from contamination, and not containing a sufficient quantity of saline material to be regarded as a mineral water. Potable water in the immediate area of the Preferred Alternative Site is supplied by the RRA water treatment plant and distribution system. Water from Caney Creek Reservoir undergoes conventional treatment prior to distribution to RRAD, including underground clear wells with combined storage capacity of 767,000 gallons. The current existing water supply capacity is approximately 1 million gallons per day (MGD). Although considered unreliable, Elliott Creek Reservoir provides an alternate water source with a capacity of 1.3 MGD (USACE 2008).

The RRA water distribution system consists of approximately 41 miles of transmission lines as large as 16 inches in diameter, laterals, and service lines. Built in the 1940s, the distribution system piping consists of mainly cast iron with lead joints. In addition to the underground clear well storage, the RRA system includes one elevated storage tank (500,000-gallon) and one ground-level storage tank (1,000,000-gallon) (USACE 2008).

Currently a 2-inch water line runs along the south ditch of North Boundary Patrol Road immediately north of the Preferred Alternative Site. A 6-inch water line also runs along the south ditch of North Boundary Patrol Road, and terminates at a fire hydrant at the northeast corner of the Preferred Alternative Site. RRRRA plans include constructing a 10-inch water line from the east to terminate at the intersection of North Boundary Patrol Road and First Street, some 1,600 feet to the east of the northeast corner of the Preferred Alternative Site (URS 2009a).

4.12.1.2 Wastewater System

A wastewater collection system consisting of gravity lines and lift stations conveys sanitary wastewater via approximately 9.5 miles of sewer lines to a RRRRA-owned wastewater treatment system located on LSAAP immediately east of RRAD. The LSAAP conventional sanitary wastewater treatment system is a single treatment train consisting of a primary clarifier, trickling filter, secondary clarifier, and a chlorine contact chamber. Average daily design capacity is 1.5 MGD; however, the plant is permitted for peak flows up to 3 MGD. Treated water is discharged to East Fork Elliott Creek which flows into Wright Patman Lake (USACE 2008).

In many areas of RRAD and LSAAP lateral sewer lines consist of old clay tile in poor condition. In some areas of the collection system, sanitary sewer and storm sewer lines are combined. As a result of stormwater inflow and groundwater infiltration to the wastewater collection system no appreciable sanitary sewer wastewater treatment system capacity remains (USACE 2008).

4.12.1.3 Stormwater System

A stormwater system collects and conveys runoff to surface water features. Drainage ditches are found along the roads in the Preferred Alternative Site, providing stormwater collection and drainage. As a tenant of RRAD the Army will be required to follow the existing RRAD TCEQ Industrial Storm Water Multi-Sector General Permit which requires a SWPPP. Likewise, as a tenant of RRAD the Army will be required to follow the existing RRAD SWPPP.

4.12.1.4 Energy Sources

As a result of implementation of the BRAC 95 recommendations, ownership of the RRAD electric utility system was transferred to RRRRA. The 20 kilovolt-amp (kVA) (25,000 kVA peak) system consists of a 12.47 kilovolt electricity distribution system operated by Southwestern Electric Power Company (SWEPCO) and consisting of approximately 138 miles of overhead lines, 44.5 miles of underground lines, substations, transformers, and exterior lighting (USACE 2008).

An electrical connection is available approximately 300 feet east of the Preferred Alternative Site on the east side of Entrance Road, at approximately the midpoint between North Boundary Patrol Road and Officers Drive. This existing electrical service is at the end of a circuit and is a small conductor (URS 2009a). SWEPCO has no known capacity limits for providing electricity to the area of the Preferred Alternative Site (USACE 2008).

Natural gas is provided by Centerpoint Energy through a gas transmission pipeline available at the Preferred Alternative Site through a 4-inch line located in the south ditch of North Boundary Patrol Road (URS 2009a). A majority of the transmission system was upgraded in 1988 to polyethylene line and is in good condition. Propane and fuel oil are available from local distributors as well (USACE 2008).

4.12.1.5 Communication

One central telecommunications switching unit exists on RRAD, from which trunk lines extend (USACE 2008) to provide official governmental communications service to official government offices on RRAD (Cardwell 2009).

Telephone service from Windstream is available from a node approximately 300 feet east of the Preferred Alternative Site, specifically, on the east side of Entrance Road at approximately the midpoint between North Boundary Patrol Road and Officers Drive. The connection can utilize existing cable pair telephone lines leased from RRAD.

4.12.1.6 Solid Waste

Solid waste collection and disposal service for the Proposed Alternative Site is provided by Western Waste of Texas, LLC (Western Waste) (Ramsauer 2009b) doing business as New Boston Landfill owned by Waste Management of Texas (Waste Management of Texas 2008). New Boston Landfill is located west of New Boston, Texas approximately 5 miles west of the Preferred Alternative Site. Services provided by the New Boston Landfill include collection and disposal of nonhazardous waste for the Preferred Alternative Site. The New Boston Landfill services the communities of Bowie, Cass, and Red River Counties in Texas, and Miller County in Arkansas. As of March 2008, Waste Management of Texas estimated its remaining disposal capacity following expansion would increase to approximately 4.35 million cubic yards of waste and daily cover, with a projected average of approximately 535 tons per day of incoming waste. Calculations indicate that the current site will reach approximate capacity of 2,618,700 tons in approximately 2014 (Waste Management of Texas 2008).

Recycling services are offered in the area of the Preferred Alternative Site by Tri-State Iron and Metal Company located in Texarkana, Texas approximately 20 miles to the east.

4.12.2 CONSEQUENCES

Impacts on utilities are considered in terms of increases in demands on systems and the ability of existing systems to meet those demands. Potential impacts to the environment could occur if the existing systems are insufficient to handle the increased demands requiring construction and operation of a new system. Utility demands include both construction and operations usage. Utility demands during the operations of the Proposed Action are based on the facility square footage and personnel requirements. Individual segments that comprise utilities are discussed below.

Potential impacts to the potable water system are considered significant if the Proposed Action would:

- Reduce potable water availability;
- Disrupt potable water distribution systems;
- Change water demands that affect regional potable supplies; or
- Generate contaminants that cause negative impacts on water quality.

Potential impacts to the wastewater system are considered significant if the Proposed Action would:

- Cause additional inflow and infiltration and increased loads on the wastewater treatment that cannot be adequately treated; or
- Change wastewater composition that would alter wastewater treatment processes or consistently cause upsets of the wastewater treatment system.

Potential impacts to stormwater conveyance systems are considered significant if the Proposed Action would:

- Cause flow obstructions and increases to the stormwater drainage system;
- Accelerate deterioration of the stormwater drainage system; or
- Cause long-term interruptions of stormwater drainage system components.

Potential impacts to the electrical systems are considered significant if the Proposed Action would:

- Change regional electricity demands requiring major new components such as transmission lines, transformers, and substations; or
- Cause long-term disruptions in available electrical services.

Potential impacts to liquid fuel systems are considered significant if the Proposed Action would:

- Cause unsafe, inadequate, or noncompliant temporary or long-term storage or distribution systems; or
- Cause unreliable distribution of liquid fuels that cannot meet the mission and support requirements.

Potential impacts to solid waste are considered significant if the Proposed Action would increase solid waste such that it overwhelms local landfills.

4.12.2.1 Preferred Alternative

Impacts to utilities from the Preferred Alternative would not be significant. An extension of available utilities to the proposed AFRC would be necessary.

There would be no significant impact to potable water resources as the RRA distribution system capacity is sufficient to meet estimated demands of the proposed

AFRC. Potable water would be supplied to the proposed AFRC via an extension of the proposed 10-inch water supply line which RRA plans to construct. Determination of domestic supply and fire protection requirements for the proposed AFRC is necessary to adequately size the proposed water supply line extension.

Impacts to the wastewater treatment system would not be significant. The RRA wastewater treatment system has little remaining capacity. However, the connection of the proposed AFRC to the existing system would not increase system demands because the TXARNG reservists are relocating to the proposed AFRC from their current drill facility located on RRAD and connected to the same RRA wastewater collection line. Thus, there would be no net increase of wastewater to the system. Further, USAR units realigning to the proposed AFRC would include only 14 full-time personnel and a maximum drill strength of only 73 reservists present only on weekends when system demand is likely to be at its lowest. Wastewater from the proposed AFRC would likely be gravity fed to the proposed gravity sewer line to be constructed along Bowie Avenue to the south. If the proposed gravity sewer line is not installed, an on-site lift station and force main would need to be constructed to convey wastewater to the existing wastewater collection system.

Impacts from stormwater generated from the Preferred Alternative would be minimal. Stormwater discharges from the proposed AFRC would be managed in accordance with the existing RRAD SWPPP. Stormwater management would be included in the design of the proposed AFRC and the appropriate permits would be obtained as described in Section 4.7.2.1. Estimated stormwater quantity and quality and existing site conditions will guide selection and implementation of BMPs. Runoff from the proposed AFRC buildings as well as the POV parking lot and connecting roads would be collected by a storm drain system. Stormwater design would include sheet drainage where possible, and runoff would be conveyed via open grass-lined swales and culverts to treatment and eventual discharge off site. Additional pretreatment devices (e.g. oil/water separator) would be included in the MEP area storm drain design system to remove hydrocarbons, oils and greases, and other toxins prior to treatment and discharge off site. Storm drain structures and piping would be appropriately designed to handle flows associated with a 10-year storm.

The Preferred Alternative would have no impact to the existing electric transmission system as system capacity is sufficient to meet proposed AFRC requirements. Existing electrical conductor lines will have to be evaluated to determine if conductor size is sufficient to meet estimated requirements of the proposed AFRC. At a minimum, existing electrical service would have to be extended approximately 500 feet to the proposed AFRC. If it is determined the existing electrical conductor is inadequate to meet estimated demands, an upgrade to the conductor would be necessary, with extension to the proposed AFRC. All facilities would be designed to meet the Leadership in Energy and Environmental Design (LEED) Silver design standards in accordance with the Army sustainability policies. The Army's decision to meet LEED Silver design standards will provide a more sustainable facility and will serve as a model for other new construction projects in the area that may be inspired to consider "green" building features.

The Preferred Alternative would have no impact to the existing natural gas distribution system as capacity is expected to be sufficient to meet proposed AFRC requirements. Natural gas service would have to be extended from the south ditch of North Boundary Patrol Road to the proposed AFRC.

The Preferred Alternative would have no significant impact to existing communication service to official governmental offices. At present, the closest fiber optic cable access point is located approximately 0.5 mile east of the Preferred Alternative Site at the intersection of Bowie Avenue and 1st Street. Future expansion of the fiber optic network to an access point closer to the Preferred Alternative Site is planned, to offer service to a new truck gate entrance immediately east of the Preferred Alternative Site.

Impacts to utilities from the Preferred Alternative would not be significant; however, extension would be required and upgrade may be needed.

4.12.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to utility systems.

4.13 Hazardous and Toxic Substances

4.13.1 AFFECTED ENVIRONMENT

This section describes the existing conditions of hazardous and toxic substances at the Preferred Alternative Site. Management of hazardous materials and hazardous wastes are discussed also. The ROI is the land within and immediately adjacent to the Proposed Action project areas.

4.13.1.1 Hazardous Materials

Hazardous materials are those useable corrosive, toxic, flammable, and reactive materials that, when spilled or released, are dangerous to public health or the environment. Hazardous materials are required to be handled, managed, treated, and stored properly by trained personnel under the following regulations: Department of Transportation Hazardous Materials, 49 CFR 172.101; EPA, 40 CFR 260 et seq.; and Occupational Safety and Health Administration Hazardous Communication, 29 CFR 1900.1200 and 29 CFR 1926.59. Hazardous waste is managed on RRAD in accordance with Texas Natural Resource Conservation Commission Permit No. HW-50178-00, for Industrial Solid Waste Management dated June 11, 2001.

The Preferred Alternative Site is undeveloped; no records exist that indicate hazardous materials were ever stored or used at the site (Ramsauer 2009a).

4.13.1.2 Hazardous Waste Disposal

Hazardous wastes are generated when substances, usually originating as hazardous materials, are disposed of and are no longer useable or recyclable and exhibit hazardous characteristics as defined by the EPA. RRAD hazardous waste management includes collecting and accumulating wastes at RRAD facilities for bulk disposal by a licensed contractor. RRAD hazardous wastes are accumulated and stored at container storage

areas (Buildings 293, 346, and 479), and the open burn, open detonation area. The RRAD EPA Facility ID Number is TX3213820738 (RRAD 2009). Collected waste oil is accumulated and disposed of on RRAD by fuel blending.

Areas of environmental contamination on RRAD in the vicinity of the Preferred Alternative Site include a closed hazardous waste landfill located approximately 0.5 mile to the west, a former incinerator site remediated by dig and haul located approximately 0.25 mile to the east, and a closed Woodyard municipal solid waste landfill located approximately 0.5 mile to the east/southeast. These sites have been investigated under the Defense Environmental Restoration Program (AGEISS Inc 2009a). An environmental condition of property report was not completed for the Preferred Alternative Site.

4.13.2 CONSEQUENCES

Potential impacts to hazardous materials management are considered significant if the Proposed Action would:

- Result in noncompliance with applicable Federal and state regulations; or
- Increase the amounts generated or procured beyond current permitted capacities or management capabilities.

4.13.2.1 Preferred Alternative

Impacts to hazardous and toxic substances from the Preferred Alternative would not be significant. Construction activities would pose minimal adverse impacts due to the potential for spills and leaks from construction equipment. Potential adverse impacts associated with construction would be mitigated by contractor spill management plans and response equipment.

As a tenant on RRAD, the USAR would be required to comply with the existing RRAD ISO 14,001 Environmental Management System. The proposed AFRC would consist primarily of administrative and office areas and an associated OMS with maintenance administrative support, service bays, and controlled waste storage area. Use and storage of hazardous materials for routine facilities maintenance would be minimal and would consist of cleaning products, paints, adhesives, and military vehicle maintenance fluids. Use and storage of hazardous materials for routine military vehicle maintenance would be minimal and would consist of military vehicle maintenance liquids (e.g. motor oil, transmission fluid, brake fluid, hydraulic oil, general purpose grease, gasoline, diesel fuel, kerosene, and engine coolant) as well as acid for lead-acid batteries and cooling system refrigerant. General purpose detergents would be used in wash racks. Handling and storage of any hazardous materials would follow applicable regulations and label precautions. Facility plans are yet to be finalized, but are anticipated to include floor drains for the OMS maintenance bays, that would convey flow through oil/water separators (OWS). The tandem vehicle wash racks would likely also flow through an OWS. An emergency standby generator and associated fuel source (diesel or liquid propane) supply are expected to be used to ensure continued operation of the proposed AFRC while operating on emergency power.

Minor amounts of hazardous wastes would be generated and would be temporarily stored on site. RRAD operates a hazardous waste collection program which would provide collection services to the proposed AFRC as a tenant. All hazardous waste management and disposal would be performed in accordance with the RRAD management plans.

The Preferred Alternative would likely result in negligible short- and long-term adverse impacts, based on the potential for small spills and the overall use of hazardous materials and disposal of hazardous waste from the proposed AFRC and associated OMS. The 63D RSC would follow the existing RRAD Spill Prevention Control and Countermeasures Plan as well as its sister document the Installation Spill Contingency Plan to reduce the potential impacts associated with hazardous materials resulting from construction and operation of the proposed AFRC.

4.13.2.2 No Action Alternative

Under the No Action Alternative, no impacts would occur to hazardous and toxic substances.

4.14 Cumulative Impacts

Cumulative impacts are those environmental impacts that result from the incremental impacts of other past, present, or reasonably foreseeable future actions when combined with the Proposed Action. CEQ regulations stipulate that the cumulative impacts analysis within an EA consider the potential environmental impacts resulting from the “incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions” (40 CFR 1508.7). Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies (Federal, state, and local) or individuals.

The scope of the cumulative impact analysis involves evaluating impacts to environmental resources by geographic extent of the impacts and the time frame in which the impacts are expected to occur. Past, present, and reasonably foreseeable actions are identified first, followed by the cumulative impacts that could result from these actions when combined with the Proposed Action. The ROI for the cumulative impacts analysis includes RRAD and LSAAP and 1 mile surrounding the installations.

4.14.1 PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS

RRAD officially opened in 1941 on a site that historically was composed of ranches and farms used for timber production, farming, and grazing (USACE 2007). Although conversion of large tracts of farmland occurred, Bowie County still has over 1,300 ranches and farms that cover approximately 307,531 acres. The county still maintains its rural characteristics. Present actions include relocation of the recycling center presented in Section 4.2.1.3. The relocation of the recycling center will require moving the Morale, Welfare, and Recreation recycling center to a more appropriate location within the RRAD to enhance operations by alleviating truck traffic congestion within the depot, and

providing adequate staging and warehousing areas. Reasonably foreseeable actions at RRAD are described in the RRAD Real Property Master Plan Digest (Master Plan) developed to provide the framework for sound developmental decisions to meet current and future mission requirements. The Master Plan is intended to guide real property decision-making, including future development of the depot (USACE 2007). The Master Plan recognizes seven mission-oriented facility improvement projects and 10 base operations-oriented projects. Of those projects listed, only the construction of the new truck entrance and roadway is near the Preferred Alternative Site.

The largest proposed development in the ROI is the BRAC 05 recommendations which include the closure of LSAAP and disposal or reuse of excess RRAD-western excess property (RRAD-WEP). The Army evaluated several alternatives for the future outcome of the excess property. The results of the Army's analysis indicate that, with the inclusion of mitigation to address potential impacts to wetlands, the physical and socioeconomic environments at RRAD, LSAAP, and in the ROI would not be significantly affected by realignment and closure actions, nor as a result of reuse. A reuse plan developed by the RRAA, the local redevelopment authority of the excess property, calls for multiple-use redevelopment of the area, including industrial, light industrial, warehouse, office, commercial, and forest management uses (RRAA 2007). Industrial uses could include waste disposal (landfills) and biofuel generation (ethanol plants). The largest single proposed land use on both LSAAP and RRAD-WEP property is forest management. This acreage will be managed in a sustainable manner to create revenue for future infrastructure investment (RRAA 2007). Other regional influences considered in this cumulative impact section include major highway improvements and the development of Bowie County's Industrial Parks.

4.14.2 CUMULATIVE IMPACTS SUMMARY

Environmental impacts for all resources potentially affected by the Proposed Action when combined with the past, present, and reasonably foreseeable projects in the area are summarized and discussed below.

4.14.2.1 Land Use

Although development of the AFRC would be compatible with the future land use plans of RRAD and Bowie County, when combined with other present and future actions, it would cause incremental cumulative long-term adverse impacts from the conversion of the land resources. The conversion would be an irreversible use of the land. The conversion of land would cause minor adverse effects as changes would not occur all at once, and large tracts of timber would be managed and not converted immediately. Although adverse impacts would occur, they are not considered significant.

4.14.2.2 Aesthetics and Visual Resources

Construction of the AFRC would cause incremental impacts to aesthetics and visual resources when combined with the future projects discussed above. Short-term impacts due to construction activities for each of these projects would not necessarily be cumulative because the projects would be taking place in various locations. Long-term

minor cumulative impacts would include the removal of vegetation and creation of buildings, pavement, and appurtenant structures on RRAD and the surrounding area. Consideration of aesthetic resources during construction design would reduce these impacts.

4.14.2.3 Air Quality

If the construction periods overlapped, the Proposed Action would cause short-term incremental impacts to air quality when combined with the construction, demolition, or renovation aspects of the present projects near the proposed AFRC site (recycling center and new truck gate). Construction, renovation, or demolition may cause increased short-term external vehicle emissions from heavy equipment usage and particulate matter (dust) emissions from earthmoving activities and building demolition. These impacts would be temporary and would not be significant. However, as increased activities occur from construction and operation of new facilities, as well as timber harvesting, in the ROI, long-term adverse cumulative impacts can be expected. Additionally, development and growth of the area would result in adverse cumulative impacts of emissions from increased traffic and industrial operations (USACE 2008). These cumulative effects are not expected to rise to the level of significance, given the status of the ROI as an attainment area for air emissions, and given that any new sources will be regulated and permitted by the TCEQ (USACE 2008).

4.14.2.4 Noise

Construction, renovation, or demolition may cause increased short-term noise; however, these impacts would be temporary, and cumulative impacts to noise would not be significant. When combined with future proposed development in the ROI, long-term adverse noise impacts would occur but they would not be significant.

4.14.2.5 Geology and Soils

Cumulative adverse impacts would occur from the combination of the Proposed Action with future actions through soil loss and erosion caused by construction and timber harvesting. With the use of BMPs, the cumulative impacts would not be significant. The Proposed Action would also cause long-term incremental impacts when combined with future projects through the addition of impervious surfaces. However, the contribution to impervious surfaces from the Proposed Action is small and the cumulative impact of reducing precipitation infiltration would not be significant.

4.14.2.6 Water Resources

The Proposed Action would not impact groundwater quality and incremental impacts that would result in the reduction of groundwater recharge via soil infiltration would not be significant. When combined with present and future projects, impacts are expected to be minor, as they would be spread over a substantial land area over many years, and BMPs would be employed during activities that can affect water resources (e.g., timber harvesting and construction).

4.14.2.7 Biological Resources

The Proposed Action would cause short-term incremental impacts to biological resources when combined with the present projects listed in Section 4.14.1 as a result of construction-related soil erosion that could contribute excess sediment to waterways over a short term. These impacts would not be significant with proper best management practices for erosion and sediment control. Long-term adverse cumulative impacts are expected to occur when combined with the future projects from vegetation removal and direct loss of plant and wildlife habitats. Impacts to regional forest resources and associated ecological communities of historical importance (i.e. wetlands) may occur from increased timber harvest and redevelopment in the LSAAP and RRAD-WEP under any of the reuse or transfer options presented (USACE 2008). Conservation of riparian/wetlands habitat and implementation of forest management practices may reduce these impacts (USACE 2008). Although the Preferred Alternative Site does not contain any sensitive species, protection of critical habitat for sensitive species found in Bowie County through conservation of wetlands and forested areas will likely decrease regional impacts to these species.

4.14.2.8 Cultural Resources

The Proposed Action would not impact any NRHP-eligible historical sites or listed historic archaeological properties since none are known to exist at the site. Additionally, no Native American concerns regarding the Proposed Action have been identified. Cumulative impacts to cultural resources from the Proposed Action would not occur when combined with future projects since future construction areas would also likely require cultural resource surveys to identify historical sites prior to construction. In addition, strict adherence to RRAD's standard operating procedure regarding the inadvertent discovery of archaeological resources would minimize the possibility of adverse impacts. Cumulative effects to cultural resources would therefore not be significant.

4.14.2.9 Socioeconomics

If the Proposed Action is implemented, there would be short-term incremental socioeconomic impacts when combined with the present projects listed in Section 4.14.1 due to the increase in the daytime population in the ROI from construction workers. However, this incremental increase would only last for the duration of construction of the Proposed Action. The Proposed Action could result in incremental beneficial impacts to the local economy for the duration of construction because of the expected increase in construction job opportunities and the associated temporary increase in secondary and tertiary services during construction. Depending on the overlap in construction schedules for the Proposed Action and the present and future projects listed in Section 4.14.1, the cumulative beneficial impacts could increase. The Proposed Action would not result in significant, incremental, long-term changes in the number of employees at RRAD; however, when combined with future proposed reuse projects in the ROI, cumulative beneficial impacts would occur from direct jobs and the generation of new income. Cumulative impacts to environmental justice and the protection of children would not occur. The proposed AFRC would require special access using a gate key for authorized

individuals. Furthermore, the Army takes special precautions for the safety of children, including the use of fencing and signage.

4.14.2.10 Transportation

Short-term incremental impacts to transportation would result from short-term increases in vehicular traffic from construction, renovation, and demolition activities of the Proposed Action and future projects. Some beneficial long-term impacts would be expected from decreasing traffic congestion with the construction of the recycling facility, truck entrance gate, and the expansion/upgrade of some of Bowie County's highways. Cumulative impacts to transportation would not be significant.

4.14.2.11 Utilities

Cumulative impacts to solid waste disposal would result from construction, renovation, and demolition projects. Solid waste generated by these projects would be transported to a municipal landfill and would not be expected to cause significant impacts to the landfill. Finally, potential development of the RRAD-WEP would require investment in utility infrastructure to meet the expanding needs (RRRA 2007) in order to minimize the impacts on the current utility demands. Cumulative impacts to utilities are not considered significant.

4.14.2.12 Hazardous and Toxic Substances

The Proposed Action may cause short-term incremental impacts from the use of hazardous and toxic substances during construction and renovation when combined with the future projects; however, cumulative impacts from hazardous and toxic substances would not be significant.

4.15 Mitigation Summary

Mitigation measures are actions required for the specific purpose of reducing the significant environmental impacts of implementing a proposed or alternative action. An EA may specify mitigation measures that, if implemented, would prevent significant impacts that would otherwise require an environmental impact statement. No mitigation measures are required for the Proposed Action discussed in this EA because resulting impacts would not meet the significance criteria described for each resource in Section 4.0; that is, the impacts would not be significant. Additionally, BMPs, where applicable for each resource, would be implemented to minimize impacts.

5.0 FINDINGS AND CONCLUSIONS

5.1 Findings

5.1.1 CONSEQUENCES OF NO ACTION ALTERNATIVE

Under the No Action Alternative, the proposed new BRAC facilities would not be constructed, and no environmental impacts would occur. Implementation of the No Action Alternative is not feasible because the BRAC actions are required by law to be implemented, if the Army is able to acquire land suitable for the construction of the facilities.

5.1.2 CONSEQUENCES OF THE PREFERRED ALTERNATIVE

There would be no significant impacts resulting from the Proposed Action at RRAD. Table 5-1 summarizes the impacts of the Preferred Alternative and the No Action Alternative.

Table 5-1. Summary of Impacts of the Preferred Alternative and the No Action Alternative.

Resource	Impacts of the No Action Alternative	Impacts of the Preferred Alternative	
		Construction (short term)	Operation (long term)
Land Use			
<i>Regional Geographic Setting, Location, and Climate</i>	None	None	None
<i>Current and Future Development in the Region of Influence</i>	None	Although long-term commitment of the resources, the AFRC is compatible with surrounding land use	None
Aesthetics and Visual Resources	None	Minor impacts from ground disturbance and the presence of workers, vehicles, and equipment and the generation of dust and vehicle exhaust	Visual impacts from buildings; aesthetics would be considered in building design
Air Quality			
<i>Ambient Air Quality Conditions</i>	None	Temporary emissions during construction but BMPs implemented to reduce effects	None
<i>Conformity</i>	None	None	None
Noise	None	Intermittent impacts from construction equipment	Minimal noise added to current noise environment
Geology and Soils			
<i>Geologic and Topographic Conditions</i>	None	Only minor leveling and grading would be required	None
<i>Soils</i>	None	Increased potential of soil erosion which can be lessened through use of BMPs	None
<i>Prime Farmland</i>	None	None - no lands suitable for classification as prime farmland	None
Water Resources			
<i>Surface Water</i>	None	Minimal impacts due to erosion control and coverage under the TPDES program including implementation of a SWPPP	Increased surface water runoff due to increased impervious surfaces

Table 5-1. Summary of Impacts of the Preferred Alternative and the No Action Alternative. (continued)

Resource	Impacts of the No Action Alternative	Impacts of the Preferred Alternative	
		Construction (short term)	Operation (long term)
<i>Hydrogeology/Groundwater</i>	None	Possible impacts due to the potential for spill and contamination sources from construction activities. Potential contamination sources would be controlled and minimized by implementation of SPCC Plan and through compliance with the existing RRAD Industrial Storm Water Multi-Sector General Permit.	Slight reduction in groundwater recharge due to increased impervious surfaces
<i>Floodplains</i>	None	None	None
Biological Resources			
<i>Vegetation</i>	None	Site already cleared and current vegetation is in primary succession stage	None
<i>Wildlife</i>	None	Minimal impacts from disturbance during construction	None
<i>Sensitive Species</i>	None	Not likely to adversely affect	None
<i>Wetlands</i>	None	Not likely to adversely affect – wetlands delineation of area and maintaining appropriate buffers will reduce any impacts	None
Cultural Resources			
<i>Cultural Resource Inventories</i>	None	None	None
<i>Native American Resources</i>	None	None	None
Socioeconomics			
<i>Economic Development</i>	None	Approximately 81 direct construction-related jobs would be created, most of which would be temporary	None
<i>Demographics</i>	None	None	None
<i>Housing</i>	None	None	None
<i>Quality of Life</i>	None	None	None
<i>Environmental Justice</i>	None	Beneficial impact to minority and low-income populations if hired for construction	None
<i>Protection of Children</i>	None	None	None

Table 5-1. Summary of Impacts of the Preferred Alternative and the No Action Alternative. (continued)

Resource	Impacts of the No Action Alternative	Impacts of the Preferred Alternative	
		Construction (short term)	Operation (long term)
Transportation			
<i>Roadways and Traffic</i>	None	Temporary increase in traffic due to construction vehicles	Increased traffic from additional workforce confined to weekends
<i>Public Transportation</i>	None	None	None
Utilities			
<i>Potable Water Supply</i>	None	No significant impact	No significant impact
<i>Wastewater System</i>	None	None	No significant impact
<i>Stormwater System</i>	None	Minor adverse impacts resulting from increased stormwater runoff due to removal of vegetated surfaces	Minor adverse impacts resulting from increased stormwater runoff due to increased impervious surfaces
<i>Energy Sources</i>	None	None	None
<i>Communication</i>	None	Possible short-term disruptions from utility extensions	No significant impact
<i>Solid Waste</i>	None	Minor increase in solid waste as a result of construction activities	No significant impact
Hazardous and Toxic Substances			
<i>Hazardous Materials</i>	None	Minimal adverse impacts due to the potential for spills and leaks from construction equipment minimized with spill management plans	Use and storage of hazardous materials for routine facilities and military vehicle maintenance would be minimal and would likely be limited to cleaning products, paints, adhesives, and military vehicle maintenance liquids
<i>Hazardous Waste Disposal</i>	None	Impacts would not be significant with proper storage and disposal.	Impacts would not be significant with proper storage and disposal.

AFRC Armed Forces Reserve Center
 BMP best management practice
 RRAD Red River Army Depot
 SPCC Spill Prevention, Control, and Countermeasures
 SWPPP Stormwater Pollution Prevention Plan
 TPDES Texas Pollutant Discharge Elimination System

5.2 Conclusions

Direct, indirect, and cumulative impacts of the Preferred Alternative and the No Action Alternative have been considered. The evaluation performed within this EA concludes that there would be *no significant adverse impact*, either individually or cumulatively, to the local environment or quality of life as a result of the implementation of the Preferred

Alternative, provided that BMPs specified in this EA are implemented. Positive impacts to the local socioeconomic environment would be anticipated. Therefore, the issuance of a FNSI is warranted, and preparation of an environmental impact statement is not required.

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*Environmental Assessment for Construction of an
Armed Forces Reserve Center and
Implementation of BRAC 05 Recommendations at
Red River Army Depot*

APPENDIX A

CONSULTATION AND COORDINATION

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APPENDIX A. CONSULTATION AND COORDINATION

This appendix contains the following consultation and coordination documents. Letters sent before May 16, 2009 were sent from the 90th Regional Readiness Command. On May 16, 2009, real property ownership of Red River Army Depot moved to the 63rd Regional Support Command (63D RSC).

- Letters sent to the State Historic Preservation Officer, Texas Historical Commission, dated April 7 and July 30, 2009
- Letters sent to the Caddo Nation, dated April 7 and July 30, 2009
- Letters sent to the Comanche Indian Tribe of Oklahoma, dated April 7 and July 30, 2009
- Letters sent to the Kiowa Indian Tribe of Oklahoma, dated April 7 and July 30, 2009
- Letters sent to the Tonkawa Tribe of Indians of Oklahoma, dated April 7 and July 30, 2009
- Letters sent to the Wichita Tribe, dated April 7 and July 30, 2009

The above letters dated April 7, 2009 contained attachments showing the location of Red River Army Depot, the location of the proposed site on the depot, and an aerial photograph of the proposed site. Examples of these are shown as attachments to the letter to the State Historic Preservation Officer, dated April 7, 2009. The above letters dated July 30, 2009 contained the *Cultural Resources Survey for a Proposed Armed Forces Reserve Center at the Red River Army Depot, Texarkana, Bowie County, Texas*.

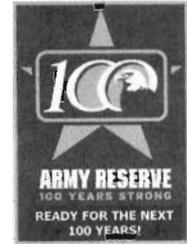
- Letter sent to the U.S. Fish and Wildlife Service, dated April 8, 2009
- Two letters sent to the Texas Commission on Environmental Quality, dated April 8, 2009
- Letter sent to the Texas Parks and Wildlife Department dated April 8, 2009

The above letters contained an attachment showing an aerial photograph of the proposed site on Red River Army Depot. An example is shown as an attachment to the letter to the U.S. Fish and Wildlife Service, dated April 8, 2009.

- Fax transmittal received from the Texas Commission on Environmental Quality, dated April 29, 2009
- Letter received from the Texas Parks and Wildlife Department, dated May 6, 2009
- E-mail communication received from the U.S. Fish and Wildlife Service, dated May 8, 2009
- Determination of No Historic Properties Affected received from the State Historic Preservation Office, dated August 26, 2009
- Records of Conversation with the Caddo Nation, Comanche Indian Tribe of Oklahoma, Kiowa Indian Tribe of Oklahoma, Tonkawa Tribe of Indians of Oklahoma, and Wichita Tribe



DEPARTMENT OF THE ARMY
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CAPTAIN MAURICE L. BRITT UNITED STATES ARMY RESERVE CENTER
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April 7, 2009

Reply to the Attention of the Environmental Office

Mr. F. Lawrence Oaks
State Historic Preservation Officer
Texas Historical Commission
P.O. Box 12276
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Dear Mr. Oaks,

The Department of the Army is considering the construction of an Armed Forces Reserve Center at Red River Army Depot (RRAD), located about 20 miles west of Texarkana in Bowie County, Texas, (see Attachment 1) as part of the restructuring of military bases recommended by the Defense Base Closure and Realignment Act (BRAC). In following with BRAC Army Policy, a Cultural Resource Assessment will be conducted in strict accordance with the National Environmental Policy Act of 1969, as amended (42 USC 4321 et seq.); National Historic Preservation Act of 1966, as amended (PL 89-6650), its implementing authority, Section 106 of 36 CFR 800; Archaeological and Historic Preservation of 1974; Native American Graves Protection and Repatriation Act of 1990; Executive Order #11593; Council on Environmental Quality Regulations (40 CFR 1500-1508); and Environmental Analysis of Army Actions (32 CFR Part 651).

The Army takes seriously its obligations to the Texas Historical Commission and the purpose of this letter is to request your early input on the proposed federal action.

A Phase I Cultural Resource Survey will be conducted of the project area and in accordance with the Secretary of Interior's Standards and Guidelines. The project area is an estimated 15-acre site within the RRAD. The site is located within RRAD on the northern boundary along the North Boundary Patrol Road and immediately south of U.S. Highway 82, approximately 20 miles west of Texarkana and can be found on the United States Geological Survey's Hooks Quadrangle Map. Attachments 2 and 3 show the location and aerial photograph of the site, respectively. This investigation will include a literature review of the Texas Atlas Site Files and any previous survey reports. A draft copy of the Archaeological Survey Report will be provided for your comments. Upon approval of the final report, the Texas Historical Commission will be provided with a copy for your library.

As this is an accelerated project, your prompt response and comments will be appreciated. I would also like to thank you in advance for your cooperation in this matter. If you have any questions concerning this request, please do not hesitate to contact me at (501) 771-7992.

Sincerely,

A handwritten signature in cursive script that reads "James Wheeler II". The signature is written in dark ink and is positioned above the typed name and title.

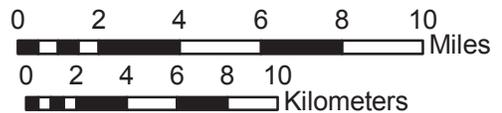
James Wheeler II
Chief, Environmental Division
90th Regional Readiness Command

Enclosures



Legend

- City Boundary
- Rivers and Reservoirs



Prepared For:

U.S Army Corps of Engineers, Mobile District

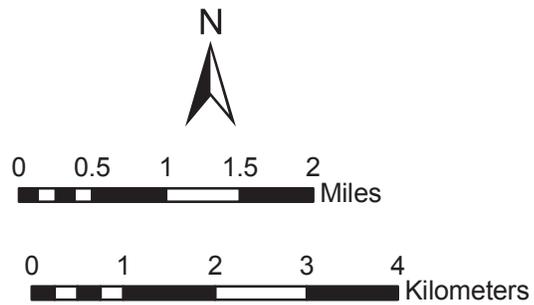
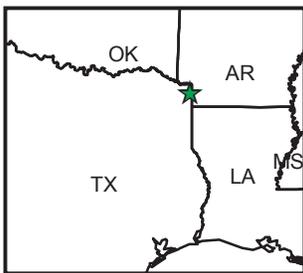
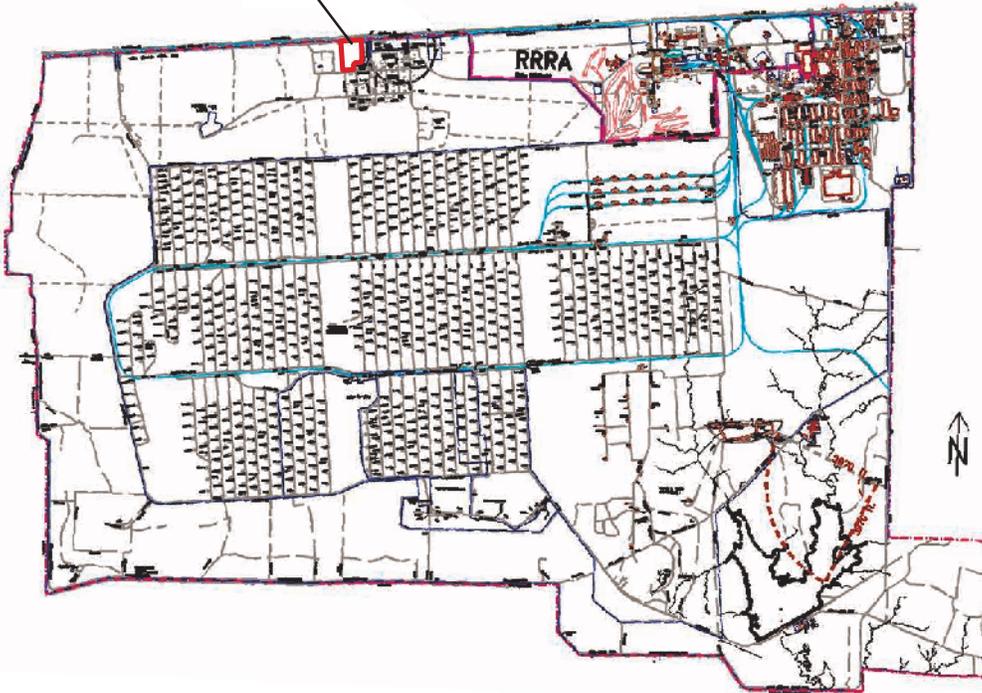
Attachment 1

Red River Army Depot,
Texarkana, Texas Location Map



Red River Army Depot

Boundary of Proposed Site



Legend

 Boundary of Proposed Site

Prepared For:

U.S Army Corps of Engineers, Mobile District

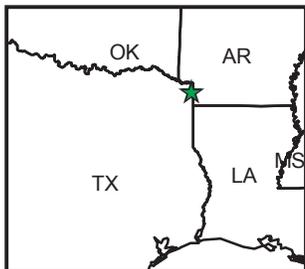
Attachment 2

Location of Proposed Site
on Red River Army Depot





Source of Aerial Photograph: 2005 National Agriculture Imagery Program



Legend

 Approximate Boundary of Proposed Site



0 200 400 600 800 Feet

0 50 100 150 200 Meters

Prepared For:

U.S Army Corps of Engineers, Mobile District

Attachment 3

Aerial Photograph of Proposed Site
on Red River Army Depot





DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 63RD REGIONAL SUPPORT COMMAND
MOFFETT FIELD UNITED STATES ARMY RESERVE CENTER
153 DAILY ROAD
MOFFETT FIELD, CALIFORNIA 94035-1000

July 30, 2009

Reply to the Attention of the Environmental Office

Mr. F. Lawrence Oaks
State Historic Preservation Officer
Texas Historical Commission
1511 Colorado Street
Austin, TX 78701

Dear Mr. Oaks,

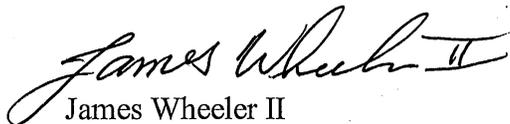
In a letter dated April 7, 2009, the Department of the Army (Army) informed you of our intention to construct an Armed Forces Reserve Center at the Red River Army Depot (RRAD), Bowie County, Texas. This action is pursuant to requirements of the Defense Base Closure and Realignment Act of 1990 (BRAC), amended by Title XXX of the National Defense Authorization Act for Fiscal Year 2002 (Public Law 107-107), as amended.

In conjunction with that effort and in accordance with the National Historic Preservation Act (NHPA) of 1966, as amended and its implementing regulation, 36 CFR 800, the Army has conducted a Cultural Resources Survey of the project area. The Survey identified site 41BW760 which consists of four foundations built by the Army and dating to 1943. The Army has determined that site 41BW760 is not eligible for listing in the National Register of Historic Places.

A copy of the draft report, "*Cultural Resources Survey for a Proposed Armed Forces Reserve Center at the Red River Army Depot, Texarkana, Bowie County, Texas*" is enclosed for your review and comments.

Based on the findings of the survey, the Army has determined that No Historic Properties will be affected by the proposed undertaking. In accordance with 36 CFR Part 800.4(d)(1), we respectfully request your concurrence with our determination. Your prompt attention to this matter would be greatly appreciated. If you have any questions pertaining to this report or its findings, please do not hesitate to contact the RRAD Environmental Coordinator, Ross Ramsauer, at (903) 334-2594 or me at (501) 771-7992.

Sincerely,

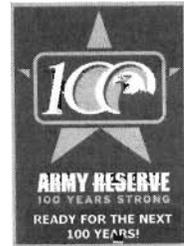
A handwritten signature in cursive script that reads "James Wheeler II". The signature is written in dark ink and is positioned above the printed name and title.

James Wheeler II
BRAC Environmental Coordinator
63D Regional Support Command

Enclosures



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 7, 2009

Reply to the Attention of the Environmental Office

Ms. LaRue Martin Parker, Chairperson
c/o Robert Cast
Tribal Historic Preservation Officer
Caddo Nation
P. O. Box 487
Binger, Oklahoma 73009

Dear Ms. Parker,

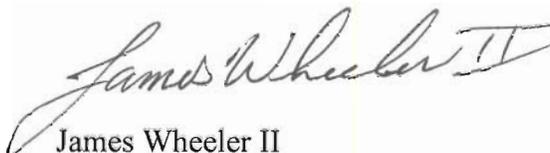
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The Army takes seriously its obligations to the Caddo Nation and the purpose of this letter is to request your early input on the proposed federal action.

A Phase I Cultural Resource Survey will be conducted of the project area and in accordance with the Secretary of Interior's Standards and Guidelines. The project area is an estimated 15-acre site within the RRAD. The site is located within RRAD on the northern boundary along the North Boundary Patrol Road and immediately south of U.S. Highway 82, approximately 20 miles west of Texarkana and can be found on the United States Geological Survey's Hooks Quadrangle Map. Attachments 2 and 3 show the location and aerial photograph of the site, respectively. This investigation will include a literature review of the Texas Atlas Site Files and any previous survey reports. A draft copy of the Archaeological Survey Report will be provided for your comments. Upon approval of the final report, the Caddo Nation will be provided with a copy for your library.

As this is an accelerated project, your prompt response and comments will be appreciated. I would also like to thank you in advance for your cooperation in this matter. If you have any questions concerning this request, please do not hesitate to contact me at (501) 771-7992. I thank you for your time and consideration.

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

Enclosures



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 63RD REGIONAL SUPPORT COMMAND
MOFFETT FIELD UNITED STATES ARMY RESERVE CENTER
153 DAILY ROAD
MOFFETT FIELD, CALIFORNIA 94035-1000

July 30, 2009

Reply to the Attention of the Environmental Office

Ms. LaRue Martin Parker, Chairperson
Attn: Mr. Robert Cast, Tribal Historic Preservation Officer
Caddo Nation of Oklahoma
P.O. Box 487
Binger, OK 73009

Dear Chairperson Parker,

In a letter dated April 7, 2009, the Department of the Army (Army) informed you of our intention to construct an Armed Forces Reserve Center at the Red River Army Depot (RRAD), Bowie County, Texas. This action is pursuant to requirements of the Defense Base Closure and Realignment Act of 1990 (BRAC), amended by Title XXX of the National Defense Authorization Act for Fiscal Year 2002 (Public Law 107-107), as amended.

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As part of the on-going consultation process with the Caddo Nation under Section 106 of the NHPA, we have enclosed a copy of the draft report, "*Cultural Resources Survey for a Proposed Armed Forces Reserve Center at the Red River Army Depot, Texarkana, Bowie County, Texas*" for your review and comments.

We thank you for your prompt response to this request for review. If you have any questions pertaining to this report, its findings, or the project in general, please do not hesitate to contact the RRAD Environmental Coordinator, Ross Ramsauer, at (903) 334-2594 or me at (501) 771-7992.

Sincerely,

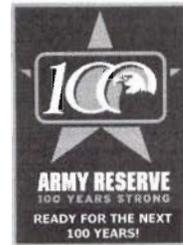
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James Wheeler II
BRAC Environmental Coordinator
63D Regional Support Command

Enclosures



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 7, 2009

Reply to the Attention of the Environmental Office

Mr. Wallace E. Coffey, Chairperson
c/o Ruth Toahty
Tribal Historic Preservation Officer
Comanche Indian Tribe of Oklahoma
PO BOX 908
Lawton, OK 73052

Dear Mr. Coffey,

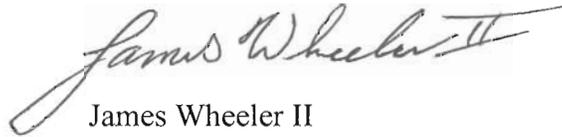
The Department of the Army is considering the construction of an Armed Forces Reserve Center at Red River Army Depot (RRAD), located about 20 miles west of Texarkana in Bowie County, Texas, (see Attachment 1) as part of the restructuring of military bases recommended by the Defense Base Closure and Realignment Act (BRAC). In following with BRAC Army Policy, a Cultural Resource Assessment will be conducted in strict accordance with the National Environmental Policy Act of 1969, as amended (42 USC 4321 et seq.); National Historic Preservation Act of 1966, as amended (PL 89-6650), its implementing authority, Section 106 of 36 CFR 800; Archaeological and Historic Preservation of 1974; Native American Graves Protection and Repatriation Act of 1990; Executive Order #11593; Council on Environmental Quality Regulations (40 CFR 1500-1508); and Environmental Analysis of Army Actions (32 CFR Part 651).

The Army takes seriously its obligations to the Comanche Indian Tribe of Oklahoma and the purpose of this letter is to request your early input on the proposed federal action.

A Phase I Cultural Resource Survey will be conducted of the project area and in accordance with the Secretary of Interior's Standards and Guidelines. The project area is an estimated 15-acre site within the RRAD. The site is located within RRAD on the northern boundary along the North Boundary Patrol Road and immediately south of U.S. Highway 82, approximately 20 miles west of Texarkana and can be found on the United States Geological Survey's Hooks Quadrangle Map. Attachments 2 and 3 show the location and aerial photograph of the site, respectively. This investigation will include a literature review of the Texas Atlas Site Files and any previous survey reports. A draft copy of the Archaeological Survey Report will be provided for your comments. Upon approval of the final report, the Comanche Indian Tribe of Oklahoma will be provided with a copy for your library.

As this is an accelerated project, your prompt response and comments will be appreciated. I would also like to thank you in advance for your cooperation in this matter. If you have any questions concerning this request, please do not hesitate to contact me at (501) 771-7992. I thank you for your time and consideration.

Sincerely,

A handwritten signature in cursive script that reads "James Wheeler II". The signature is written in dark ink and is positioned above the typed name.

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

Enclosures



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 63RD REGIONAL SUPPORT COMMAND
MOFFETT FIELD UNITED STATES ARMY RESERVE CENTER
153 DAILY ROAD
MOFFETT FIELD, CALIFORNIA 94035-1000

July 30, 2009

Reply to the Attention of the Environmental Office

Mr. Michael Burgess, Chairperson
Attn: Mr. Jimmy Arterberry, Tribal Historic Preservation Officer
Comanche Indian Tribe of Oklahoma
Comanche Tribal Business Committee
584 NW Bingo Rd.
Lawton, OK 73502

Dear Chairperson Burgess,

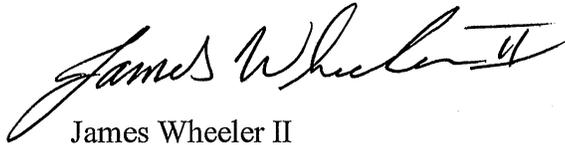
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In conjunction with that effort and in accordance with the National Historic Preservation Act (NHPA) of 1966, as amended and its implementing regulation, 36 CFR 800, the Army has conducted a Cultural Resources Survey of the project area. The survey found no prehistoric or historic cultural resources within the proposed Area of Potential Effect with the exception of site 41BW760 which consists of four foundations built by the Army and dating to 1943. The Army has determined that site 41BW760 is not eligible for listing in the National Register of Historic Places.

As part of the on-going consultation process with the Comanche Indian Tribe of Oklahoma under Section 106 of the NHPA, we have enclosed a copy of the draft report, "*Cultural Resources Survey for a Proposed Armed Forces Reserve Center at the Red River Army Depot, Texarkana, Bowie County, Texas*" for your review and comments.

We thank you for your prompt response to this request for review. If you have any questions pertaining to this report, its findings, or the project in general, please do not hesitate to contact the RRAD Environmental Coordinator, Ross Ramsauer, at (903) 334-2594 or me at (501) 771-7992.

Sincerely,

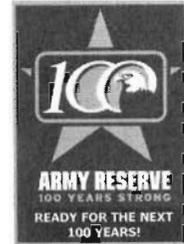
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James Wheeler II
BRAC Environmental Coordinator
63D Regional Support Command

Enclosures



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 7, 2009

Reply to the Attention of the Environmental Office

Mr. Billy Horse Evans, Chairperson
c/o Jamie Eskew
Tribal Historic Preservation Officer
Kiowa Indian Tribe of Oklahoma
PO BOX 369
Carnegie OK 73015

Dear Mr. Evans,

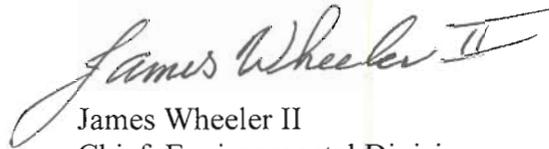
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The Army takes seriously its obligations to the Kiowa Indian Tribe of Oklahoma and the purpose of this letter is to request your early input on the proposed federal action.

A Phase I Cultural Resource Survey will be conducted of the project area and in accordance with the Secretary of Interior's Standards and Guidelines. The project area is an estimated 15-acre site within the RRAD. The site is located within RRAD on the northern boundary along the North Boundary Patrol Road and immediately south of U.S. Highway 82, approximately 20 miles west of Texarkana and can be found on the United States Geological Survey's Hooks Quadrangle Map. Attachments 2 and 3 show the location and aerial photograph of the site, respectively. This investigation will include a literature review of the Texas Atlas Site Files and any previous survey reports. A draft copy of the Archaeological Survey Report will be provided for your comments. Upon approval of the final report, the Kiowa Indian Tribe of Oklahoma will be provided with a copy for your library.

As this is an accelerated project, your prompt response and comments will be appreciated. I would also like to thank you in advance for your cooperation in this matter. If you have any questions concerning this request, please do not hesitate to contact me at (501) 771-7992. I thank you for your time and consideration.

Sincerely,

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

Enclosures



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 63RD REGIONAL SUPPORT COMMAND
MOFFETT FIELD UNITED STATES ARMY RESERVE CENTER
153 DAILY ROAD
MOFFETT FIELD, CALIFORNIA 94035-1000

July 30, 2009

Reply to the Attention of the Environmental Office

Mr. Don Tofpi, Chairperson
ATTN: Mr. Dewey Tsonetokoy, NAGPRA Officer
Kiowa Indian Tribe of Oklahoma
P.O. Box 369
Carnegie, OK 73015

Dear Chairperson Tofpi,

In a letter dated April 7, 2009, the Department of the Army (Army) informed you of our intention to construct an Armed Forces Reserve Center at the Red River Army Depot (RRAD), Bowie County, Texas. This action is pursuant to requirements of the Defense Base Closure and Realignment Act of 1990 (BRAC), amended by Title XXX of the National Defense Authorization Act for Fiscal Year 2002 (Public Law 107-107), as amended.

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As part of the on-going consultation process with the Kiowa Indian Tribe of Oklahoma under Section 106 of the NHPA, we have enclosed a copy of the draft report, "*Cultural Resources Survey for a Proposed Armed Forces Reserve Center at the Red River Army Depot, Texarkana, Bowie County, Texas*" for your review and comments.

We thank you for your prompt response to this request for review. If you have any questions pertaining to this report, its findings, or the project in general, please do not hesitate to contact the RRAD Environmental Coordinator, Ross Ramsauer, at (903) 334-2594 or me at (501) 771-7992.

Sincerely,

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James Wheeler II
BRAC Environmental Coordinator
63D Regional Support Command

Enclosures



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 7, 2009

Reply to the Attention of the Environmental Office

Mr. Don Patterson, President
c/o Miranda Allen
NAGPRA Specialist
Tonkawa Tribe of Indians of Oklahoma
1 Rush Buffalo Rd.
Tonkawa, OK 74653-4449

Dear Mr. Patterson,

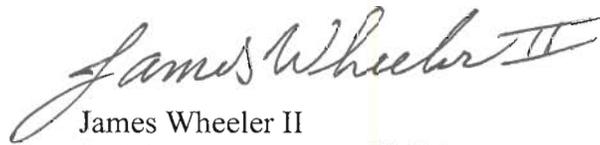
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The Army takes seriously its obligations to the Tonkawa Tribe of Indians of Oklahoma and the purpose of this letter is to request your early input on the proposed federal action.

A Phase I Cultural Resource Survey will be conducted of the project area and in accordance with the Secretary of Interior's Standards and Guidelines. The project area is an estimated 15-acre site within the RRAD. The site is located within RRAD on the northern boundary along the North Boundary Patrol Road and immediately south of U.S. Highway 82, approximately 20 miles west of Texarkana and can be found on the United States Geological Survey's Hooks Quadrangle Map. Attachments 2 and 3 show the location and aerial photograph of the site, respectively. This investigation will include a literature review of the Texas Atlas Site Files and any previous survey reports. A draft copy of the Archaeological Survey Report will be provided for your comments. Upon approval of the final report, the Tonkawa Tribe of Indians of Oklahoma will be provided with a copy for your library.

As this is an accelerated project, your prompt response and comments will be appreciated. I would also like to thank you in advance for your cooperation in this matter. If you have any questions concerning this request, please do not hesitate to contact me at (501) 771-7992. I thank you for your time and consideration.

Sincerely,

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

Enclosures



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 63RD REGIONAL SUPPORT COMMAND
MOFFETT FIELD UNITED STATES ARMY RESERVE CENTER
153 DAILY ROAD
MOFFETT FIELD, CALIFORNIA 94035-1000

July 30, 2009

Reply to the Attention of the Environmental Office

Mr. Don Patterson, President
Tonkawa Tribe of Indians of Oklahoma
1 Rush Buffalo Road
Tonkawa, OK 74653-4449

Dear President Patterson,

In a letter dated April 7, 2009, the Department of the Army (Army) informed you of our intention to construct an Armed Forces Reserve Center at the Red River Army Depot (RRAD), Bowie County, Texas. This action is pursuant to requirements of the Defense Base Closure and Realignment Act of 1990 (BRAC), amended by Title XXX of the National Defense Authorization Act for Fiscal Year 2002 (Public Law 107-107), as amended.

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As part of the on-going consultation process with the Tonkawa Tribe of Indians of Oklahoma under Section 106 of the NHPA, we have enclosed a copy of the draft report, "*Cultural Resources Survey for a Proposed Armed Forces Reserve Center at the Red River Army Depot, Texarkana, Bowie County, Texas*" for your review and comments.

We thank you for your prompt response to this request for review. If you have any questions pertaining to this report, its findings, or the project in general, please do not hesitate to contact the RRAD Environmental Coordinator, Ross Ramsauer, at (903) 334-2594 or me at (501) 771-7992.

Sincerely,

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James Wheeler II
BRAC Environmental Coordinator
63D Regional Support Command

Enclosures



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 7, 2009

Reply to the Attention of the Environmental Office

Mr. Gary McAdams, President
c/o Mr. Stratford Williams
Tribal Historic Preservation Officer
Wichita Tribe
Wichita Executive Committee
P.O. Box 729
Anadarko, OK 73005

Dear Mr. McAdams,

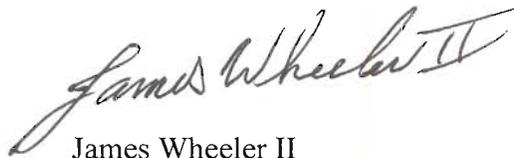
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The Army takes seriously its obligations to the Wichita Tribe and the purpose of this letter is to request your early input on the proposed federal action.

A Phase I Cultural Resource Survey will be conducted of the project area and in accordance with the Secretary of Interior's Standards and Guidelines. The project area is an estimated 15-acre site within the RRAD. The site is located within RRAD on the northern boundary along the North Boundary Patrol Road and immediately south of U.S. Highway 82, approximately 20 miles west of Texarkana and can be found on the United States Geological Survey's Hooks Quadrangle Map. Attachments 2 and 3 show the location and aerial photograph of the site, respectively. This investigation will include a literature review of the Texas Atlas Site Files and any previous survey reports. A draft copy of the Archaeological Survey Report will be provided for your comments. Upon approval of the final report, the Wichita Tribe will be provided with a copy for your library.

As this is an accelerated project, your prompt response and comments will be appreciated. I would also like to thank you in advance for your cooperation in this matter. If you have any questions concerning this request, please do not hesitate to contact me at (501) 771-7992. I thank you for your time and consideration.

Sincerely,

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

Enclosures



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 63RD REGIONAL SUPPORT COMMAND
MOFFETT FIELD UNITED STATES ARMY RESERVE CENTER
153 DAILY ROAD
MOFFETT FIELD, CALIFORNIA 94035-1000

July 30, 2009

Reply to the Attention of the Environmental Office

Honorable Leslie Standing, President
Attn: Mr. Stratford Williams, Tribal Historic Preservation Officer
Wichita and Affiliated Tribes
P.O. Box 729
Anadarko, OK 73005

Dear President Standing,

In a letter dated April 7, 2009, the Department of the Army (Army) informed you of our intention to construct an Armed Forces Reserve Center at the Red River Army Depot (RRAD), Bowie County, Texas. This action is pursuant to requirements of the Defense Base Closure and Realignment Act of 1990 (BRAC), amended by Title XXX of the National Defense Authorization Act for Fiscal Year 2002 (Public Law 107-107), as amended.

In conjunction with that effort and in accordance with the National Historic Preservation Act (NHPA) of 1966, as amended and its implementing regulation, 36 CFR 800, the Army has conducted a Cultural Resources Survey of the project area. The survey found no prehistoric or historic cultural resources within the proposed Area of Potential Effect with the exception of site 41BW760 which consists of four foundations built by the Army and dating to 1943. The Army has determined that site 41BW760 is not eligible for listing in the National Register of Historic Places.

As part of the on-going consultation process with the Wichita under Section 106 of the NHPA, we have enclosed a copy of the draft report, "*Cultural Resources Survey for a Proposed Armed Forces Reserve Center at the Red River Army Depot, Texarkana, Bowie County, Texas*" for your review and comments.

We thank you for your prompt response to this request for review. If you have any questions pertaining to this report, its findings, or the project in general, please do not hesitate to contact the RRAD Environmental Coordinator, Ross Ramsauer, at (903) 334-2594 or me at (501) 771-7992.

Sincerely,



James Wheeler II
BRAC Environmental Coordinator
63D Regional Support Command

Enclosures



DEPARTMENT OF THE ARMY
UNITED STATES ARMY TACOM LIFE CYCLE MANAGEMENT COMMAND
RED RIVER ARMY DEPOT
100 MAIN DRIVE
TEXARKANA TX 75507-5000

April 8, 2009

Thomas Cloud
Field Supervisor
U.S. Fish and Wildlife Service
Ecological Services
711 Stadium Drive, Ste. 252
Arlington, Texas 76011

SUBJECT: Intergovernmental and Interagency Environmental Planning Consultation for Proposed Armed Forces Reserve Center at Red River Army Depot, Texarkana, Texas

Dear Mr. Cloud:

On September 8, 2005, the Defense Base Closure and Realignment Commission (BRAC Commission) recommended that certain realignment actions occur on Red River Army Depot (RRAD), Texarkana, Texas. To implement these recommendations, the U.S. Army proposes to construct a new Armed Forces Reserve Center (AFRC) and related facilities on the Red River Army Depot to support the changes in force structure. The AFRC (36,925-square-feet) would provide administrative, educational, assembly, kitchen, library, learning center, vault, weapons simulator, and physical fitness areas for nine United States Army Reserve units and one Texas Army National Guard unit. A 9,065-square-foot Organizational Maintenance Shop would provide work bays and maintenance administrative support. Additionally, a 7,300-square-foot multi-use classroom would also be constructed on the site. Supporting improvements are proposed to complement the facilities, including approximately 2,342 square yards of pavement for privately-owned vehicles; 2,688 square yards of pavement for military equipment parking; 4,849 square yards of pavement for the access road; walkways; fencing; grading, clearing and landscaping; extension of utility services; security fencing and gates; and general site improvements. Anti-terrorism/Force Protection safety and security regulations would be incorporated into the facility design. Site improvements are expected to require approximately 15 acres (Attachment 1).

An Environmental Assessment will evaluate the environmental, cultural, and socioeconomic impacts associated with the proposed action pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S. Code [USC] 4321 et seq.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); and 32 CFR Part 651; as well as the NGB NEPA Manual – *Guidance on Preparing Environmental Documentation for Army National Guard Actions in Compliance with NEPA* (NGB, 2006). We would appreciate any information you can provide on the following environmental issue areas (at or in the vicinity of the project area):

- Potential environmental concerns or issues;
- Surface and groundwater resources, including streams, wetlands, floodplains, open water features, wells, and local aquifers;
- State and Federally listed threatened or endangered species, or any species proposed for such listing, or critical habitat for such species that may occur within a 1-mile radius around the project area:

- Parks, nature preserves, conservation areas, designated wild or scenic rivers, migratory bird habitats, or special wildlife issues;
- Natural resources issues; and
- Additional environmental, cultural, land use or socioeconomic information or concerns your agency may have with regard to the project area.

Data that you make available will provide input to the NEPA evaluation. As part of the NEPA process, local citizens, groups, and agencies, among others, will have ample future opportunity to review and comment on the information and alternatives addressed in the document. The Army does not anticipate any adverse impacts to Federal or State protected species as a result of the Proposed Action. The RRAD is not aware of any federally protected species occurring on the installation. In Bowie County, the least tern (*Sternula antillarum*) and Louisiana Black Bear (*Ursus americanus luteolus*) are listed, but have not been documented on RRAD. In addition, a state rare plant species, the Arkansas meadow rue (*Thalictrum arkansanum*), is also listed for the county; however, no evidence of this species was observed during the planning level surveys (PLS) on the installation. The alligator snapping turtle (*Macrolemys temminckii*), a state-listed threatened species, was the only state sensitive species observed at RRAD during the PLS. The USFWS conducted a wetland inventory on RRAD from 1997 to 1998 and concluded that approximately 2,550 acres of wetlands and deepwater habitats occur on the installation. Site specific information on wetlands will be further determined for the Proposed Action.

We look forward to and welcome your participation in this study. Please respond at your earliest convenience. Please send your responses to:

Red River Army Depot
Attn: Mr. Ross Ramsauer
Bldg. 15, BRAC Office
100 Main Drive
Texarkana, TX 75503-5000

If you have any questions or concerns with regard to this request, please direct them to me at (903) 334-2594 or Ross.Ramsauer@us.army.mil. Thank you for taking the time to review this letter.

Sincerely,



Ross Ramsauer
BRAC Environmental Coordinator
Red River Army Depot

ATTACHMENT: Site location, Red River Army Depot



Source of Aerial Photograph: 2005 National Agriculture Imagery Program



Legend

 Approximate Preferred Site Boundary



0 200 400 600 800 Feet

0 50 100 150 200 Meters

Prepared For:
U.S Army Corps of Engineers, Mobile District

Attachment 1
Aerial Photograph of Preferred Alternative





DEPARTMENT OF THE ARMY
UNITED STATES ARMY TACOM LIFE CYCLE MANAGEMENT COMMAND
RED RIVER ARMY DEPOT
100 MAIN DRIVE
TEXARKANA TX 75507-5000

April 8, 2009

Vern Mattheis
Texas Commission on Environmental Quality
Region 5
2916 Teague Drive
Tyler, TX 75701

Re: TCEQ SWR No. 67004
Hazardous Waste Permit No. HW-50178
EPA ID No. Tx3213820738

SUBJECT: Intergovernmental and Interagency Environmental Planning Consultation for Proposed Armed Forces Reserve Center at Red River Army Depot, Texarkana, Texas

Dear Mr. Mattheis:

On September 8, 2005, the Defense Base Closure and Realignment Commission (BRAC Commission) recommended that certain realignment actions occur on Red River Army Depot (RRAD), Texarkana, Texas. To implement these recommendations, the U.S. Army proposes to construct a new Armed Forces Reserve Center (AFRC) and related facilities on the Red River Army Depot, Bowie County, Texas to support the changes in force structure. The AFRC (36,925-square-feet) would provide administrative, educational, assembly, kitchen, library, learning center, vault, weapons simulator, and physical fitness areas for nine United States Army Reserve units and one Texas Army National Guard unit. A 9,065-square-foot Organizational Maintenance Shop (OMS) would provide work bays and maintenance administrative support. Additionally, a 7,300-square-foot multi-use classroom would also be constructed on the site. Supporting improvements are proposed to complement the facilities, including approximately 2,342 square yards of pavement for privately-owned vehicles; 2,688 square yards of pavement for military equipment parking; 4,849 square yards of pavement for the access road; walkways; fencing; grading; clearing and landscaping; extension of utility services; security fencing and gates; and general site improvements. Anti-terrorism/Force Protection safety and security regulations would be incorporated into the facility design. Site improvements are expected to require approximately 15 acres (Attachment 1).

Activities at the AFRC would be training-related, with no weapons firing. Activities at the OMS would include routine maintenance (e.g., oil change, tire rotation, etc.) or other vehicle repair as required. Approximately 39 vehicles are anticipated to be kept on-site and would include high mobility multi-purpose wheeled vehicles (Humvees); semi tractors; dump trucks; full-tracked tractors; road graders; earth scrapers; fuel-dispensing semi-trailers (5,000 gallons); flat bed, cargo, and specialty trailers; and utility trucks. The military vehicles and equipment kept on-site would generally be parked empty or loaded with equipment relevant for training.

An Environmental Assessment will evaluate the environmental, cultural, and socioeconomic impacts associated with the proposed action pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S. Code [USC] 4321 et seq.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); and 32 CFR Part 651; as well as the NGB NEPA Manual – *Guidance on Preparing Environmental Documentation for Army National Guard Actions in Compliance with NEPA* (NGB, 2006). We would appreciate any input you may have on the Proposed Action and its potential environmental impacts. Please respond at your earliest convenience. Please send your responses to:

Red River Army Depot
Attn: Mr. Ross Ramsauer
Bldg. 15, BRAC Office
100 Main Drive
Texarkana, TX 75503-5000

A copy of this letter was sent to TCEQ, Austin, TX, attn: Mr. Kirk Coulter. If you have any questions or concerns with regard to this request, please direct them to me at (903) 334-2594 or Ross.Ramsauer@us.army.mil. Thank you for taking the time to review this letter.

Sincerely,



Ross Ramsauer
BRAC Environmental Coordinator
Red River Army Depot

ATTACHMENT: Site location, Red River Army Depot



DEPARTMENT OF THE ARMY
UNITED STATES ARMY TACOM LIFE CYCLE MANAGEMENT COMMAND
RED RIVER ARMY DEPOT
100 MAIN DRIVE
TEXARKANA TX 75507-5000

April 8, 2009

Kirk Coulter
Team 3
Environmental Cleanup Section II
Texas Commission on Environmental Quality (MC127)
12100 Park 35 Circle
Austin, Tx 78753

Re: TCEQ SWR No. 67004
Hazardous Waste Permit No. HW-50178
EPA ID No. Tx3213820738

SUBJECT: Intergovernmental and Interagency Environmental Planning Consultation for Proposed Armed Forces Reserve Center at Red River Army Depot, Texarkana, Texas

Dear Mr. Coulter:

On September 8, 2005, the Defense Base Closure and Realignment Commission (BRAC Commission) recommended that certain realignment actions occur on Red River Army Depot (RRAD), Texarkana, Texas. To implement these recommendations, the U.S. Army proposes to construct a new Armed Forces Reserve Center (AFRC) and related facilities on the Red River Army Depot, Bowie County, Texas to support the changes in force structure. The AFRC (36,925-square-foot) would provide administrative, educational, assembly, kitchen, library, learning center, vault, weapons simulator, and physical fitness areas for nine United States Army Reserve units and one Texas Army National Guard unit. A 9,065-square-foot Organizational Maintenance Shop (OMS) would provide work bays and maintenance administrative support. Additionally, a 7,300-square-foot multi-use classroom would also be constructed on the site. Supporting improvements are proposed to complement the facilities, including approximately 2,342 square yards of pavement for privately-owned vehicles; 2,688 square yards of pavement for military equipment parking; 4,849 square yards of pavement for the access road; walkways; fencing; grading, clearing and landscaping; extension of utility services; security fencing and gates; and general site improvements. Anti-terrorism/Force Protection safety and security regulations would be incorporated into the facility design. Site improvements are expected to require approximately 15 acres (Attachment 1).

Activities at the AFRC would be training-related, with no weapons firing. Activities at the OMS would include routine maintenance (e.g., oil change, tire rotation, etc.) or other vehicle repair as required. Approximately 39 vehicles are anticipated to be kept on-site and would include high mobility multi-purpose wheeled vehicles (Humvees); semi tractors; dump trucks; full-tracked tractors; road graders; earth scrapers; fuel-dispensing semi-trailers (5,000 gallons); flat bed, cargo, and specialty trailers; and utility trucks. The military vehicles and equipment kept on-site would generally be parked empty or loaded with equipment relevant for training.

An Environmental Assessment will evaluate the environmental, cultural, and socioeconomic impacts associated with the proposed action pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S. Code [USC] 4321 et seq.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); and 32 CFR Part 651; as well as the NGB NEPA Manual – *Guidance on Preparing Environmental Documentation for Army National Guard Actions in Compliance with NEPA* (NGB, 2006). We would appreciate any input you may have on the Proposed Action and its potential environmental impacts. Please respond at your earliest convenience. Please send your responses to:

Red River Army Depot
Attn: Mr. Ross Ramsauer
Bldg. 15, BRAC Office
100 Main Drive
Texarkana, TX 75503-5000

A copy of this letter was sent to the TCEQ Region Office in Tyler, TX, attn: Mr. Vern Mattheis. If you have any questions or concerns with regard to this request, please direct them to me at (903) 334-2594 or Ross.Ramsauer@us.army.mil. Thank you for taking the time to review this letter.

Sincerely,



Ross Ramsauer
BRAC Environmental Coordinator
Red River Army Depot

ATTACHMENT: Site location, Red River Army Depot



DEPARTMENT OF THE ARMY
UNITED STATES ARMY TACOM LIFE CYCLE MANAGEMENT COMMAND
RED RIVER ARMY DEPOT
100 MAIN DRIVE
TEXARKANA TX 75507-5000

April 8, 2009

Mr. Carter Smith
Executive Director
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX, 78744

SUBJECT: Intergovernmental and Interagency Environmental Planning Consultation for Proposed Armed Forces Reserve Center at Red River Army Depot, Texarkana, Texas

Dear Mr. Smith:

On September 8, 2005, the Defense Base Closure and Realignment Commission (BRAC Commission) recommended that certain realignment actions occur on Red River Army Depot (RRAD), Texarkana, Texas. To implement these recommendations, the U.S. Army proposes to construct a new Armed Forces Reserve Center (AFRC) and related facilities on the Red River Army Depot to support the changes in force structure. The AFRC (36,925-square-feet) would provide administrative, educational, assembly, kitchen, library, learning center, vault, weapons simulator, and physical fitness areas for nine United States Army Reserve units and one Texas Army National Guard unit. A 9,065-square-foot Organizational Maintenance Shop (OMS) would provide work bays and maintenance administrative support. Additionally, a 7,300-square-foot multi-use classroom would also be constructed on the site. Supporting improvements are proposed to complement the facilities, including approximately 2,342 square yards of pavement for privately-owned vehicles; 2,688 square yards of pavement for military equipment parking; 4,849 square yards of pavement for the access road; walkways; fencing; grading, clearing and landscaping; extension of utility services; security fencing and gates; and general site improvements. Anti-terrorism/Force Protection safety and security regulations would be incorporated into the facility design. Site improvements are expected to require approximately 15 acres (Attachment 1).

An Environmental Assessment will evaluate the environmental, cultural, and socioeconomic impacts associated with the proposed action pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S. Code [USC] 4321 et seq.); the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); and 32 CFR Part 651; as well as the NGB NEPA Manual – *Guidance on Preparing Environmental Documentation for Army National Guard Actions in Compliance with NEPA* (NGB, 2006).

Information Requested: Any information you can provide on the following environmental issue areas (at or in the vicinity of the project area) is appreciated:

- Potential environmental concerns or issues;
- Surface and groundwater resources, including streams, wetlands, floodplains, open water features, wells, and local aquifers;
- State and Federally listed threatened or endangered species, or any species proposed for such listing, or critical habitat for such species that may occur within a 1-mile radius around the project area:

- Parks, nature preserves, conservation areas, designated wild or scenic rivers, migratory bird habitats, or special wildlife issues;
- Natural resources issues; and
- Additional environmental, cultural, land use or socioeconomic information or concerns your agency may have with regard to the project area.

Data that you make available will provide input to the NEPA evaluation. As part of the NEPA process, local citizens, groups, and agencies, among others, will have ample future opportunity to review and comment on the information addressed in the document.

The Army does not anticipate any adverse impacts to Federal or State protected species as a result of the Proposed Action. The RRAD is not aware of any federally protected species occurring on the installation. In Bowie County, the least tern (*Sternula antillarum*) and Louisiana Black Bear (*Ursus americanus luteolus*) are listed, but have not been documented on RRAD. In addition, a state rare plant species, the Arkansas meadow rue (*Thalictrum arkansanum*), is also listed for the county; however, no evidence of this species was observed during the planning level surveys (PLS) on the installation. The alligator snapping turtle (*Macrolemys temminckii*), a state-listed threatened species, was the only state sensitive species observed at RRAD during the PLS. The USFWS conducted a wetland inventory on RRAD from 1997 to 1998 and concluded that approximately 2,550 acres of wetlands and deepwater habitats occur on the installation. Site specific information on wetlands will be further determined for the Proposed Action.

We look forward to and welcome your participation in this study. Please respond at your earliest convenience. Please send your responses to:

Red River Army Depot
Attn: Mr. Ross Ramsauer
Bldg. 15, BRAC Office
100 Main Drive
Texarkana, TX 75503-5000

If you have any questions or concerns with regard to this request, please direct them to me at (903) 334-2594 or Ross.Ramsauer@us.army.mil. Thank you for taking the time to review this letter.

Sincerely,



Ross Ramsauer
BRAC Environmental Coordinator
Red River Army Depot

ATTACHMENT: Site location, Red River Army Depot



FAX TRANSMITTAL

DATE: 04/29/2009 Number of Pages (including cover):

TO: Name Mr. Ross Ramsauer
Organization Red River Army Depot Environmental Division
FAX Number (903) 334-4324

FROM: **TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**
Name Kirk Coulter
Division/Section VCP/CA Section, Team 1
Telephone Number 512-239-2572
FAX Number 512-239-2346
E-Mail Address kcoulter@tceq.state.tx.us

RE: Intergovernmental and Interagency Environmental Planning, dated April 8, 2009
Red River Army Depot (RRAD)
TCEQ SWR No. 67004
Hazardous Waste Permit No. HW-50178
Compliance Plan No. CP-50178

Dear Mr. Ramsauer:

The Texas Commission on Environmental Quality (TCEQ) appreciates the receipt of Red River Army Depot's (RRAD) and the Base Realignment and Closure (BRAC) Program's letter, dated April 8, 2009. The letter states that the U.S. Army proposes to construct a new Armed Forces Reserve Center (AFRC) on RRAD. An Environmental Assessment will be conducted to evaluate the environmental, cultural, and socioeconomic impacts associated with the proposed action.

Thank you for your cooperation. If you have any questions or need further assistance with this matter, please contact me in Austin at (512) 239-2572, mail code MC127.

Sincerely,

Kirk Coulter P.G.
Project Manager
VCP/CA Section
Remediation Division



May 6, 2009

Life's better outside.™

Commissioners

Peter M. Holt
Chairman
San Antonio

T. Dan Friedkin
Vice-Chairman
Houston

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Boerne

Philip Montgomery
Dallas

John D. Parker
Lufkin

Lee M. Bass
Chairman-Emeritus
Fort Worth

Carter P. Smith
Executive Director

Red River Army Depot
Attn: Ross Ramsauer
Bldg. 15, BRAC Office
100 Main Drive
Texarkana, TX 75503-5000

RE: Proposed Armed Forces Reserve Center RRAD (Bowie County)

Dear Mr. Ramsauer:

The Texas Parks and Wildlife Department (TPWD) has received the request for information regarding potential environmental concerns for the project referenced above as part of the scoping process for preparation of an Environmental Assessment (EA) for the project. The project involves development of approximately 15 acres within the Red River Army Depot (RRAD) for construction of a new Armed Forces Reserve Center, maintenance shop, multi-use classroom, parking areas, access road, and walkways.

TPWD offers the following recommendations to minimize impacts to fish and wildlife resources:

Site Development

Aerial photography indicates that the proposed site is completely wooded and that previously disturbed areas are located to the west, southwest, east, and southeast of the site.

- TPWD prefers that existing mature woodlands be preserved where possible, and that the proposed facilities be constructed in previously disturbed areas.
- If avoidance of woodland areas is not feasible, the EA should identify the species and age of vegetation that would be disturbed. The facilities should be designed to incorporate existing vegetation into the landscape plan to minimize impact to existing vegetation.
- If streams, drainage swales, or wetlands are identified on the proposed site, the site should be designed and operated to minimize impacts to the

Ross Ramsauer
Page 2
May 6, 2009

stream and wetlands. An unmaintained woodland buffer area of at least 50 ft wide along streams or drainages should be incorporated into the site plan to protect water quality by filtering runoff from the site, reducing runoff velocity, and reducing erosion potential. The wooded buffer area would also provide habitat for local wildlife such as birds and small mammals.

Facility Landscaping

Because native vegetation is adapted to the soil and climate of the area, it usually requires less maintenance and watering than introduced species. The disease tolerance of native vegetation provides longevity to the landscape without high cost. Mature trees and shrubs provide nesting, loafing, and forage habitat for birds and other wildlife.

- The proposed facilities should be carefully planned and constructed to avoid and preserve existing native vegetation. To eliminate or reduce the need for permanent irrigation, native trees, shrubs, grasses, and forbs should be incorporated into the landscape plan. These websites can offer help in finding appropriate native vegetation for the project area:
<http://www.tpwd.state.tx.us/huntwild/wild/wildscapes/> and
<http://tpid.tpwd.state.tx.us/>.

TPWD advises review and implementation of these recommendations and looks forward to receiving the EA. If you have any questions, please contact me at (512) 917-4155.

Sincerely,



Karen B. Hardin
Wildlife Habitat Assessment Program
Wildlife Division

kbh/13960

From: Sean_Edwards@fws.gov
Sent: Friday, May 08, 2009 12:06 PM
To: Ramsauer, Ross CIV USA
Subject: AFRC at Red River Army Depot

Mr. Ramsauer,

This responds to your April 8, 2009, letter requesting information of the proposed construction of a new Armed Forces Reserve Center to be constructed within the Red River Army Depot. The project would consist of structural facilities and pavement for the parking of privately-owned and military vehicles within a preferred site boundary identified within your letter.

You have indicated that an Environmental Assessment (EA) is being developed and request our input related to environmental concerns. Your letter correctly identifies the federally listed species potentially encountered in Bowie County, Texas and indicates that the RRAD is not aware of any of these species occurring on the installation. This conclusion is reasonable considering the lack of available habitat for the interior least tern and the close proximity to existing disturbance which is not supportive of the Louisiana black bear. It is therefore unlikely that federally listed species would be impacted by the proposed actions.

Your letter also indicates that approximately 2,550 acres of wetlands and waterbodies are known to occur on the installation but does not identify whether or not any of these features are found within the proposed new construction boundary. Your letter does indicate that this will be determined during the completion of the EA. We recommend that all impacts to wetlands or other waterbodies be avoided during the planning and construction of these new facilities. If impacts to wetlands are necessary, our office may be contacted by the Corps of Engineers for further input during the permitting process.

Please contact me if I may be of any further assistance.

Kind Regards,

Sean Patrick Edwards
Wildlife Biologist
U.S. Fish & Wildlife Service
Ecological Services Field Office
711 Stadium Drive, Suite 252
Arlington, TX 76011
817-277-1100
sean_edwards@fws.gov



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 63RD REGIONAL SUPPORT COMMAND
MOFFETT FIELD UNITED STATES ARMY RESERVE CENTER
153 DAILY ROAD
MOFFETT FIELD, CALIFORNIA 94035-1000

RECEIVED

JUL 31 2009

July 30, 2009

THC-ADMIN

Reply to the Attention of the Environmental Office

Mr. F. Lawrence Oaks
State Historic Preservation Officer
Texas Historical Commission
1511 Colorado Street
Austin, TX 78701

Dear Mr. Oaks,

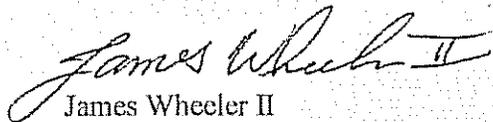
In a letter dated April 7, 2009, the Department of the Army (Army) informed you of our intention to construct an Armed Forces Reserve Center at the Red River Army Depot (RRAD), Bowie County, Texas. This action is pursuant to requirements of the Defense Base Closure and Realignment Act of 1990 (BRAC), amended by Title XXX of the National Defense Authorization Act for Fiscal Year 2002 (Public Law 107-107), as amended.

In conjunction with that effort and in accordance with the National Historic Preservation Act (NHPA) of 1966, as amended and its implementing regulation, 36 CFR 800, the Army has conducted a Cultural Resources Survey of the project area. The Survey identified site 41BW760 which consists of four foundations built by the Army and dating to 1943. The Army has determined that site 41BW760 is not eligible for listing in the National Register of Historic Places.

A copy of the draft report, "*Cultural Resources Survey for a Proposed Armed Forces Reserve Center at the Red River Army Depot, Texarkana, Bowie County, Texas*" is enclosed for your review and comments.

Based on the findings of the survey, the Army has determined that No Historic Properties will be affected by the proposed undertaking. In accordance with 36 CFR Part 800.4(d)(1), we respectfully request your concurrence with our determination. Your prompt attention to this matter would be greatly appreciated. If you have any questions pertaining to this report or its findings, please do not hesitate to contact the RRAD Environmental Coordinator, Ross Ramsauer, at (903) 334-2594 or me at (501) 771-7992.

Sincerely,



James Wheeler II
BRAC Environmental Coordinator
63D Regional Support Command

Enclosures

NO HISTORIC
PROPERTIES AFFECTED
PROJECT MAY PROCEED

By William A. Meade
for F. Lawrence Oaks
State Historic Preservation Officer
Date 8/26/09
Track# _____

DRAFT REPORT
ACCEPTABLE

Please submit ~~2~~ final report copies

by William A. Meade
for F. Lawrence Oaks
State Historic Preservation Officer
Date 8/26/09
Track# _____

AGEISS Inc.
1104 Roundhouse Dr.
Saginaw, TX 76131

RECORD OF CONVERSATION

Separate Conversation with: Robert Cast – Tribe
Historic Preservation Officer

Date: 25 August 2009

Company/Agency: Caddo Indian Tribe

Time: 1450

Project No.: W91278-06-D-0018 Task order 0003a

DCC No.:

Address: 5 Miles East @ Hwy 281 &152
Binger, OK 73009

Phone Number: (405) 656-2344

Personnel Present: Andrea Linder

SUBJECT: SECTION 106 CONSULTATION WITH THE CADDO INDIAN TRIBE FOR THE PROPOSED ARMED FORCES RESERVE CENTER ON RED RIVER ARMY DEPOT, TEXARKANA, TEXAS

SUMMARY

I spoke with the Tribe Historic Preservation Officer for the Caddo Indian Tribe, Mr. Robert Cast, to ensure he received the Phase I Cultural Resources Survey that was sent to him on July 30, 2009. He did confirm he had received it after a delay in their mail due to recently electing new officials. He stated he was still reviewing the project and would get in touch with me as soon as his review was complete to let me know if he had any comments, questions, or concerns. I ensured he had my phone numbers and email address.

On August 26, 2009 at 1617, Mr. Cast sent me an email (attached) stating the Caddo Tribe has no problem with the project proceeding as long as the SHPO has approved the location.



26 AUGUST 2009

DATE

ANDREA LINDER



26 August 2009

COMPLETED BY (TYPE NAME & SIGN)

DATE

From: Robert Cast [rcast@caddonation.org]

Sent: Wednesday, August 26, 2009 4:17 PM

To: 'Andrea Linder'

Subject: RE: Contact information

Andrea~ If the SHPO has approved the location, I have no problems with the project proceeding.

Robert Cast

Tribal Historical Preservation Officer

Caddo Nation

P.O. Box 487

Binger, OK 73009

Ph: (405) 656-2344 / 2345

Fx: (405) 656-2892

rcast@caddonation.org

From: Andrea Linder [mailto:andreal@ageiss.com]

Sent: Wednesday, August 26, 2009 10:42 AM

To: 'Robert Cast'

Subject: RE: Contact information

Thank you, Mr. Cast. Were you able to locate the information we sent to you on 7 April and 30 July regarding the 15-acre parcel on Red River Army Depot? If so, do you have any comments or questions at this time?

I'm happy to assist you in any way I can.
Thanks and have a GREAT day!

Andrea Linder

Environmental Scientist

AGEISS Inc.

Celebrating 21 Years!

(817) 913-5729 cell

(817) 306-5872 fax

andreal@ageiss.com

www.ageiss.com

From: Robert Cast [mailto:rcast@caddonation.org]

Sent: Wednesday, August 26, 2009 10:35 AM

To: Andrea Linder

Subject: Contact information

Andrea~ here is my email address and contact information.

Robert Cast

Tribal Historical Preservation Officer

Caddo Nation

P.O. Box 487

Binger, OK 73009

Ph: (405) 656-2344 / 2345

Fx: (405) 656-2892

rcast@caddonation.org

AGEISS Inc.
1104 Roundhouse Dr.
Saginaw, TX 76131

RECORD OF CONVERSATION

Separate Conversation with: Jimmy Arterberry – Tribe Historic Preservation Officer Date: 19 August 2009
Time: 1538
Company/Agency: Comanche Indian Tribe of Oklahoma Project No.: W91278-06-D-0018 Task order 0003a
DCC No.:
Address: 584 NW Bingo Rd.
Lawton, OK 73502
Phone Number: (580) 492-4988
Personnel Present: Andrea Linder

SUBJECT: SECTION 106 CONSULTATION WITH THE COMANCHE INDIAN TRIBE OF OKLAHOMA FOR THE PROPOSED ARMED FORCES RESERVE CENTER ON RED RIVER ARMY DEPOT, TEXARKANA, TEXAS

SUMMARY

I spoke with the Tribe Historic Preservation Officer for the Comanche Indian Tribe of Oklahoma, Mr. Jimmy Arterberry, to ensure he received the Phase I Cultural Resources Survey that was sent to him on July 30, 2009. He did confirm he had received it. I asked him if he has any questions or comments regarding the project and he stated they do not have any comments and he does not have a problem with the project continuing as proposed. He stated he would like to be notified in the event any cultural material is uncovered during construction. I agreed.



19 AUGUST 2009

DATE

ANDREA LINDER 

19 August 2009

COMPLETED BY (TYPE NAME & SIGN)

DATE

AGEISS Inc.
1104 Roundhouse Dr.
Saginaw, TX 76131

RECORD OF CONVERSATION

Separate Conversation with: Jamie Eskew – Tribe
Historic Preservation Officer

Date: 27 August 2009

Company/Agency: Kiowa Indian Tribe of Oklahoma

Time: 1425

Project No.: W91278-06-D-0018 Task order 0003a
DCC No.:

Address: Kiowa Way Hwy 9 West
Carnegie, OK 73015

Phone Number: (580) 654-2300

Personnel Present: Andrea Linder

SUBJECT: SECTION 106 CONSULTATION WITH THE KIOWA INDIAN TRIBE OF OKLAHOMA FOR THE PROPOSED ARMED FORCES RESERVE CENTER ON RED RIVER ARMY DEPOT, TEXARKANA, TEXAS

SUMMARY

I spoke with the Tribe Historic Preservation Officer for the Kiowa Indian Tribe of Oklahoma, Ms. Jamie Eskew, to ensure she received the Phase I Cultural Resources Survey that was sent to her on July 30, 2009. She did confirm she had received it. I asked her if she has any questions or comments regarding the project and she stated that she is still reviewing the report and would notify the signatory in writing if she had any comments or concerns regarding the project's location. To date, no comments have been received from the Kiowa Indian Tribe of Oklahoma and the 30 day review period is long expired.



27 AUGUST 2009

DATE

ANDREA LINDER



27 August 2009

COMPLETED BY (TYPE NAME & SIGN)

DATE

AGEISS Inc.
1104 Roundhouse Dr.
Saginaw, TX 76131

RECORD OF CONVERSATION

Separate Conversation with: Don Patterson –
President (through his Assistant)

Date: 27 August 2009

Company/Agency: Tonkawa Tribe of Indians of
Oklahoma

Time: 1415

Project No.: W91278-06-D-0018 Task order 0003a
DCC No.:

Address: 1 Rush Buffalo Rd.
Tonkawa, OK 74653
Phone Number: (580) 628-2561

Personnel Present: Andrea Linder

**SUBJECT: SECTION 106 CONSULTATION WITH THE TONKAWA TRIBE OF
INDIANS OF OKLAHOMA FOR THE PROPOSED ARMED FORCES RESERVE
CENTER ON RED RIVER ARMY DEPOT, TEXARKANA, TEXAS**

SUMMARY

I spoke with the Assistant of the President (also acting as the Tribe Historic Preservation Officer) for the Tonkawa Tribe of Indians of Oklahoma, Mr. Don Patterson, because he was in the middle of a meeting and she offered to ask him the questions I had due to several previous failed attempts to get in touch with him. I asked to ensure he received the Phase I Cultural Resources Survey that was sent to him on July 30, 2009. He did confirm he had received it. I asked him if he has any questions or comments regarding the project and he stated they do not have any comments and he does not have a problem with the project continuing as proposed. He stated he would like to be notified in the event any cultural material is uncovered during construction. I agreed.



27 AUGUST 2009

DATE

ANDREA LINDER



27 August 2009

COMPLETED BY (TYPE NAME & SIGN)

DATE

AGEISS Inc.
1104 Roundhouse Dr.
Saginaw, TX 76131

RECORD OF CONVERSATION

Separate Conversation with: Stratford Williams –
Tribe Historic Preservation Officer

Date: 19 August 2009

Company/Agency: Wichita Tribe

Time: 1455

Project No.: W91278-06-D-0018 Task order 0003a

DCC No.:

Address: 1 ½ Mile North on Hwy 281
Anadarko, OK 73005

Phone Number: (405) 247-2425

Personnel Present: Andrea Linder

SUBJECT: SECTION 106 CONSULTATION WITH THE WICHITA TRIBE FOR THE PROPOSED ARMED FORCES RESERVE CENTER ON RED RIVER ARMY DEPOT, TEXARKANA, TEXAS

SUMMARY

I spoke with the Tribe Historic Preservation Officer for the Wichita Tribe, Mr. Stratford Williams, to ensure he received the Phase I Cultural Resources Survey that was sent to him on July 30, 2009. He did confirm he had received it. I asked him if he has any questions or comments regarding the project and he stated they do not have any comments and he does not have a problem with the project continuing as proposed. He stated he would like to be notified in the event any cultural material is uncovered during construction. I agreed.



19 AUGUST 2009

DATE

ANDREA LINDER



19 August 2009

COMPLETED BY (TYPE NAME & SIGN)

DATE

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*Environmental Assessment for Construction of an
Armed Forces Reserve Center and
Implementation of BRAC 05 Recommendations at
Red River Army Depot*

APPENDIX B

WETLANDS INVESTIGATION REPORT

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APPENDIX B. WETLANDS INVESTIGATION REPORT

This appendix provides the Wetlands Investigation Report for the Red River Army Depot Proposed Action.

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**Pre-Jurisdictional Report for Base Realignment and Closure
(BRAC) Action at Red River Army Depot (RRAD), Texas
Located along North Boundary Patrol Road
and Immediately South of Highway 82**

May 2009

Acronyms/Abbreviations

AR	Army Regulation
AFRC	Armed Forces Reserve Center
CFR	Code of Federal Regulations
DOD	Department of Defense
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
HQDA	Headquarters Department of the Army
JD	Jurisdictional Determination
OBL	Obligate Wetland
OHWM	Ordinary High Water Mark
UPL	Upland
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USFWS	U.S. Fish and Wildlife Service

Background and Objective

The property site surveyed included approximately 15 acres of land and is located within Red River Army Depot along North Boundary Road and immediately south of Highway 82 and bound to the south by Bowie Avenue. The Army Reserves is proposing to construct a new AFRC (Armed Forces Reserve Center) that would occupy approximately 54,671 square feet of building space on this land. The area has been disturbed from previous uses and several remains of old infrastructure and foundations of a former Ordinance Training Center were observed in the southwest portion of the project area. This investigation is being done to evaluate the project lands to determine if waters of the U.S. exist on the site so that the Army can determine what portion of the land is developable by avoiding waters of the U.S. The project area surveyed included one intermittent stream located in the western portion of the proposed project site and several low depressions through out the southern portion of the property that are not associated with the stream water feature. Figure 1 shows where these water features are located within the project boundaries. The stream is an unnamed tributary of Big Creek that has several wetland pockets associated with the stream corridor. The stream averages 8 feet wide including wetlands associated with the corridor and has a Deciduous Forest and Shrub riparian corridor with a grassy understory. The low depressions through out the southern portion of the property appear to be features formed by former land uses. A vegetative survey of plants observed within the project area is shown in Appendix B. The functions of the observed water features are flood conveyance, flood storage, pollutant and nutrient filtration of upland runoff, and habitat for wildlife. Soils in the area consist of loamy clays and soil field notes can be found in Appendix C.

Department of Defense (DOD) policy states that wetlands will be protected to the extent possible. All activities that affect wetlands require an environmental analysis in accordance with AR 200-1, AR 200-2, and applicable federal and state laws and regulations. U.S. Army Corps of Engineers (USACE) permits are required under Section 10 of the Rivers and Harbors Act of 1899 prior to commencing any work or building any structures in a navigable water of the United States. Also, USACE permits are required under Section 404 of the Clean Water Act for the discharge of dredge or fill material into waters of the United States, including wetlands. The regulations established at Title 33 of the *Code of Federal Regulations* (CFR), Parts 320–330, prescribe the statutory authorities as well as general and special policies and procedures applicable to the review of applications for USACE permits. Before commencing any new work in waters of the United States, the USACE must be contacted and a permit obtained, as appropriate (Headquarters, Department of the Army [HQDA] 1995).

Executive Order 11990 requires that federal agencies minimize any significant action that contributes to the loss or degradation of wetlands shall be designed to enhance the natural value of the affected wetland. Department of the Army policy is to avoid adverse impacts on existing aquatic resources and offset adverse impacts that are unavoidable. In addition, the Army will strive to achieve a goal of no net loss of the value and functions of existing wetlands and will permit no overall net loss of wetlands on Army-controlled lands. The Department of the Army will also take a progressive approach toward protecting existing wetlands, rehabilitating degraded wetlands, restoring former wetlands, and creating wetlands in an effort to increase the quality and quantity of the Nation's wetland resources (HQDA 1995).

The objective of the Clean Water Act is to maintain and restore the chemical, physical, and biological integrity of the waters of the U.S. Section 404 of the Clean Water Act authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill material into waters of the U.S., including deepwater habitats, special aquatic sites, and wetlands. The USACE has the authority to make decisions regarding the jurisdictional status of waters of the U.S. Therefore, the USACE should be contacted prior to disturbance of any area investigated during this delineation effort. Areas of the subject property which are determined to be waters of the U.S. or which meet the wetland criteria outlined in the 1987 USACE Wetlands Delineation Manual (Environmental Laboratory 1987) should hereafter be considered waters of the U.S. until verified by the USACE.

Methods and Observations

Potential waters of the U.S. were delineated utilizing the three-parameter approach for a routine on-site determination as defined by the USACE (Environmental Laboratory 1987). The USACE manual defines wetlands as:

“Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

In order for an area to be considered jurisdictional by the USACE, it must have evidence of hydrophytic vegetation, hydric soils, and wetland hydrology. Under normal circumstances (site not altered in the last 5 years), the absence of any one of these three parameters will result in a non jurisdictional determination.

Interim Regional Supplement

On December 17, 2008 the USACE announced by public notice the publication and one-year trial implementation period of the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region to the 1987 Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region to the procedures for identifying and delineating wetlands that may be subject to regulatory jurisdiction under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act. Thirty days after the public notice, the Supplemental data forms and indicators must be used for any data collection for wetland delineations. The Atlantic and Gulf Coastal Plain Region consists of all or portions of the District of Columbia and the following states: Alabama, Arkansas, Delaware, Florida, Georgia, Illinois, Kentucky, Louisiana, Maryland, Mississippi, Missouri, New Jersey, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas and Virginia (Environmental Laboratory, 2008).

A routine delineation with an on-site inspection was conducted on April 23, 2009 by Kathy Mitchell of the Fort Worth Corps of Engineers Environmental Resources Section. Site photographs have been included as Appendix A. Plant communities and the dominant plant species were identified to determine the presence of hydrophytic vegetation. USDA plants

database: <http://www.plants.usda.gov/> was used to determine the indicator status of dominant plant species. Plants were classified as obligate wetland (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), or upland (UPL) species (See table in Appendix B Vegetation). Hydrophytic vegetation is prevalent in an area when the dominant species comprising the plant community or communities are typically adapted for life in saturated soil conditions.

Wetland hydrology was determined by on-site visual observation of geomorphic and hydrologic characteristics including inundation, saturation in the upper 12 inches, and sediment deposits. Soil profiles were examined to determine if hydric soil indicators were present. Additional soils information was obtained from the Soil Survey of Bowie County, Texas (U.S. Department of Agriculture 2004). Soil profiles observed during the April site visit are described in Appendix C.

Pedestrian surveys were conducted parallel to the unnamed stream segments to note average width, adjacent vegetation, adjacent community type, flow regime, water presence, bottom substrate, hydrophytic vegetation, ordinary high water mark (OHWM), and deposited material. The stream location was also compared to the U.S. Geological Survey, topographic quadrangles. Through examination of topographic quadrangle maps, soil maps, and other floodplain information available it was determined that the stream identified in the project area exhibits a surface connection to navigable waters of the U.S. Flow regime was determined based on pedestrian survey of the stream. The unnamed tributary drains to Big Creek which drains to Wright Patman Lake which is a navigable water of the U.S.

Summary and Conclusion

Water features in the project area have been identified and delineated. Water features identified included 1 intermittent stream that flows north to south on the western portion of the project area and with several wetland pockets along the stream corridor. Waters of the U.S. within the project area total 1,425 total linear feet (11,400 ft²) of intermittent stream. This figure includes the wetland pockets associated with the stream corridor. Several low depression areas not associated with the stream corridor were also observed and did have some wetland characteristics, but field data and other available information determined that these areas are not Waters of the U.S. In conclusion it is estimated that all Waters of the U.S. including wetlands associated with the stream corridors can be avoided by forming a 12 foot buffer on either side of the intermittent stream as shown in figure 2. The low depression areas are not shown on figure 2 because they are not Waters of the U.S. Avoiding the Unnamed Tributary of Big Creek and its associated wetlands by using the 12 foot buffer on either side of the stream leaves approximately 11.75 acres for development.

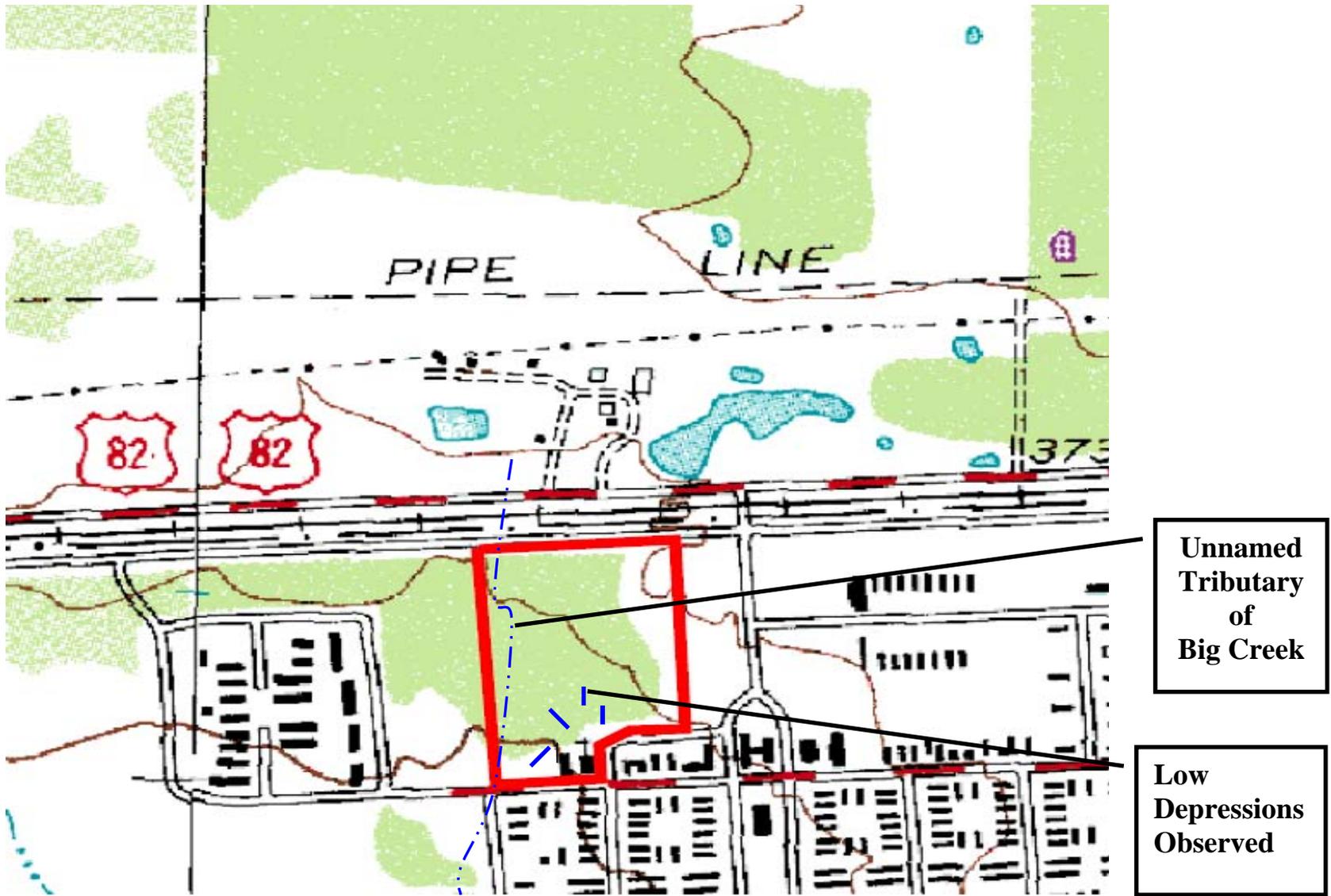
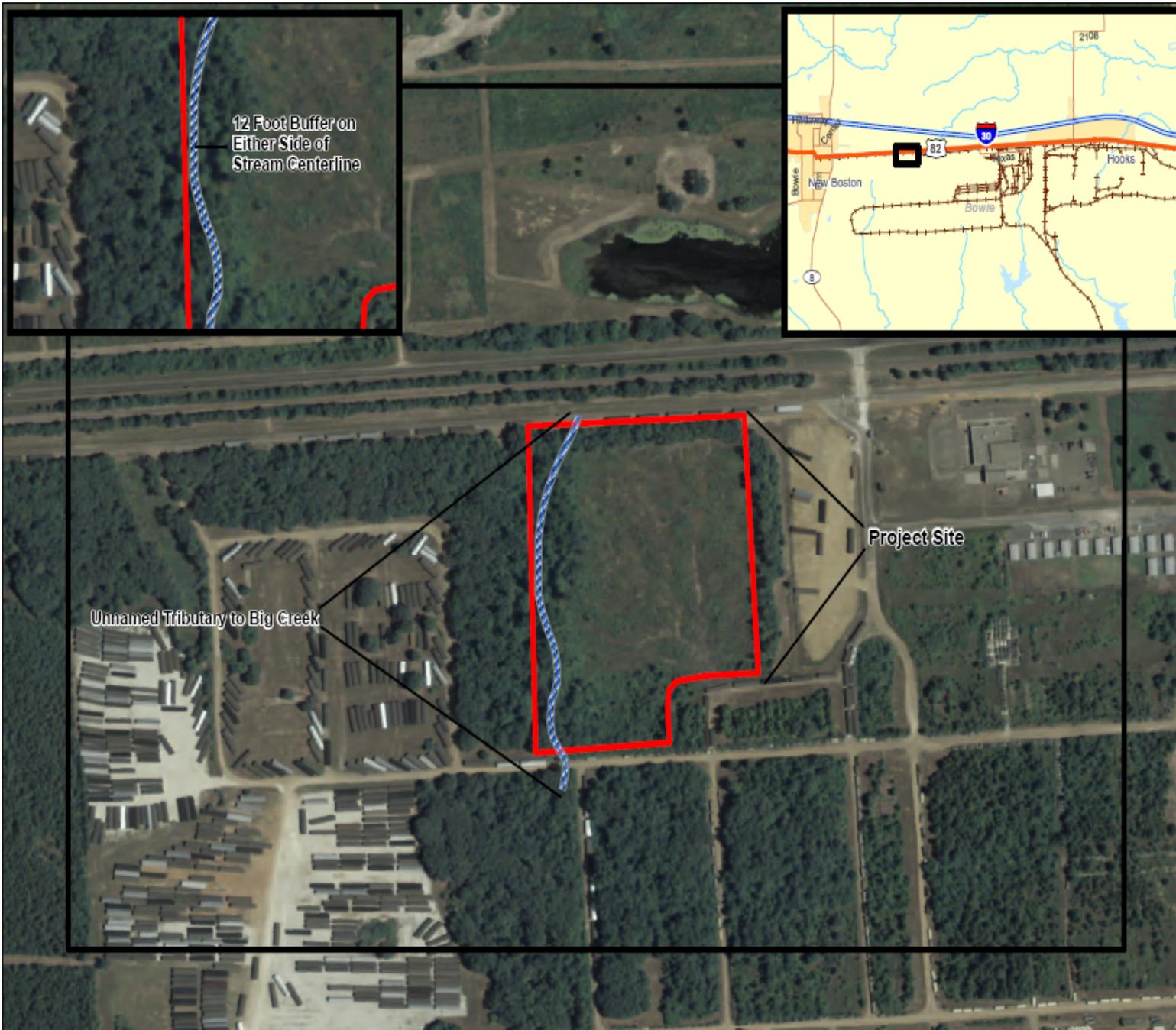


FIGURE 1



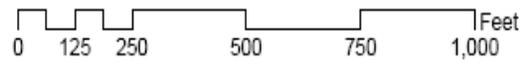
Legend

-  Unnamed Tributary Big Creek
-  Stream Buffer
-  Project Site
-  Reference

Landsat 2003 Imagery
Prepared by Technical Services

Red River Ammunition Depot

Project Site Figure 2



**US Army Corps
of Engineers
Fort Worth District**

Disclaimer - These data are provided by the US Army Corps of Engineers as a representation of information gathered from multiple sources utilizing multiple methods. These data should be used only for the intended representation and not for any other purpose. No guarantee is made by the U.S. Army Corps of Engineers regarding data accuracy, completeness, or suitability to a particular use, and may be updated without notification.

APPENDIX A

Site Photos



North End of the site at the Unnamed Tributary Standing on North Boundary Road and Facing South



Unnamed Tributary walking south approximately one quarter of the way to Bowie Road.



Walking south along wetland pocket along the corridor of the unnamed tributary.



Walking south and about Halfway to Bowie Road a wetland pocket along the corridor of the unnamed tributary.



Unnamed tributary walking south approximately three quarter of the way to Bowie Road.



Southern end of the project boundary in the Unnamed Tributary just before the Bowie Road culvert facing north.



Standing on Bowie Road culvert looking south this is where the tributary discharges from the project boundary.



Isolated depression in the southern portion of the site.



Isolated depression in the south central portion of the project site.



Isolated depression within the southern portion of the project area.



Isolated depression within the southern portion of the project area.

APPENDIX B
VEGETATION OBSERVED

Plant Species Observed

Species	Common Name	Growth Habitat	Indicator Status
<i>Alternanthera philoxeroides</i>	alligatorweed	H	OBL
<i>Ambrosia artemisiifolia</i>	annual ragweed	H	FACU
<i>Baccharis halimifolia</i>	eastern baccharis	H	FAC
<i>Callicarpa americana</i>	American beautyberry	S	FACU
<i>Campsis radicans</i>	trumpet creeper	V	FAC
<i>Carya spp.</i>	hickory	T/S	FAC
<i>Cynodon dactylon</i>	Bermuda grass	H	FACU+
<i>Echinochloa crus-galli</i>	barnyard grass	H	FACW
<i>Festuca arundinacea</i>	tall fescue	H	FACU
<i>Fraxinus pennsylvanica</i>	green ash	T/S	FACW
<i>Juncus spp.</i>	rushes	H	FACW+
<i>Ligustrum sinense</i>	Chinese privet	S	FAC
<i>Paspalum notatum</i>	bahia grass	H	FAC
<i>Polygonum hydropiperoides</i>	swamp smartweed	H	OBL
<i>Pontederia cordata</i>	pickerelweed	H	OBL
<i>Potamogeton pusillus</i>	small pondweed	H	OBL
<i>Quercus michauxii</i>	swamp chestnut oak	T	FACW
<i>Quercus phellos</i>	willow oak	T	FACW-
<i>Salix nigra</i>	black willow	T	OBL
<i>Schizachyrium scoparium</i>	little bluestem	H	FACU+
<i>Scirpus spp</i>	bulrush	H	OBL
<i>Smilax spp.</i>	greenbrier	H/V	FAC
<i>Solidago altissima</i>	goldenrod	S	FACU+
<i>Sorghastrum nutans</i>	Indian grass	H	FACU
<i>Sorghum halepense</i>	Johnson grass	H	FACU
<i>Toxicodendron radicans</i>	poison ivy	V	FAC

Legend

T - Tree	FAC - Facultative
S- Shrub	FACU- Facultative Upland
H- Herb	FACW- Facultative Wetland
V- Vine	UPL- Upland
	OBL- Obligate

Source: USDA plants database

APPENDIX C

(Soil Observations from field visit)

Soil profiles from the field visit:

Soils observed in the field were loamy clays:

1-9 inches very friable with few fine roots, and when these soils were compared to a Munsell color chart they appeared to be a 10YR 3/2

9-16 inches Munsell color comparison was a 10YR 5/3

This layer exhibited mottles that were distinct brownish gray that were 10YR6/2 on Munsell chart.

This layer also exhibited mottles that were faint yellowish brown 10YR 5/5 on Munsell chart.

The Soil Survey of Bowie County, Texas (U.S. Department of Agriculture 2004) map sheet number 40 indicates that soils in the area are Annona series. These soils are often found to be poorly drained soils and usually have a water table 14 to 27 inches below the surface late in winter and early in spring.

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*Environmental Assessment for Construction of an
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APPENDIX C

ECONOMIC IMPACT FORECAST SYSTEM REPORT

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APPENDIX C. ECONOMIC IMPACT FORECAST SYSTEM REPORT

This appendix provides the Economic Impact Forecast System Report for the Red River Army Depot Proposed Action.

EIFS REPORT

PROJECT NAME

Red River Army Depot AFRC EA

STUDY AREA

05091 Miller, AR
48037 Bowie, TX

FORECAST INPUT

Change In Local Expenditures	\$13,250,750
Change In Civilian Employment	0
Average Income of Affected Civilian	\$0
Percent Expected to Relocate	100
Change In Military Employment	0
Average Income of Affected Military	\$0
Percent of Military Living On-post	0

FORECAST OUTPUT

Employment Multiplier	2.83	
Income Multiplier	2.83	
Sales Volume - Direct	\$13,250,750	
Sales Volume - Induced	\$24,248,880	
Sales Volume - Total	\$37,499,630	1.26%
Income - Direct	\$2,829,076	
Income - Induced	\$5,177,208	
Income - Total (place of work)	\$8,006,284	0.32%
Employment - Direct	81	
Employment - Induced	148	
Employment - Total	229	0.35%
Local Population	0	
Local Off-base Population	0	0%

RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	8.49 %	6.93 %	3.22 %	2.61 %
Negative RTV	-9.13 %	-7.87 %	-6.49 %	-0.8 %

***** End of Report *****