FINAL

ENVIRONMENTAL ASSESSMENT
ESTABLISHMENT OF AN ARMED FORCES RESERVE CENTER (AFRC)
AMARILLO, TEXAS
BRAC 2005

Prepared for:

Philip L. Hanrahan
Brigadier General, USAR
Commanding

Prepared by:

U.S Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, AL 36628

January 2009

FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT
ESTABLISHMENT OF AN ARMED FORCES RESERVE CENTER
(AFRC)
AMARILLO, TEXAS
BRAC 2005

The Defense Base Closure and Realignment (BRAC) Commission, in response to the Defense Base Closure and Realignment Act of 1990, as amended, recommended closing the Blucher S. Tharp Memorial (Tharp) U.S. Army Reserve Center (USARC) in Amarillo, Texas and relocation to a new Armed Forces Reserve Center (AFRC) in Amarillo, if the Army is able to acquire suitable land for the construction of the facilities.

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

Proposed Action

The Proposed Action is to establish a new 600-member AFRC at a site in northeast Amarillo to accommodate the units to be relocated from the Tharp USARC. A new 102,023-square foot (SF) building; 4,002 SF Vehicle Maintenance Shop; a 2,565 SF Organization Storage Unit; and 8,973 SF parking lot would be constructed. The new facility would provide administrative, assembly, educational, storage, storage vault, weapons simulators and physical fitness training facilities to accommodate three U.S. Army Reserve (USAR) and up to three Texas Army National Guard (ARNG) units from Amarillo, Pampa and Hale County, Texas, should the state decide to relocate these units. The new AFRC is proposed to be constructed on a 25-acre parcel near the intersection of NE 24th Avenue and Eastern Street.

Alternatives Considered

General siting criteria include consideration of compatibility between the functions to be performed and the land use designation for the site, adequacy of the site for the function required, proximity to related activities, distance from incompatible activities, availability and capacity of roads, efficient use of property, development density, potential future mission requirements, and special site characteristics. Specific criteria require that the site is a minimum size of 12 acres, rectangular-shaped parcel and has minimum side lengths of 500 feet. The latter is required to ensure sufficient size to comply with anti-terrorism/force protection (AT/FP) requirements for 200-foot wide setbacks.

Two other alternative sites were identified as potentially viable sites through an independent Available Site Identification and Validation (ASIV) study. These sites are located approximately 1 mile east and 6.5 miles southeast of the preferred site. Similar conditions exist at these other two sites, and these sites will be carried forward for detailed evaluation. However, if, for some reason the preferred site can not be obtained, supplemental NEPA documentation would be required to fully evaluate the use of either of these two alternative sites. Three other sites were

identified by the ASIV team, but were eliminated due to the excessive costs required to acquire the sites (i.e., 2.5 to 7 times the price of the preferred site).

No other action alternatives were considered during the preparation of this EA. Other schedules, expansion of the existing facility, and leasing of commercial or private facilities were considered, but eliminated from detailed analyses.

The No Action Alternative has also been carried forward throughout the EA to serve as a baseline for comparison to the other alternatives.

Factors Considered In Determining That No Environmental Impact Statement is Required

Implementation of the Proposed Action at the preferred location would result in minor, permanent effects on vegetation, wildlife, soils, aesthetics, and land use. The Proposed Action would cause the permanent conversion of up to 12 acres of disturbed grassland to hard surfaces and buildings and remove this land from further biological productivity and other uses. Because the preferred location has been disturbed by past and current agricultural activities, and, thus, provides limited wildlife habitat, the loss of 12 acres would be considered insignificant. In addition, the remaining 13 acres would be removed from potential private development or agricultural production. There are currently no plans for these additional acres, so the existing natural conditions would remain the same in the foreseeable future. The soils at the preferred site (and throughout Potter County) are considered prime and unique farmland soils; the loss of 12 acres would not be a significant impact, given the vast amount of acreage containing the same soil type found within the project region.

Temporary increases of vehicle traffic would be expected during the construction period, particularly along Fitch Highway and NE 24th Avenue, as construction crews commute to the project site. Permanent increases in traffic would occur along these roads during the operation of the AFRC; however, most of these increases would occur during training activities, which would be scheduled primarily on weekends. Daily increases in vehicle traffic would be expected to be less than 15 vehicle trips per weekday and up to 100 vehicle trips on the training weekends. Therefore, the operation of the AFRC would result in minor to moderate long-term increases in traffic.

In addition, temporary and insignificant adverse effects on air quality, noise, soil erosion/sedimentation, and utilities would occur during the construction period. No violations of the region's air or water quality standards would be expected. Emissions expected to be generated during construction are well below the *de minimis* thresholds, even though Potter County is considered in attainment for all priority pollutants. Best management practices would be implemented to ensure stormwater during and after construction is controlled and downstream sedimentation is either eliminated or is negligible.

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

Slight benefits for local and regional employment and personal income would be expected during the construction period; however, since the majority of the realigned units would come from less than 6 miles away, no long-term significant adverse impacts on the region's economy would be expected to occur.

The cumulative effects of the Proposed Action and other planned or reasonably foreseeable projects in the project region would also be considered insignificant. The City of Amarillo currently has no plans for development or improvements at the preferred site or surrounding area. Local expenditures required by the proposed AFRC and other construction projects would result in moderate beneficial impacts in the project region within the next 3 years. The City of Amarillo would easily accommodate the additional employment, sales volumes, income and taxes generated by these activities.

Conclusions

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

Public Comment

Interested parties were invited to review and comment on the EA and draft FNSI for a period of 30 days beginning on 23 November 2008. A Notice of Availability was published in the *Amarillo Globe News*. Copies of the EA and draft FNSI were made available for review at the following public libraries and on the internet at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm. Letters were received from the U.S. Environmental Protection Agency (EPA) and the Texas Park and Wildlife Department (TPWD). EPA concurred with the analyses and conclusions presented in the EA. TPWD iterated their comments made in a previous concurrence letter to emphasize the need to use native plant species in landscaping plans and to avoid impacts, to the extent practicable to the state-listed Texas horned lizard (*Phrynosoma cornutum*).

Central Library
413 E 4th,
Amarillo, TX 79101
(806) 378-3054

East Branch
2232 E 27th
Amarillo, TX 79103
(806) 342-1589

North Branch
1500 NE 24th
Amarillo, TX 79107
(806) 381-7931

Southwest Branch
6801 W 45th
Amarillo, TX 79109
(806) 359-2094

Northwest Branch
6100 W 9th
Amarillo, TX 79106
(806) 359-2035

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

25 January 2009
Date Signed

FINAL

ENVIRONMENTAL ASSESSMENT
ESTABLISHMENT OF AN ARMED FORCES RESERVE CENTER (AFRC)
AMARILLO, TEXAS
BRAC 2005

Prepared by:

U.S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT

BYRON G. JØRNS
Colonel, Corps of Engineers
Commanding

Approved by:

PHILIP L. HANRAHAN
Brigadier General, USAR
Commanding

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

TITLE OF PROPOSED ACTION ALTERNATIVE: Establishment of an Armed Forces Reserve Center (AFRC), Amarillo, Texas, BRAC 2005

AFFECTED JURISDICTION: Potter County, Texas

PREPARED BY: Byron G. Jorns, Colonel, Corps of Engineers, Mobile District, Commanding

TECHNICAL ASSISTANCE FROM: Gulf South Research Corporation

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

ABSTRACT: This Environmental Assessment (EA) addresses the potential effects of the proposed establishment of a new Armed Forces Reserve Center (AFRC) in Amarillo, Texas, as directed by the Defense Base Closure and Realignment Commission's recommendation. The Blucher S. Tharp Memorial U.S. Army Reserve Center (USARC) would be closed and the units relocated to the new AFRC. The Proposed Action Alternative would accommodate up to 600 military and civilian personnel at the new AFRC during training activities if all U.S. Army Reserve (USAR) units assigned to the AFRC conduct training exercise simultaneously. To accommodate the proposed AFRC, a new 102,023-square foot building is proposed to be constructed. In addition, barracks, multi-use classrooms, parking, vehicle and equipment maintenance, stormwater retention ponds and storage facilities would also be constructed. The construction would permanently convert approximately 12 acres of disturbed grassland (pasture) to hard surfaces. No long-term or significant impacts on protected species, cultural resources, water quality, or socioeconomic resources would occur as a result of the Proposed Action Alternative. Temporary and insignificant impacts on air quality and noise would occur during construction activities. Alteration of 12 acres of Pullman clay loamy soils would be considered an insignificant, but long-term impact on prime or unique farmland soils. Traffic patterns at the new site would be slightly altered by the proposed construction and operation of the AFRC. Two other alternate sites were identified and evaluated during the preparation of the EA.

REVIEW PERIOD: The EA and draft Finding of No Significant Impact (FNSI) were made available for public review for a period of 30 days, beginning on 23 November 2008. A Notice of Availability was published in the *Amarillo Globe News.* Copies of the EA and draft FNSI were available for review at the following Amarillo Public Libraries: Central Library, 413 E 4th, Amarillo, TX 79101; East Branch, 2232 E 27th, Amarillo, TX 79103; North Branch,1500 NE 24th, Amarillo, TX 79107; Southwest Branch, 6801 W 45th, Amarillo, TX 79109; and Northwest Branch, 6100 W 9th, Amarillo, TX 79106. The EA and draft FNSI were also available for review via the internet at the following URL: http://www.hqda.army.mil/acsim/brac/env_ea_review.htm. Letters were received from the U.S. Environmental Protection Agency (EPA) and the Texas Park and Wildlife Department (TPWD). EPA concurred with the analyses and conclusions presented in the EA. TPWD iterated their comments made in a previous concurrence letter to emphasize the need to use native plant species in landscaping plans and to avoid impacts, to the extent practicable to the state-listed Texas horned lizard (*Phrynosoma cornutum*).

THIS PAGE LEFT INTENTIONALLY BLANK

EXECUTIVE SUMMARY
ENVIRONMENTAL ASSESSMENT
ESTABLISHMENT OF AN
ARMED FORCES RESERVE CENTER (AFRC)
AMARILLO, TEXAS
BRAC 2005

Introduction: In accordance with the National Environmental Policy Act of 1969 (NEPA), the United States (U.S.) Army Corps of Engineers (USACE), Mobile District has prepared this Environmental Assessment (EA) for the establishment of an Armed Forces Reserve Center (AFRC) in Amarillo, Potter County, Texas. The new AFRC would accommodate troops to be relocated from the Blucher S. Tharp Memorial (Tharp) U.S. Army Reserve Center (USARC), which is scheduled to be closed. This EA discusses the potential environmental effects of the proposed construction and operation of the AFRC on the human and natural environment at and surrounding the preferred site in Amarillo.

Background/Setting: The Tharp USARC was constructed in 1957 and contains approximately 11,732 square feet of training and maintenance space on 4.13 acres. The Tharp USARC is located in southwest Amarillo and is surrounded by commercial development on all four sides, leaving no room for expansion. The preferred site for the establishment of a new AFRC is located approximately 6 miles northeast of the Tharp USARC. This site has been used in the past for both crop production and grazing. Surrounding development includes private warehouses, residential areas, pasture/agricultural fields, and City of Amarillo water supply/storage facilities.

Proposed Action Alternative: The establishment of a new AFRC in Amarillo, Texas is required by the Defense Base Closure and Realignment Act of 1990 (BRAC), as amended, and the recommendations made by the Defense Base Closure and Realignment Commission (BRAC Commission). The BRAC Commission recommended the closure of the Tharp USARC. Three suitable sites were identified for the establishment of the AFRC in Amarillo, Texas and one was identified as the preferred site. Establishment of the AFRC at this preferred site would require the purchase of up to 25 acres from private ownership.

The new AFRC would comprise approximately 108,590 square feet of total building space, including barracks, multi-use classrooms, and maintenance and storage facilities. An additional 8,973 square feet would be developed into parking lots. The entire facility would require approximately 12 acres; stormwater retention ponds would also be constructed within these 12 acres. No additional expansion to or demands on training areas or airspace would be required for the Proposed Action Alternative. No additional weapons systems would be associated with the establishment or operation of the AFRC.

Alternatives: 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. Specific criteria require that the site is a minimum size of 12 acres, a rectangular-shaped parcel and has a minimum side length of 500 feet. The latter is required to ensure sufficient size to comply with anti-terrorism/force protection (AT/FP) requirements of 200-foot wide setbacks.

Two other alternative sites were identified as potentially viable sites. These sites are located approximately 1 mile east and 6.5 miles southeast of the preferred site. Similar conditions exist at these other two sites, and these sites are carried forward for detailed evaluation. However, if, for some reason the preferred site cannot be obtained, supplemental NEPA documentation would be required to fully evaluate the use of either of these two alternative sites.

Other alternatives relative to scheduling, using other existing facilities, or leasing space from commercial/private entities are not considered viable and, thus, were not addressed in the EA. Use of off-site leased space to meet the AFRC's requirements would involve several major drawbacks. AT/FP policies specify certain facilities characteristics, such as physical security features. Use of leased space in the private sector would be expected to hinder these protection policies, and would adversely affect command and control functions, result in higher operational costs, and impair efficient use of resources. The existing facility is 51 years old and provides only 11,732 square feet of building space, which results in a utilization rate of 230 percent.

Environmental Consequences: Construction of the AFRC facility at the proposed location would permanently convert up to 12 acres of disturbed grassland to impervious surfaces. Construction would cause temporary and insignificant increases of noise and air emissions. Ambient conditions would return upon completion of the construction activities. Traffic would be slightly increased on surface streets in and around the preferred sites. The daily increase is expected to be less than 0.2 percent, however; weekend traffic could increase by 1.5 percent over the average daily vehicle trips. The loss of productivity on 12 acres of prime and unique soils would be a permanent, but insignificant, impact, since the Pullman clay loam soils are very common throughout Potter County. Socioeconomic resources would experience beneficial, but insignificant, long-term impacts due to the expenditures associated with the construction and operation of the AFRC. No impacts would occur on cultural resources, protected species, or water quality and supply. Insignificant impacts on wildlife habitat and populations, aesthetic and visual resources, and utilities would occur as a result of the establishment of the AFRC at the proposed site.

Best Management Practices: All temporarily disturbed sites would be re-seeded as soon as practicable after completion of the construction activities to control erosion and sedimentation. For those areas that would not be landscaped or routinely maintained, native vegetation seeds should be used for re-seeding activities, in accordance with Section 7(a)(1) of the Endangered Species Act (ESA). A Stormwater Pollution Prevention Plan (SWPPP) and Notice of Intent would need to be prepared and submitted prior to construction. The SWPPP would identify best management practices (BMP) to be implemented for erosion and sedimentation control during construction. If straw bales are used, weed seed-free straw should be used to avoid introduction or expansion of invasive or noxious weeds.

Wetting solutions, including water, should be applied to disturbed soils within the construction site to control fugitive dust. All construction equipment and material should be properly maintained and stored to reduce air emissions and avoid potential spills of hazardous materials.

If the breeding/nesting season for migratory birds cannot be avoided during the initial grubbing and clearing of the site, breeding bird pairs and nests would need to be identified and avoided, in accordance with the Migratory Bird Treaty Act.

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

THIS PAGE LEFT INTENTIONALLY BLANK

TABLE OF CONTENTS

1.0 Purpose, Need, and Scope 1

1.1 Introduction 1
1.2 Purpose and Need 1
1.3 Scope 2
1.4 Public Involvement 2
1.5 Regulatory Framework 4

2.0 Proposed Action 9

2.1 Introduction 9
2.2 Force Structure 9
2.3 Garrison Facilities 11
2.4 Training Facilities and Airspace 11
2.5 Weapon Systems 11
2.6 Schedule 11

3.0 Alternatives 13

3.1 Introduction 13
3.2 Development of Alternatives 13
3.2.1 Means to Accommodate Realigned Units 13
3.2.2 Siting of New Construction 13
3.3.2.1 Alternative Site 1 14
3.3.2.2 Alternative Site 2 14
3.3 Alternatives Eliminated from Further Consideration 16
3.3.1 Use of Leased Facilities to Accommodate Relocated Units 16
3.3.2 Use of Existing Tharp USARC to Accommodate Units 16
3.3.3 Other Construction Sites 16
3.3.4 Schedule 16
3.4 No Action Alternative 16

4.0 Affected Environment and Consequences 19

4.1 Introduction 19
4.2 Land Use 20
4.2.1 Affected Environment 20
4.2.1.1 Proposed Action Alternative 20
4.2.1.1.1 Regional Setting 20
4.2.1.1.2 Installation Land Use 20
4.2.1.1.3 Current and Planned Development 20
4.2.1.2 Alternative Site 1 20
4.2.1.3 Alternative Site 2 20
4.2.2 Environmental Consequences 20
4.2.2.1 Proposed Action Alternative 20
4.2.2.2 Alternative Site 1 21
4.2.2.3 Alternative Site 2 21
4.2.2.4 No Action Alternative 21
4.3 Aesthetics and Visual Resources 21
4.3.1 Affected Environment 21
4.3.2 Environmental Consequences 21
4.3.2.1 Proposed Action Alternative 21
4.3.2.2 Alternative Site 1 21

4.3.2.3 Alternative Site 2 21
4.3.2.4 No Action Alternative 22
4.4 Air Quality 22
4.4.1 Affected Environment 22
4.4.2 Environmental Consequences 23
4.4.2.1 Proposed Action Alternative 23
4.4.2.2 Alternative Site 1 24
4.4.2.3 Alternative Site 2 24
4.4.2.4 No Action Alternative 24
4.5 Noise 25
4.5.1 Affected Environment 25
4.5.1.1 Proposed Action Alternative 26
4.5.1.2 Alternative Site 1 26
4.5.1.3 Alternative Site 2 26
4.5.2 Environmental Consequences 26
4.5.2.1 Proposed Action Alternative 26
4.5.2.2 Alternative Site 1 28
4.5.2.3 Alternative Site 2 28
4.5.2.4 No Action Alternative 28
4.6 Soils 28
4.6.1 Affected Environment 28
4.6.2 Environmental Consequences 28
4.6.2.1 Proposed Action Alternative 28
4.6.2.2 Alternative Site 1 30
4.6.2.3 Alternative Site 2 30
4.6.2.4 No Action Alternative 30
4.7 Water Resources 30
4.7.1 Affected Environment 30
4.7.1.1 Surface Water 30
4.7.1.1.1 Proposed Action Alternative 30
4.7.1.1.2 Alternative Site 1 30
4.7.1.1.3 Alternative Site 2 30
4.7.1.2 Hydrogeology/Groundwater 30
4.7.1.3 Floodplain 31
4.7.2 Environmental Consequences 31
4.7.2.1 Proposed Action Alternative 31
4.7.2.2 Alternative Site 1 31
4.7.2.3 Alternative Site 2 31
4.7.2.4 No Action Alternative 31
4.8 Biological Resources 33
4.8.1 Affected Environment 33
4.8.1.1 Vegetation 33
4.8.1.2 Wildlife 33
4.8.1.3 Sensitive Species 34
4.8.1.3.1 Federal 34
4.8.1.3.2 State 34
4.8.2 Environmental Consequences 35
4.8.2.1 Proposed Action Alternative 35
4.8.2.2 Alternative Site 1 35
4.8.2.3 Alternative Site 2 35
4.8.2.4 No Action Alternative 35

4.9 Cultural Resources 35
4.9.1 Affected Environment 35
4.9.1.1 Cultural Overview 36
4.9.2 Environmental Consequences 36
4.9.2.1 Proposed Action Alternative 36
4.9.2.2 Alternative Site 1 36
4.9.2.3 Alternative Site 2 37
4.9.2.4 No Action Alternative 37
4.10 Socioeconomic Resources 37
4.10.1 Affected Environment 37
4.10.1.1 Population 37
4.10.1.2 Income and Employment 37
4.10.1.3 Housing 40
4.10.1.4 Environmental Justice 40
4.10.1.5 Protection of Children 41
4.10.2 Environmental Consequences 41
4.10.2.1 Proposed Action Alternative 41
4.10.2.2 Alternative Site 1 41
4.10.2.3 Alternative Site 2 41
4.10.2.4 No Action Alternative 41
4.11 Transportation 41
4.11.1 Affected Environment 41
4.11.1.1 Proposed Action Alternative 42
4.11.1.3 Alternative Site 2 42
4.11.2.1 Proposed Action Alternative 42
4.11.2.2 Alternative Site 1 44
4.11.2.3 Alternative Site 2 44
4.11.2.4 No Action Alternative 44
4.12 Utilities 44
4.12.1 Affected Environment 44
4.12.1.1 Potable Water Supply 44
4.12.1.1.1 Proposed Action Alternative 45
4.12.1.1.2 Alternative Site 1 45
4.12.1.1.3 Alternative Site 2 45
4.12.1.2 Wastewater System 45
4.12.1.2.1 Proposed Action Alternative 45
4.12.1.2.2 Alternative Site 1 45
4.12.1.2.3 Alternative Site 2 45
4.12.1.3 Stormwater System 45
4.12.1.3.1 Proposed Action Alternative 45
4.12.2 Consequences 46
4.12.2.1 Proposed Action Alternative 46
4.12.2.2 Alternative Site 1 46
4.12.2.3 Alternative Site 2 46
4.12.2.4 No Action Alternative 46
4.13 Hazardous and Toxic Substances 46
4.13.1 Affected Environment 46
4.13.1.1 Proposed Action Alternative 46
4.13.1.2 Alternative Site 1 46
4.13.1.3 Alternative Site 2 47
4.13.2 Environmental Consequences 47

4.13.2.1 Proposed Action Alternative 47
4.13.2.2 Alternative Site 1 47
4.13.2.3 Alternative Site 2 48
4.13.2.4 No Action Alternative 48
4.14 Cumulative Effects Summary 48
4.15 Best Management Practices 48
4.15.1 Vegetation and Wildlife 49
4.15.2 Air Quality 49
4.15.3 Water Resources 49
4.14.4 Cultural Resources 49
4.15.5 Hazardous and Toxic Substances 49

5.0 Findings and Conclusions 51

5.1 Findings 51
5.1.1 Consequences of the Proposed Action Alternative 51
5.1.2 Consequences of the No Action Alternative 52
5.2 Conclusions 52

6.0 List of Preparers 53

7.0 References 55

8.0 Acronyms and Abbreviations 59

LIST OF TABLES

Table 1-1. Summary of Relevant Regulations Including Potential Permits or Licensing Requirements 4
Table 2-1. Proposed Construction Projects 11
Table 2-2. Tentative Dates for Completion of Major Items Associated with Relocation of Units to Amarillo AFRC, Texas 12
Table 4-1. National Ambient Air Quality Standards 22
Table 4-2. Potter County Total Air Emissions (tons/year) from Construction Activities vs. *de minimis* Levels 24
Table 4-3. A-Weighted (dBA) Sound Levels of Construction Equipment and Modeled Attenuation at Various Distances[1] 26
Table 4-4. Federally Listed Species Potentially Occurring within Potter County, Texas 34
Table 4-5. Population and Race 37
Table 4-6. 2006 Per Capita Personal Income (PCPI) 38
Table 4-7. Total Personal Income 38
Table 4-8. Total Number of Jobs and Employment 39
Table 4-9. 2005 Poverty and Median Income by County 40
Table 4-10. Housing Units 40
Table 5-1. Summary Matrix of Potential Impacts 51

LIST OF FIGURES

Figure 1-1. Vicinity Map 3
Figure 2-1. Project Site Map—Preferred Site 10
Figure 3-1. Sites Eliminated from Consideration 15
Figure 4-1. Project Site with 65dBA Construction Noise Contour 27
Figure 4-2. Project site Soils Map 29
Figure 4-3. Major Streams/waterbodies near the Preferred Site 32
Figure 4-4. Transportation Map 43

LIST OF PHOTOGRAPHS

Photograph 3-1. Alternative Site 1; View Toward the Southwest from Northeast Corner of the Parcel 14
Photograph 3-2. Alternative Site 2; View Toward West from Northeast Corner of the Parcel ... 14
Photograph 4-1. Preferred Site; View towards Northwest from Southeast Corner of Parcel 21
Photograph 4-2. Preferred Site. View Toward the South from Northwest Corner 33
Photograph 4-3. Preferred Site. View Toward the Northwest from Southeast Corner 33

LIST OF APPENDICES

Appendix A. ASIV Site Survey Report
Appendix B. Air Emissions Calculations
Appendix C. Correspondence
Appendix D. EIFS Model Results

THIS PAGE LEFT INTENTIONALLY BLANK

SECTION 1.0
Purpose, Need, and Scope

Environmental Assessment
Establishment of an Armed Forces Reserve Center
(AFRC)
Amarillo, Texas
BRAC 2005

1.0 Purpose, Need, and Scope

1.1 Introduction

On September 8, 2005, the Defense Base Realignment and Closure Commission (BRAC Commission) recommended that certain actions occur at Blucher S. Tharp Memorial (Tharp) United States (U.S.) Army Reserve Center (USARC), Amarillo, 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 (BRAC 2005).

The BRAC Commission recommended the closure of the Tharp USARC in Amarillo, Texas and relocation to a new Armed Forces Reserve Center (AFRC) in Amarillo, Texas. To enable implementation of this recommendation, the Army proposes to provide necessary facilities to support the establishment of the AFRC and relocation of the units to the AFRC. This Environmental Assessment (EA) analyzes and documents the potential environmental effects associated with the Army's Proposed Action in Amarillo, Texas. Details on the Proposed Action are presented later in Section 2.

1.2 Purpose and Need

The purpose of the Proposed Action is to implement the BRAC Commission's recommendation pertaining to the establishment of a new AFRC in Amarillo, Texas and relocation of the units from the Tharp USARC upon its closure.

These actions are required to implement the BRAC Commission recommendations to realign and transform Reserve Component facilities in Amarillo, Texas. The Army is legally bound to defend the U.S. and its territories, support National policies and objectives, and defeat nations responsible for aggression that endangers the peace and security of the U.S.. 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.

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, 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 at Amarillo to achieve the objectives for which Congress established the BRAC process.

1.3 Scope

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

This EA identifies, documents, and evaluates environmental effects of the construction and operation of a new AFRC in Amarillo, Texas to accommodate the proposed relocation of units from the existing Tharp USARC (Figure 1-1), which will be closed in accordance with BRAC 2005. The preferred site is located in the northeastern portion of the Amarillo Metropolitan Statistical Area (MSA), in northwestern Texas. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, historians, and military technicians have analyzed the Proposed Action and alternatives in light of existing conditions at the preferred site and identified relevant beneficial and adverse effects associated with the action. The Proposed Action is described in Section 2, and alternatives, including the No Action Alternative, are described in Section 3.0. Conditions existing as of 2008, considered to be the "baseline" conditions, are described in Section 4.0, Affected Environment and Environmental Consequences of this EA. The expected effects of the Proposed Action, also described in Section 4.0, are presented immediately following the description of baseline conditions for each environmental resource that are addressed in this EA. Section 4.0 also addresses the potential for cumulative effects, and mitigation measures are identified, where appropriate.

The Defense Base Closure and Realignment Act of 1990 specifies that the NEPA does not apply to actions of the President, the Commission, or the Department of Defense, 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.

1.4 Public Involvement

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

Public participation opportunities with respect to the EA and decision-making on the Proposed Action are guided by 32 CFR Part 651. The EA and draft Finding of No Significant Impact (FNSI) were made available to the public for 30 days beginning 23 November 2008. A Notice of Availability was published in the *Amarillo Globe News*. Proof of publication is contained in Appendix C. Copies of the EA and draft FNSI were sent to affected state, local and Federal agencies and were made available for review at local, public libraries and at a public website.

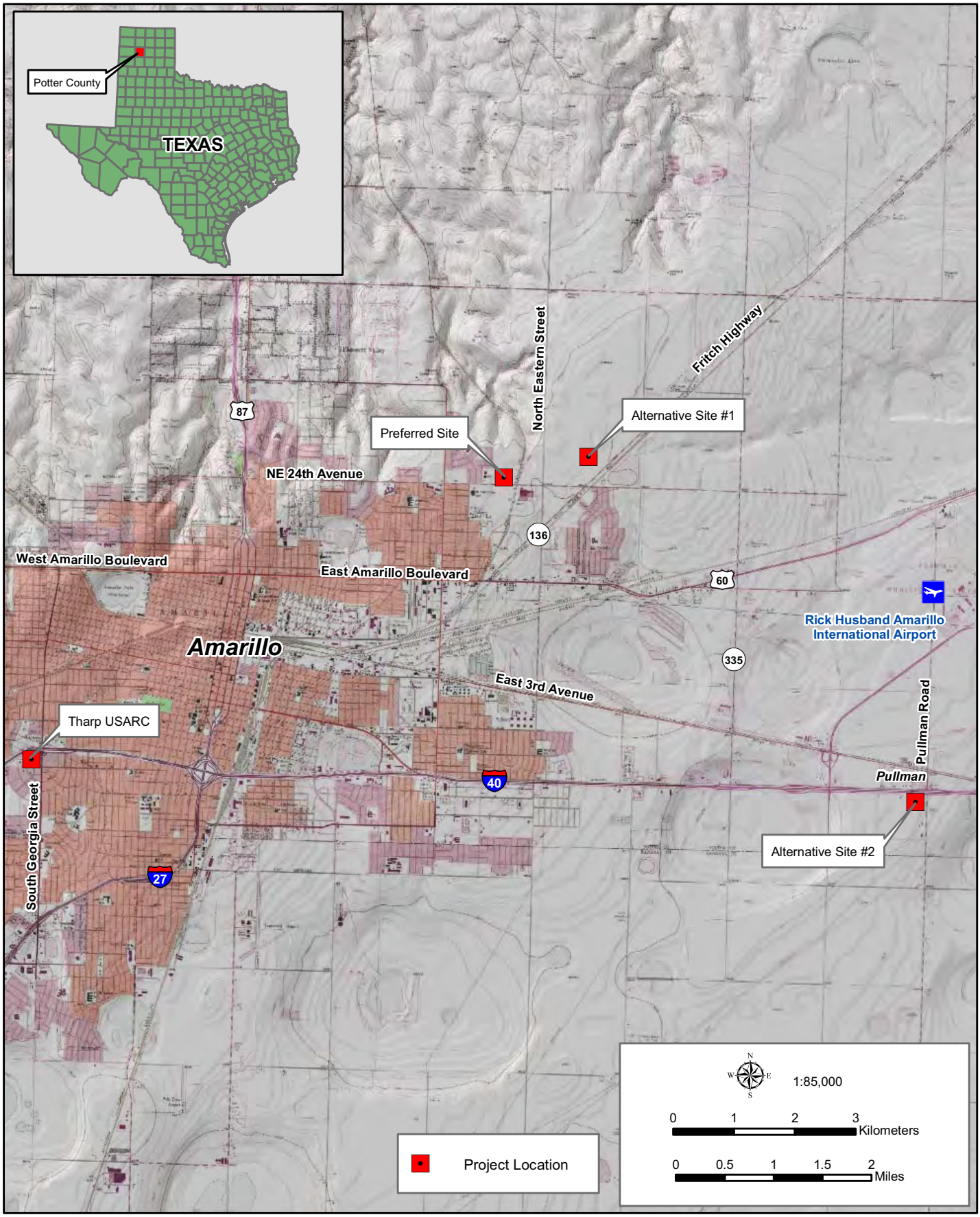


Figure 1-1: Vicinity Map

GSRC

September 2008

The only comment letters received during the public comment period were from the U.S. Environmental Protection Agency (EPA) and Texas Parks and Wildlife Department (TPWD). EPA agreed with the impact analyses and conclusions as presented in the EA. TPWD iterated comments that they had previously made in their concurrence letter to use native plant species, particularly those that provide food or shelter for wildlife, for revegetation purposes and landscaping plans, and to avoid impacts to the state-protected Texas horned lizard (*Phrynosoma cornutum*). Potential measures that could be implemented relative to these comments have been included in Section 4.15. As appropriate, the Army may execute the FNSI and proceed with implementation of the Proposed Action.

Throughout this process, the public may obtain information on the status and progress of the Proposed Action and the EA through the U.S. Army Reserve (USAR) 90th Regional Readiness Command (RRC) by contacting Mr. James Wheeler II, Chief, Environmental Division, 8000 Camp Robinson Road, North Little Rock, AR 72118-2205 or by telephone at (501) 771-7992.

1.5 Regulatory Framework

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

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

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Status of Compliance with Relevant Laws and Regulations
FEDERAL				
General	NEPA of 1969 (42 U.S.C. 4321 et seq.)	CEQ	Compliance with NEPA, in accordance with CEQ regulations (40 CFR 1500-1508)	Full compliance would be achieved upon issuance of signed FNSI (if appropriate)
	32 CFR 651 (Environmental Analysis of Army Actions)	Department of the Army	Compliance with regulations specified in 32 CFR 551	Full compliance would be achieved upon issuance of signed FNSI (if appropriate)
Sound/Noise	Noise Control Act of 1972 (42 USC 4901 et seq.), as amended by Quiet Communities of 1978 (P.L. 95-609)	United States Environmental Protection Agency (EPA)	Compliance with surface carrier noise emissions	Full compliance would be achieved upon implementation of construction activities
Air	Clean Air Act and amendments of 1990 (42 USC 7401-7671q) 40 CFR 50, 52, 93.153(b)	EPA	Compliance with National Ambient Air Quality Standards (NAAQS) and emission limits and/or reduction measures	Full compliance; emissions would be below *de minimis* thresholds

Table 1-1, continued

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Status of Compliance with Relevant Laws and Regulations
Water	Clean Water Act of 1977 (33 USC 1342) 40 CFR 122	EPA and Texas Commission on Environmental Quality (TCEQ)	Section 402(b) National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges for Construction Activities-Stormwater Pollution Prevention Plan (SWPPP)	SWPPP and Notice of Intent would be prepared prior to construction. Full compliance would be achieved prior to implementation of construction activities
	Executive Order 11988 (Floodplain Management), as amended by Executive Order 12608	Water Resources Council, Federal Emergency Management Agency (FEMA), CEQ	Compliance	Full compliance
	Executive Order 11990 (Protection of Wetlands), as amended by Executive Order 12608	USACE and U.S. Fish and Wildlife Service (USFWS)	Compliance	Full compliance
	Clean Water Act of 1977 (33 USC 1341 et seq.)	USACE and TCEQ	Section 401/404 Permit	No Waters of the U.S., including wetlands are present on the site
	Coastal Zone Management Act of 1972 (16 USC 1456[c]) Section 307	National Oceanic and Atmospheric Administration	Compliance	Amarillo is not within the coastal zone
Soils	Resource Conservation and Recovery Act of 1976 (42 USC 6901-6992k), as amended by Hazardous and Solid Waste Amendments of 1984 (P.L. 98-616; 98 Stat. 3221)	EPA	Proper management, and in some cases, permit for remediation	Full compliance would be achieved prior to implementation of construction activities
	Comprehensive, Environmental Response, Compensation, Liability Act of 1980 (42 USC 9601-9675), as amended by Emergency Planning and Community Right-To-Know-Act of 1986 (42 USC 11001 et seq.) Release or threatened release of a hazardous substance	EPA	Development of emergency response plans, notification, and cleanup	Full compliance
	Farmland Protection Policy Act of 1981 (7 USC 4201 et seq.) 7 CFR 657-658 Prime and unique farmlands	Natural Resource Conservation Service (NRCS)	NRCS determination via Form AD-1006	NRCS Form AD-1006 submitted on 22 August.
Natural Resources	Endangered Species Act (ESA) of 1973, as amended (16 USC 1531-1544)	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, develop mitigation measures	Full compliance since no protected species would be impacted. Concurrence received from USFWS on 21 October 2008.

Table 1-1, continued

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Status of Compliance with Relevant Laws and Regulations
Natural Resources, continued	Migratory Bird Treaty Act of 1918	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, develop mitigation measures	Full compliance would be achieved upon implementation of construction activities. If initial grubbing and clearing cannot avoid nesting season, breeding pairs and nests would be identified and avoided to the extent practicable
	Bald and Golden Eagle Act of 1940, as amended	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, obtain permit	No effects on bald or golden eagles; full compliance
Health and Safety	Occupational Safety and Health Act of 1970	Occupational Safety and Health Administration (OSHA)	Compliance with guidelines including Material Safety Data Sheets	Full compliance would be achieved upon implementation of construction activities
Cultural/ Archaeological	National Historic Preservation Act of 1966 (NHPA)	Advisory Council on Historic Preservation (ACHP) through State Historic Preservation Officer (SHPO)	Section 106 Consultation	Full compliance; no historic properties would be affected. Concurrence from Texas Historical Commission was received on 17 November 2008.
	Archaeological Resources Protection Act of 1979	Affected land-managing agency	Permits to survey and excavate/remove archaeological resources on Federal lands; Native American tribes with interests in resources must be consulted prior to issue of permits.	Full compliance
	EO 13175 (*Consultation and Coordination with Indian Tribal Governments*)	Bureau of Indian Affairs (BIA)	Coordinate directly with Tribes claiming cultural affinity to project areas	Full compliance
	Native American Graves & Repatriation Act (NAGPRA) as amended	National Park Service (NPS)	Coordination directly with tribes claiming cultural affinity to project areas	Full Compliance
	American Indian Religious Freedom Act (AIRFA)	National Park Service (NPS)	Coordination directly with tribes claiming cultural affinity to project areas	Full Compliance
Social/ Economic	Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) of 1994	EPA	Compliance	Full compliance since no minority or low income populations would be affected
	EO 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*)	EPA	Compliance	Full compliance since no children would be exposed to the construction activities

Table 1-1, continued

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Status of Compliance with Relevant Laws and Regulations
Social/ Economic, continued	EO 13101 (*Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition*)	EPA	Compliance	Full compliance
	EO 13123 (*Greening the Government Through Efficient Energy Management*)	EPA	Compliance	Full compliance
	EO 13148 (*Greening the Government Through Leadership in Environmental Management*)	EPA	Compliance	Full compliance

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

THIS PAGE LEFT INTENTIONALLY BLANK

SECTION 2.0
Proposed Action

2.0 Proposed Action

2.1 Introduction

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

> "*Close the Tharp United States Army Reserve Center, Amarillo, TX and relocate units to a new Armed Forces Reserve Center in Amarillo, TX; if the Army is able to acquire land suitable for the construction of the facilities. The new AFRC shall have the capability to accommodate Texas National Guard Units from the following Texas ARNG Readiness Centers: Amarillo, Pampa, and Hale Co, TX; if the state decides to relocate those National Guard units.*"

Therefore, the Proposed Action is to construct and operate a new AFRC in the northeastern region of Amarillo to accommodate the closure of the Tharp USARC and to relocate the units to the new AFRC. The preferred site, depicted in Figure 2-1, is located near the intersection of NE 24th Avenue and Eastern Street, about 3 miles north of Interstate 40 (I-40). Construction of the AFRC at this site would require the Army to purchase land, at a fair market value, from private ownership.

The new 600-member AFRC would include administrative, assembly, educational, storage, and physical fitness training facilities to accommodate three USAR units and three Texas Army National Guard (ARNG) units. The main AFRC building would be of permanent construction and approximately 102,023 square feet (SF) in size, excluding storage areas, associated parking areas, sidewalks and landscaping. The action would also include construction of a multi-use classroom/barracks, vehicle maintenance facility, and storage facilities. Accommodations would be provided to store a 2,500-gallon diesel fuel truck on-site as well.

All other associated infrastructure (e.g., plumbing, electrical systems; heating, ventilation, and air conditioning [HVAC] systems; and anti-terrorism/force protection [AT/FP] systems) would also be provided.

The preferred site is approximately 25 acres; however, the total area expected to be disturbed by the Proposed Action is approximately 12 acres. These inactivation and relocation actions, beginning in Fiscal Year 2008, support the BRAC Commission's recommendation.

2.2 Force Structure

Force structure refers to the numbers, size, and composition of units comprising Army forces. BRAC 2005 Commission recommendations concerning the Amarillo AFRC include changes of force structure through the reassignment of units from closing the Tharp USARC. As a result of proposed relocation, there would be no net change of active duty and civilian personnel at the AFRC, relative to the Tharp USARC. The new site, however, would be used by 10 to 15 permanent staff and up to 600 USAR personnel during training activities (Albaugh 2008).

Figure 2-1: Project Site Map - Preferred Site

GSRC

June 2008

2.3 Garrison Facilities

Implementation of the Proposed Action would require the construction of a 600-member AFRC in Amarillo that would include administrative, educational, storage, vehicle maintenance, library, and support areas. Table 2-1 identifies the proposed facilities projects. New construction projects would provide a total of approximately 108,590 SF of building space and 8,973 SF of parking.

Table 2-1. Proposed Construction Projects

Project No.	Facility	Square Feet (approximate)
64386	Armed Forces Reserve Center	102,023
64386	Vehicle Maintenance Shop	4,002
64386	Organizational Unit Storage	2,565
64386	Parking	8,973
	Total	**117,563**

Since there would be no net gain of personnel (military and civilians) assigned to the new AFRC, and the new AFRC would be less than 10 miles from the existing Tharp USARC, there would be, in effect, no change in housing needs. No demolition would be required as a result of the Proposed Action.

2.4 Training Facilities and Airspace

There would be no change to training range size or operations or airspace demands as a result of the Proposed Action. Units that use the Tharp USARC would continue to use Fort Hood, Texas and Camp Bullis, Texas as field training sites.

2.5 Weapon Systems

There would be no weapon systems used at the Amarillo AFRC as a result of the Proposed Action.

2.6 Schedule

Under the BRAC law, the Army must have initiated all realignments not later than September 15, 2007, and complete all realignments not later than September 15, 2011. Implementation of the Proposed Action would occur over a span of nearly 3 years. Facilities construction would be synchronized to meet the needs, on a priority basis, of units being relocated from overseas. Establishment of new units would occur as facilities for their operations and support become available. Table 2-2, below, is a tentative schedule for the design, construction activities and the proposed realignment actions.

Table 2-2. Tentative Dates for Completion of Major Items Associated with Relocation of Units to Amarillo AFRC, Texas

Action	Tentative Start Date	Tentative Completion Date
Design of New Facility	February 2009	August 2009
Construction of New Facility	September 2009	September 2010
Realignment of Tharp USARC to the new Amarillo AFRC	October 2010	September 2011

SECTION 3.0
Alternatives

3.0 Alternatives

3.1 Introduction

A basic 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. The following discussion identifies alternatives considered by the Army and identifies whether they are feasible and, hence, subject to detailed evaluation in the EA.

Alternatives to the Proposed Action have been examined according to three variables: means to physically accommodate realigned units, siting of new construction, and schedule. This section presents the Army's development of alternatives and addresses alternatives available for the Proposed Action. The section also describes the No Action Alternative.

General siting criteria for the AFRC 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. Other specific criteria require that the site is a minimum size of 12 acres, a rectangular shaped parcel and has a minimum side length of 500 feet. The latter is required to ensure sufficient size to comply with AT/FP requirements of 200-foot wide setbacks.

3.2 Development of Alternatives

3.2.1 Means to Accommodate Realigned Units

Other means or measures to relocate the USAR units in Amarillo would not be in compliance with the BRAC Commission's recommendations. Thus, other means of providing increased space requirements, including use of existing facilities, modernization or renovation of existing facilities, and leasing of off-post facilities are not considered viable and were eliminated from further consideration, as will be discussed later.

3.2.2 Siting of New Construction

The Army considers new construction of facilities when use of existing facilities, renovation, or leasing would fail to provide for adequate accommodations of realigned functions. The Army considers both general and specific siting criteria for construction of new facilities. USACE Fort Worth District, prepared the Available Site Identification and Validation (ASIV) Report for the proposed establishment of the new AFRC. The ASIV and the Site Survey Report identified three sites as viable sites for the location of the new AFRC. A copy of the ASIV and Site Survey Report is presented in Appendix A.

3.3.2.1 Alternative Site 1

Alternative Site 1 (Figure 3-1) is located within a 160-acre parcel of land located approximately 1 mile to the east of the preferred site. This site is also currently in agricultural production, with various developments (retail, public transportation, residential) surrounding the site (Photograph 3-1). This site conforms to the City of Amarillo's building ordinances and adhere to the general and specific siting criteria described above. This project has been coordinated with the 90th RRC's physical security plan, and all physical security measures would be included. All required AT/FP measures would also be included.

Photograph 3-1. Alternative Site 1; View Toward the Southwest from Northeast Corner of the Parcel

This site meets the site selection criteria described above and will be considered as a viable site if the preferred site becomes unavailable; consequently, this alternative site will be carried forward for further analyses. If selection of this site is required in the future, a supplemental NEPA document would be required, since no surveys have been conducted at the site.

3.3.2.2 Alternative Site 2

Alternative Site 2 (see Figure 3-1) is located within a 160-acre parcel of land located approximately 6.5 miles to the southeast of the preferred site. As can be seen in Photograph 3-2, this site is also currently in a fallow condition, but has been used for agricultural production in past years. Various developments (electrical easements, gasoline service stations, public transportation, residential) surround the site. This site also conforms to the City of Amarillo's building ordinances and adhere to the general and specific siting criteria described above. This project has been coordinated with the 90th RRC's physical security plan and all physical security measures would be included. All required AT/FP measures would also be included.

Photograph 3-2. Alternative Site 2; View Toward West from Northeast Corner of the Parcel

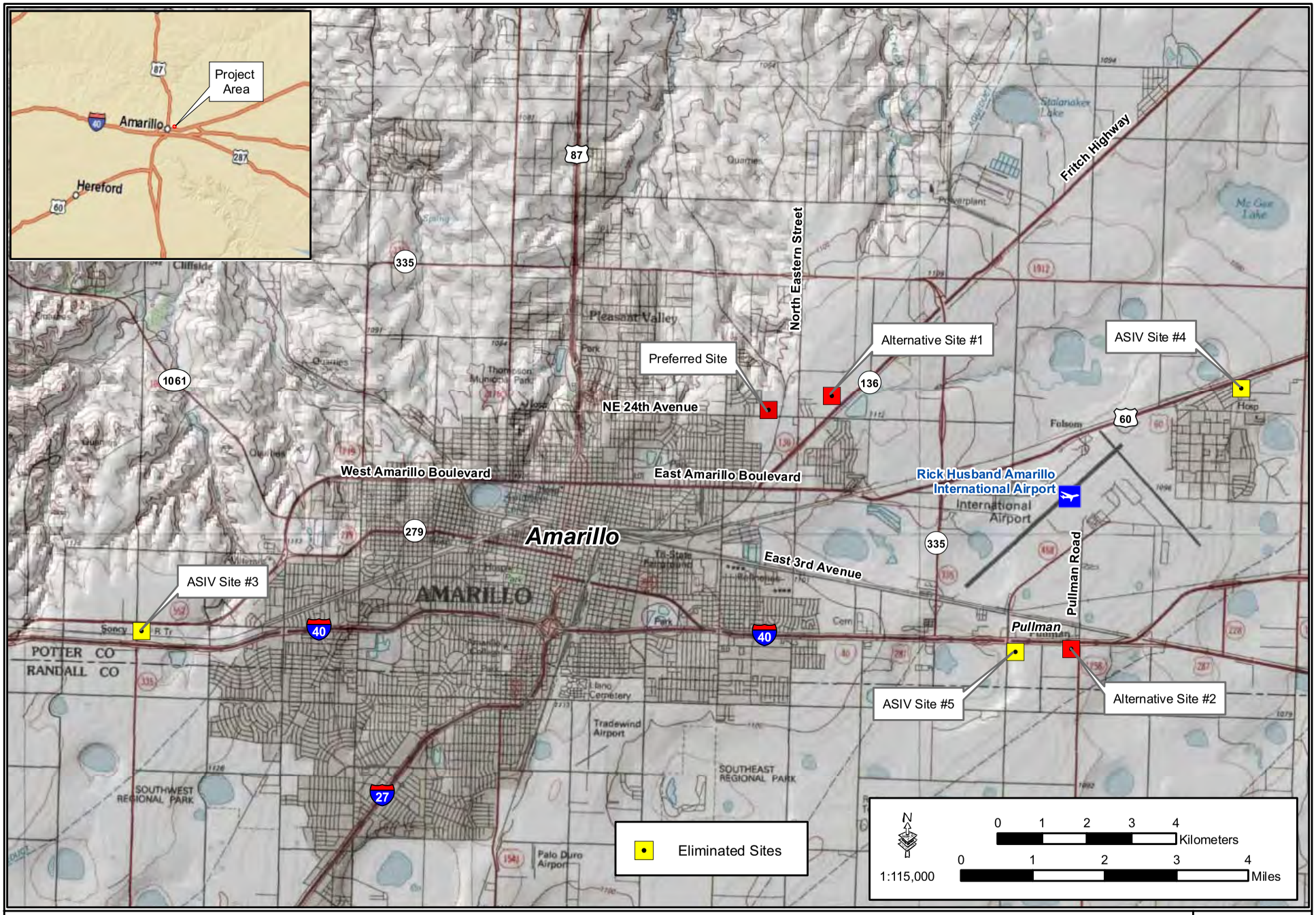


Figure 3-1: Alternative Sites and Other Sites Eliminated from Consideration

GSRC

September 2008

This site meets the site selection criteria described above and will be considered as a viable site if the preferred site becomes unavailable; consequently, this alternative site will be carried forward for further analyses. If selection of this site is required in the future, a supplemental NEPA document would be required, since no surveys have been conducted at the site.

3.3 Alternatives Eliminated from Further Consideration

3.3.1 Use of Leased Facilities to Accommodate Relocated Units

Use of leased space from private or commercial entities to meet the AFRC's requirements would involve several major drawbacks. AT/FP policies specify certain facilities characteristics, such as physical security features, a 200 feet set-back from roadways, and "hardened" or reinforced construction. Implementation of these measures would substantially increase the cost of leasing and might be prohibited by lessors, further complicating the potential to use leased space. To satisfy administrative space requirements and AT/FP measures, leasing of several facilities might also be required. Consequently, use of leased space in the private sector, and the potential to have personnel and equipment in different locations, would adversely affect command and control functions, result in higher operational costs, and impair efficient use of resources. For these reasons, use of leased space from private entities is not feasible and will not be evaluated in the EA.

3.3.2 Use of Existing Tharp USARC to Accommodate Units

Construction of new facilities is driven by the need to ensure adequate space is available for mission requirements. The Tharp USARC's existing building space is currently utilized at 230 percent of its capacity for administrative, commercial and military mission requirements. In addition, it is an 11,732 SF building that is 51 years old. The existing USARC is surrounded by residential and commercial properties that would prohibit expansion for new building construction. Accordingly, new construction at a different site is required, and the alternative to use or renovate existing facilities will not be discussed in the EA.

3.3.3 Other Construction Sites

In addition to the three viable sites that were identified by the ASIV team, three other sites (ASIV Sites 3, 4, and 5) were evaluated but were eliminated from further consideration (see Appendix A). The locations of these sites were presented previously on Figure 3-1. The reason each of these sites were eliminated was that the costs to acquire any of these sites would far exceed the cost of the other three sites (e.g., $264,000 for the preferred site versus $850,000 for ASIV Site #3, $1,600,000 for ASIV Site #4, or $240,000 per acre for Site #5).

3.3.4 Schedule

The schedule for implementation of the Proposed Action must balance facilities construction time frames, planned arrival dates of inbound units and stand-up dates of newly-established units. All of these actions need to be completed within the 6-year limitation of the BRAC law (see Section 2.6). Realignment earlier than that shown in the schedule in Section 2.6 is not feasible in light of the time required to build facilities. Shifting of schedules to accomplish realignment at a later date would unnecessarily delay realization of benefits to be gained and would disrupt mission activities. Since earlier implementation is not possible, and since delay is avoidable and unnecessary, alternative schedules will not be evaluated in the EA.

3.4 No Action Alternative

CEQ regulations require inclusion of the No Action Alternative. Under the No Action Alternative, the Tharp USARC would not be closed and the USAR units would not be relocated to a new

AFRC. However, since the closure and establishment of a new AFRC has been mandated by Congress and the President, the No Action Alternative will serve as a baseline against which the impacts of the Proposed Action can be evaluated.

THIS PAGE LEFT INTENTIONALLY BLANK

SECTION 4.0
Affected Environment and Consequences

4.0 Affected Environment and Consequences

4.1 Introduction

This section of the EA describes the natural and human environment that exists at and surrounding the preferred site in northeast Amarillo, and the potential effects on those resources as a result of the Proposed Action and alternatives. For the purposes of this EA, the project site is defined as the 25 acres identified as the preferred site for construction of the AFRC. The project area includes Amarillo and the lands surrounding the preferred site. The project region or vicinity is Potter County.

Only those parameters that have the potential to be affected by the Proposed Action Alternative and alternatives are described, as per CEQ guidance (40 CFR 1501.7(a)(3)). Therefore, resources and items, such as climate, air space, energy sources, communication systems, coastal zone resources, and solid waste are not addressed for the following reasons:

- Climate—the proposed project would not affect, nor be affected by, climate.
- Air space—the proposed project does not involve any additional aircraft training, and, thus, air space would not be affected.
- Geology—The Amarillo area geology consists of Quaternary alluvium deposited over older eroded Mesozoic strata on the high plains physiographic province of the Texas panhandle area. No geologic resources of any importance are present, and no impacts on surface or subsurface geology would occur as a result of any of the alternatives. Therefore, further analysis of geology impacts is not necessary for this EA.
- Coastal zone—the project site is not located within Texas' coastal zone.
- Waters of the U.S.—there are no streams, lakes, arroyos, washes or ditches or depressional areas on the site, and, thus, no potential jurisdictional Waters of the U.S., including wetlands.
- Communication systems—the project would have negligible additional demand or other impact on local or regional communication systems.
- Energy sources—slight increases in energy consumption would occur during the construction of the AFRC facility. However, the majority of the energy demands at the preferred site would be met by the same regional grid as currently provided at the Tharp USARC.
- Solid waste—the Proposed Action Alternative would not result in increased production of solid waste in the region, since the majority of the personnel would be relocated from the Tharp USARC, approximately 6 miles away.

An impact (consequence or effect) is defined as a modification of the human or natural environment that would result from the implementation of an action. The impacts can be either beneficial or adverse, and can be either directly related to the action or indirectly caused by the action (secondary, indirect, or synergistic effects). The effects can be temporary (short-term), long lasting (long-term), or permanent. For purposes of this EA, temporary effects are defined as those that would last less than 3 years after completion of the action. Long-term impacts are defined as those that would last up to 20 years. Permanent impacts would require an irretrievable and irreversible commitment of resources.

Impacts can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. The significance of the impacts presented in this EA is based upon existing regulatory standards, scientific and environmental knowledge, and/or best professional opinions of the authors of the EA. The significance of the impacts on each resource will be described as significant, moderate, minimal, insignificant (or negligible), or no impact. Significant impacts are those effects that would result in substantial changes to the environment and should receive the greatest attention in the decision-making process.

4.2 Land Use

4.2.1 Affected Environment

4.2.1.1 Proposed Action Alternative

4.2.1.1.1 Regional Setting

The preferred project site is located in the panhandle of northwestern Texas, in the northeastern region of Amarillo, Potter County, Texas. Amarillo is a city of 185,525 residents (U.S. Census Bureau 2006). The site is bounded to the south by NE 24th Avenue and is located near the intersection of NE 24th Avenue and Eastern Street, about 3 miles north of Interstate 40 (I-40).

4.2.1.1.2 Installation Land Use

The existing Tharp USARC was constructed in 1957 on 4.13 acres in Amarillo, Texas. The center consists of an 11,732 square feet training building and a 2,864 square feet maintenance shop.

4.2.1.1.3 Current and Planned Development

The preferred site is currently open grazing land under private ownership. The surrounding land uses include residential, public utilities (i.e., power and water distribution), transportation (i.e., public roads and railroads), private warehouses, and agricultural/ranching operations. The area is zoned for light industrial. There are no current development or improvement plans for the preferred site or surrounding area (Myer 2008).

4.2.1.2 Alternative Site 1

Alternative Site 1 is located within a 160-acre parcel of land located approximately 1 mile to the east of the preferred site. This site is currently in agricultural production, with various developments (warehouse, public transportation, residential) surrounding the site.

4.2.1.3 Alternative Site 2

Alternative Site 2 is located within a 160-acre parcel of land located approximately 6.5 miles to the southeast of the preferred site. This site is currently in agricultural production, with various developments (electrical easements, gasoline service stations, public transportation, residential) surrounding the site.

4.2.2 Environmental Consequences

4.2.2.1 Proposed Action Alternative

The preferred site is approximately 25 acres of vacant, unimproved land. The total area expected to be converted to impervious pavement and buildings by the Proposed Action is approximately 12 acres; however, the entire 25 acres would be removed from agricultural production (grazing) and converted to military uses. Activities at the AFRC would be limited to administrative and classroom training, as well as vehicle maintenance and repair. This use is consistent with the current zoning for this site. Therefore, negligible adverse impacts on land use would occur upon implementation of the Proposed Action Alternative.

4.2.2.2 Alternative Site 1
The construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action Alternative.

4.2.2.3 Alternative Site 2
The construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action Alternative.

4.2.2.4 No Action Alternative
Under the No Action Alternative, the Tharp USARC would not be closed and the USAR units would not be relocated to a new AFRC. Thus, no direct short-term changes in land use to the preferred site would occur under the No Action Alternative.

4.3 Aesthetics and Visual Resources

4.3.1 Affected Environment
The Amarillo USARC has been developed over the past several decades such that most, if not all, of the land has been disturbed at some time. The center is surrounded by residential and commercial properties. Consequently, the USARC site has limited visual qualities.

The preferred site, as shown in Figure 2-1 and Photograph 4-1, is unimproved pasture and has various developments surrounding the site, including water storage tanks, railroad facilities, and warehouses. Thus, the site affords limited aesthetic qualities.

Photograph 4-1. Preferred Site; View towards Northwest from Southeast Corner of Parcel

4.3.2 Environmental Consequences
4.3.2.1 Proposed Action Alternative
Construction and operation of the AFRC at the preferred site would eliminate approximately 12 acres of vacant, unimproved land and permanently replace these acres with pavement and hard structures. Temporary construction areas would need to be immediately replanted with native vegetation to avoid additional long-term or permanent adverse effects on the area's aesthetic resources. Nonetheless, because of the small amount of acreage impacted, and similar land uses surrounding the Amarillo AFRC, the permanent and temporary effects on the aesthetics and visual resources of the area would be considered insignificant.

4.3.2.2 Alternative Site 1
The construction and operation of the proposed AFRC at this site would result in similar impacts as described for the Proposed Action Alternative.

4.3.2.3 Alternative Site 2
The construction and operation of the proposed AFRC at this site would result in similar impacts as described for the Proposed Action Alternative.

4.3.2.4 No Action Alternative

Implementation of the No Action Alternative would allow the sites to remain in the current conditions, at least for the short term. The proposed site would continue to be vacant, unimproved land with limited visual qualities.

4.4 Air Quality

4.4.1 Affected Environment

The EPA established National Ambient Air Quality Standards (NAAQS) for specific pollutants determined to be of concern with respect to the health and welfare of the general public. Ambient air quality standards are classified as either "primary" or "secondary." The major pollutants of concern, or criteria pollutants, are carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), ozone (O_3), particulate matter less than 10 microns (PM-10), particulate matter less than 2.5 microns (PM-2.5), and lead. NAAQS represent the maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The NAAQS are included in Table 4-1.

Table 4-1. National Ambient Air Quality Standards

POLLUTANT	STANDARD VALUE	STANDARD TYPE
Carbon Monoxide (CO)		
8-hour average	9ppm (10mg/m^3)*	P
1-hour average	35ppm (40mg/m^3)*	P
Nitrogen Dioxide (NO_2)		
Annual arithmetic mean	0.053ppm (100µ/m^3)*	P and S
Ozone (O_3)		
8-hour average	0.08ppm (157µg/m^3)*	P and S
1-hour average	0.12ppm (235µg/m^3)*	P and S
Lead (Pb)		
Quarterly average	1.5µg/m^3	P and S
Particulate<10 micrometers (PM-10)		
Annual arithmetic mean	50µg/m^3	P and S
24-hour average	150µg/m^3	P and S
Particulate<2.5 micrometers (PM-2.5)		
Annual arithmetic mean	15µg/m^3	P and S
24-hour average	65µg/m^3	P and S
Sulfur Dioxide (SO_2)		
Annual average mean	0.03ppm (80µg/m^3)	P
24-hour average	0.14ppm (365µg/m^3)	P
3-hour average	0.50ppm (1300µg/m^3)	S

Legend: P= Primary S= Secondary Source: EPA 2006.
ppm = parts per million
mg/m^3 = milligrams per cubic meter of air
µg/m^3 = micrograms per cubic meter of air
* Parenthetical value is an approximate equivalent concentration

Areas that do not meet these NAAQS standards are called non-attainment areas; areas that meet both primary and secondary standards are known as attainment areas. The Federal Conformity Final Rule (40 CFR Parts 51 and 93) specifies criteria or requirements for conformity determinations for Federal projects. The Federal Conformity Rule was first promulgated in 1993 by the EPA, following the passage of Amendments to the Clean Air Act in 1990. The rule

mandates that a conformity analysis must be performed when a Federal action generates air pollutants in a region that has been designated a non-attainment or maintenance area for one or more NAAQS.

A conformity analysis is the process used to determine whether a Federal action meets the requirements of the General Conformity Rule. It requires the responsible Federal agency to evaluate the nature of a proposed action and associated air pollutant emissions, and calculate emissions as a result of the proposed action. If the emissions exceed established limits, known as *de minimis* thresholds, the proponent is required to implement appropriate mitigation measures. The EPA considers Potter County as in-attainment for all NAAQS (EPA 2008).

4.4.2 Environmental Consequences

4.4.2.1 Proposed Action Alternative

Temporary and minor increases in air pollution would occur from the use of construction equipment (combustible emissions) and the disturbance of soils (fugitive dust) during construction of the AFRC. Fugitive dust emissions were calculated using the emission factor of 0.11 ton per acre per month (Midwest Research Institute [MRI] 1996), which is a more current standard than the AP- 42 (1985) emission factor (EPA 2001).

Combustible emission calculations were made for standard construction equipment, such as bulldozers, excavators, pole trucks, front-end loaders, backhoes, cranes, and dump trucks, using emission factors from EPA-approved emission model NONROAD6.2. Assumptions were made regarding the type of equipment, the total number of days each piece of equipment would be used, and the number of hours per day each type of equipment would be used. EPA's NONROAD Model (EPA 2005) was used, as recommended by EPA's *Procedures Document for National Emission Inventory, Criteria Air Pollutants, 1985-1999* (EPA 2001), to calculate emissions from construction equipment such as bulldozers, cranes, etc.

Construction workers would temporarily increase the combustible emissions in the airshed during their commute to and from the project area. Similarly, emissions from delivery trucks contribute to the overall air emission budget. The new AFRC would add approximately 100 new commuters driving in the airshed on the weekends and 10 to 15 new fulltime staff (Albaugh 2008). The Tharp USARC and the new AFRC are located in the same county and airshed. Therefore, the staff daily commuter traffic would not increase emissions in the airshed, but would shift the emission sources from one part of the airshed to another. The air emissions from delivery trucks, construction worker commuters traveling to the job site, weekend trainees and fulltime staff were calculated using the EPA MOBILE6.2 Model (EPA 2005, 2005a, 2005b and 2005c). The construction emissions were calculated in the air emission analysis and included in the total emission estimates found in Table 4-2. Details of the analyses are presented in Appendix B.

Table 4-2. Potter County Total Air Emissions (tons/year) from Construction Activities vs. *de minimis* Levels

Pollutant	Total (tons/year)	*de minimis* Thresholds (tons/year)
CO	45.11	100
VOCs	8.63	100
NOx	63.16	100
PM-10	21.25	100
PM-2.5	8.43	100
Sulfur Dioxide (SO_2)	8.01	100

Source: *De minimis* thresholds are from 40 CFR 51.853 and emissions from GSRC model projections
Note: Potter County is in attainment for all NAAQS.

Several sources contribute to the total air impacts of the construction project. The air calculations in Table 4-2 included emissions from:

1. Combustible engines of construction equipment.
2. Construction workers commuting to and from work.
3. Supply trucks delivering materials for construction.
4. Fugitive dust from job site ground disturbances.

As can be seen from the tables, air emissions from the construction activities would not exceed *de minimis* thresholds and, thus, would not require a Conformity Determination. As there are no violations of air quality standards and no conflicts with the state implementation plans, there would be minor, temporary impacts on air quality as a result of the Proposed Action.

During the construction of the AFRC, proper and routine maintenance of all vehicles and other construction equipment would ensure that emissions are within the design standards of the equipment. Dust suppression methods should be implemented to minimize fugitive dust. In particular, wetting solutions would be applied to construction areas to minimize the emissions of fugitive dust. By using these environmental design measures, air emissions from the Proposed Action would be further reduced and would not result in impairments to air quality in the region.

4.4.2.2 Alternative Site 1

Since Alternative Site 1 is located within the same airshed as the preferred site, the construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action Alternative.

4.4.2.3 Alternative Site 2

Since Alternative Site 2 is located within the same airshed as the preferred site, the construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action Alternative.

4.4.2.4 No Action Alternative

Implementation of the No Action Alternative would not create additional air emissions in the Potter County airshed.

4.5 Noise

4.5.1 Affected Environment

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

Noise levels occurring at night generally produce a greater annoyance than do the same levels occurring during the day. It is generally agreed that people perceive intrusive noise at night as being 10 dBA (A-weighted decibel is a measure of noise at a given, maximum level or constant state level) louder than the same level of intrusive noise during the day, at least in terms of its potential for causing community annoyance. This perception is largely because background environmental sound levels at night in most areas are also about 10 dBA lower than those during the day. Acceptable noise levels have been established by the U.S. Department of Housing and Urban Development for construction activities in residential areas:

> **Acceptable** (not exceeding 65 dBA) – The noise exposure may be of some concern but common building construction will make the indoor environment acceptable and the outdoor environment will be reasonably pleasant for recreation and play.
>
> **Normally Unacceptable** (above 65 but not greater than 75 dBA) – The noise exposure is significantly more severe; barriers may be necessary between the site and prominent noise sources to make the outdoor environment acceptable; special building construction may be necessary to ensure that people indoors are sufficiently protected from outdoor noise.
>
> **Unacceptable** (greater than 75 dBA) – The noise exposure at the site is so severe that the construction costs to make the indoor noise environment acceptable may be prohibitive and the outdoor environment would still be unacceptable.

As a general rule of thumb, noise generated by a stationary noise source, or “point source,” will decrease by approximately 6 dBA over hard surfaces and 9 dBA over soft surfaces for each doubling of the distance. For example, if a noise source produces a noise level of 85 dBA at a reference distance of 50 feet over a hard surface, then the noise level would be 79 dBA at a distance of 100 feet from the noise source, 73 dBA at a distance of 200 feet, and so on. To estimate the attenuation of the noise over a given distance the following relationship is utilized:

$$\text{Equation 1: } dBA_2 = dBA_1 - 20 \log^{(d2/d1)}$$

Where:

dBA_2 = dBA at distance 2 from source (predicted)

dBA_1 = dBA at distance 1 from source (measured)

d_2 = Distance to location 2 from the source

d_1 = Distance to location 1 from the source

Source: California Department of Transportation 1998

4.5.1.1 Proposed Action Alternative

The preferred site is located in an industrial/residential area. Sensitive residential noise receptors are located northwest of the project site. Industrial facilities are located east of the site and pasture lands are located directly north and south of the site.

4.5.1.2 Alternative Site 1

The Alternative Site 1 is located in an agricultural field; however, residential areas are located west and south of the alternative site. The residential neighborhoods are located approximately 700 feet from the Alternative Site 1.

4.5.1.3 Alternative Site 2

The Alternative Site 2 is located in an industrial/residential area where the surrounding land uses are primarily open fields and commercial establishments. In addition, the Amarillo International Airport is located approximately 2 miles to the north of Alternative Site 2.

4.5.2 Environmental Consequences

4.5.2.1 Proposed Action Alternative

The installation of the new AFRC would require the use of common construction equipment. Table 4-3 describes noise emission levels for construction equipment which range from 76 dBA to 82 dBA at a distance of 50 feet (Federal Highway Administration [FHWA] 2007).

Table 4-3. A-Weighted (dBA) Sound Levels of Construction Equipment and Modeled Attenuation at Various Distances[1]

Noise Source	50 feet	100 feet	200 feet	500 feet	1000 feet
Backhoe	78	72	66	58	52
Crane	81	75	69	61	55
Dump truck	76	70	64	56	50
Excavator	81	75	69	61	55
Front end loader	79	73	67	59	53
Concrete mixer truck	79	73	67	59	53
Pneumatic tools	81	75	69	61	55
Bull dozer	82	76	70	62	56
Generator	81	75	69	61	55

Source: FHWA 2007 and GSRC

1. The dBA at 50 feet is a measured noise emission (FHWA 2007). The 100 to 1,000 foot results are modeled estimates.

Assuming the worst case scenario of 82 dBA, the noise model projected that noise levels of 82 dBA from a point source (i.e., bull dozer) would have to travel 370 feet before the noise would be attenuated to an acceptable level of 65 dBA. To achieve an attenuation of 82 dBA to a normally unacceptable level of 75 dBA, the distance from the noise source to the receptor is 110 feet.

Figure 4-1 depicts the anticipated 12-acre construction area within the 25-acre AFRC property boundaries and the 65 dBA noise contour. Assuming the construction activities are contained within the delineated construction area, approximately eight residential homes on Pinon Avenue are located within 370 feet of the northwest portion of the construction area. These homes may be exposed to normally unacceptable noise emissions greater than 65 dBA. To minimize this

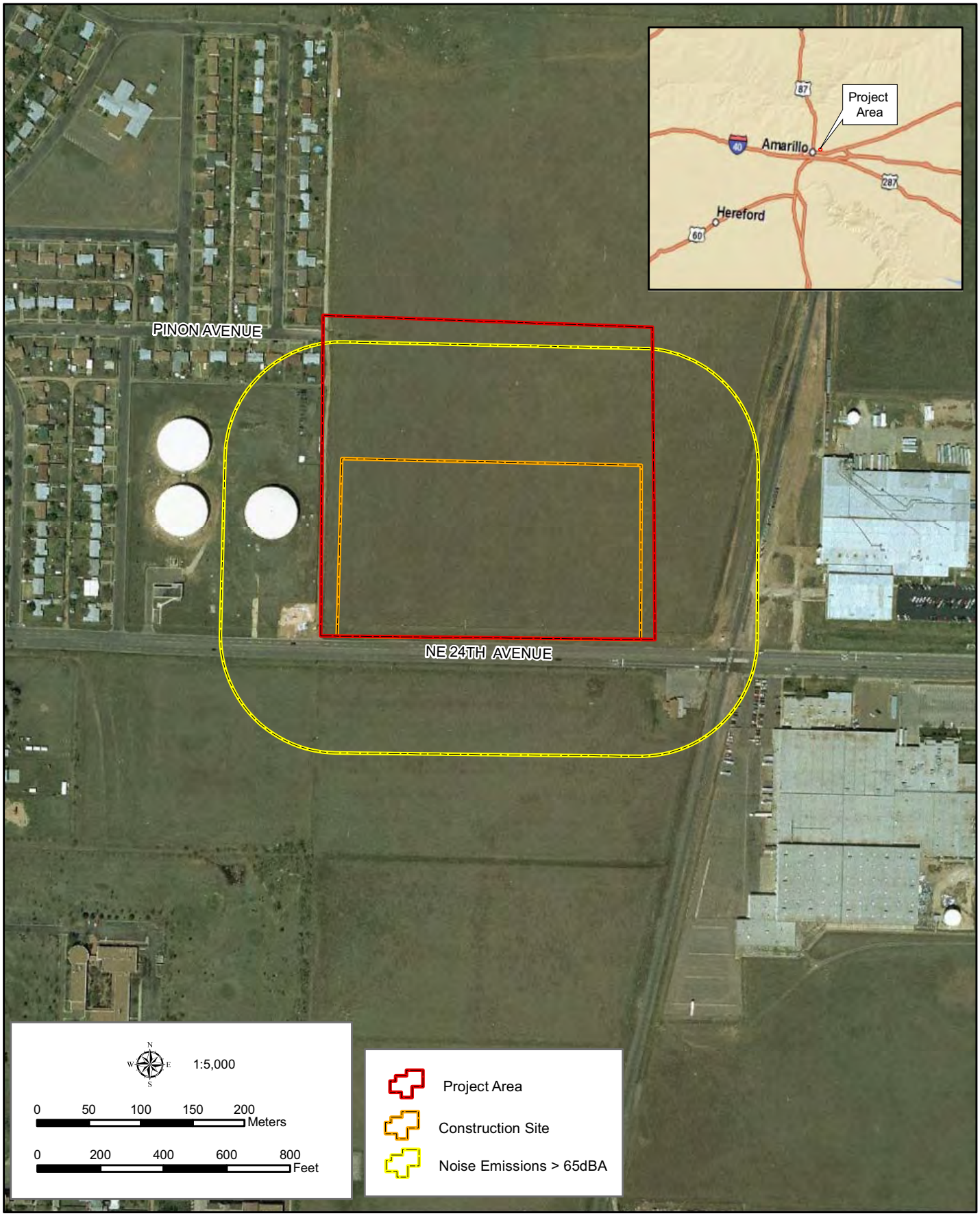


Figure 4-1: Preferred Site with 65dBA Construction Noise Contour

GSRC

June 2008

impact potential, construction activities should be limited to daylight hours during the work week (i.e., between 7:00 am to 5:00 pm on Monday through Friday). Noise impacts would be minor if these timing restrictions are implemented near the residential neighborhoods. Noise generated by the construction of the AFRC would be intermittent and last for 1 year, after which, noise levels would return to ambient levels. Therefore, the noise impacts from construction activities would be considered insignificant.

Operation of the AFRC would generate some additional noise due to traffic and vehicle repair shops. These activities would occur primarily during the day, when the adjacent streets experience heavy traffic volumes. Consequently, negligible impacts on the project area's ambient noise levels would be expected.

4.5.2.2 Alternative Site 1

The construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action Alternative. However, there are no noise sensitive receptors within 400 feet of Alternative Site 1; thus the impacts would be of less magnitude.

4.5.2.3 Alternative Site 2

The construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action Alternative. However, there are no noise sensitive receptors within 400 feet of Alternative Site 2 and the impacts would be of less magnitude than that described for the Proposed Action Alternative.

4.5.2.4 No Action Alternative

Implementation of the No Action Alternative would not create additional noise and thus, would not impact ambient noise levels in the region.

4.6 Soils

4.6.1 Affected Environment

The soil present on the surface of the preferred site consists of Pullman clay loam at 0 to 1 percent slopes (Figure 4-2). This soil is the dominant soil in the Amarillo area. According to the Natural Resources Conservation Service (NRCS 2008), Pullman clay loam is considered prime farmland soil, and conversion of this soil at any of the alternative project sites would require completion of a Farmland Conversion Impact Rating assessment and consultation with the local NRCS office. The preferred site is currently a grassed field maintained for livestock grazing. The other two alternatives sites also consist of Pullman clay loam.

4.6.2 Environmental Consequences

4.6.2.1 Proposed Action Alternative

The Proposed Action Alternative would impact approximately 12 acres of Pullman clay loam through conversion from undeveloped, passive agricultural land to developed land with extensive impermeable surfaces, with indirect impacts on an additional 13 acres due to denied access. The site is located adjacent to other developed land, including a major 4-lane road, a railroad, a water production and distribution facility, and residential development. The site is within the city limits of Amarillo, and future development of the site for crop production or other agricultural purposes would be unlikely, considering the location within an otherwise developed commercial corridor. Best Management Practices (BMPs) to prevent soil erosion, would be implemented to prevent soil migration off-site due to wind or rain activity. These BMPs would be identified in the SWPPP that would be required as part of the Texas Pollutant Discharge

Figure 4-2: Preferred Site Soils Map

GSRC

June 2008

Elimination System (TPDES) permit for development. The TPDES permit would address post-construction storm water retention and control measures as well. An impact analysis on Form AD-1006 was completed and submitted to the NRCS on 22 August 2008. The determination of significant impacts has been obtained from NRCS in accordance with the Farmland Protection Policy Act (see Appendix C).

4.6.2.2 Alternative Site 1

Alternative Site 1 is also comprised of Pullman clay loam on the surface, so impacts for this alternative would be similar to the Proposed Action Alternative.

4.6.2.3 Alternative Site 2

Alternative Site 2 is also comprised of Pullman clay loam on the surface, so impacts for this alternative would be similar to the Proposed Action Alternative.

4.6.2.4 No Action Alternative

Under the No Action Alternative, there would be no conversion of prime farmland soils, since no new AFRC would be constructed.

4.7 Water Resources

4.7.1 Affected Environment

4.7.1.1 Surface Water

4.7.1.1.1 Proposed Action Alternative

The proposed AFRC site is located within the High Plains Watershed. No streams and wetland surface waters are located within or immediately near the preferred site. In addition, no waters in the vicinity of the proposed AFRC site have state-approved designated uses, and none are listed on the state Clean Water Act (CWA) Section 303 (d) impaired waters list (EPA 2008).

Texas requires the completion of a Stormwater Discharge Permit for construction site erosion control, which is issued by the TCEQ, prior to initiation of construction. Through the permitting process, the Army would develop methods to minimize erosion and control stormwater runoff both during and after construction by utilizing BMPs and meeting performance standards established by the TCEQ. The Army or its contractor(s) would develop a site-specific SWPPP and Erosion Control Plan describing the BMPs that would be used on-site for erosion control.

4.7.1.1.2 Alternative Site 1

Alternative Site 1 is located within a 160-acre parcel of land located approximately 1 mile to the east of the preferred site, and is in the same watershed as the preferred site.

4.7.1.1.3 Alternative Site 2

Alternative Site 2 is located within a 160-acre parcel of land located approximately 6.5 miles to the southeast of the preferred site and is within the same watershed as the preferred site.

4.7.1.2 Hydrogeology/Groundwater

The Ogallala Aquifer is the largest aquifer in the U.S., and is a major aquifer of Texas, underlying much of the High Plains region. The aquifer consists of sand, gravel, clay, and silt, and has a maximum thickness of 800 feet. Freshwater saturated thickness averages 95 feet. Water to the north of the Canadian River, approximately 60 miles north or Amarillo, is generally fresh, with total dissolved solids typically less than 400 milligrams per liter (mg/l). However, water quality diminishes to the south, with large areas containing total dissolved solids in excess of 1,000 mg/l (Texas Water Development Board [TWDB] 2007).

Naturally occurring high levels of arsenic, radionuclides, and fluoride in excess of the primary drinking water standards are also present. The Ogallala Aquifer provides significantly more water, primarily for irrigation, for users than any other aquifer in the state. Although water level declines in excess of 300 feet have occurred in several areas over the last 50 to 60 years, the rate of decline has slowed, and water levels have risen in a few areas (TWDB 2007).

Ground water generally flows from west to east and discharges naturally to streams and springs and by evapotranspiration in areas where the water table is near the land surface. Pumping from numerous irrigation wells is an important mechanism of ground-water discharge. Precipitation is the principal source of recharge for the aquifer (U.S. Geologic Survey [USGS] 2008).

4.7.1.3 Floodplain

EO 11988 (Floodplain Management) directs Federal agencies to avoid developments within floodplains. Floodways are defined as lands within the 100-year floodplain that have a 1 percent chance of becoming inundated by peak flows during any given year. Figure 4-3 depicts the 100-year FEMA floodplain features in the project region. As can be seen, the proposed site is located above the 100-year floodplain.

4.7.2 Environmental Consequences

4.7.2.1 Proposed Action Alternative

The Proposed Action Alternative would not result in significant impacts on water resources. A SWPPP would be prepared and followed to prevent impacts on surface water bodies and would address post-construction stormwater retention and control. BMPs would be followed to prevent impacts on surface and groundwater. Because the preferred site is above the 100-year floodplain, the Proposed Action Alternative at the preferred site would be in compliance with EO 11988.

4.7.2.2 Alternative Site 1

Because Alternative Site 1 is located within the same watershed as the preferred site, the construction and operation of the proposed AFRC at this site would result in similar impacts as described above. A SWPPP would be prepared and followed to prevent impacts to surface water bodies. BMPs would be followed to prevent impacts to surface and groundwater. Because the Alternative Site 1 is above the 100-year floodplain, construction and operation of the proposed AFRC at this site would be in compliance with EO 11988.

4.7.2.3 Alternative Site 2

Because Alternative Site 2 is located within the same watershed as the preferred site, the construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action Alternative. A SWPPP would be prepared and followed to prevent impacts to surface water bodies. BMPs would be followed to prevent impacts to surface and groundwater. Because the Alternative Site 2 is above the 100-year floodplain, construction and operation of the proposed AFRC at this site would be in compliance with EO 11988.

4.7.2.4 No Action Alternative

Under the No Action Alternative, no new development would occur. Baseline conditions for surface and ground waters, as described above, would remain unchanged.

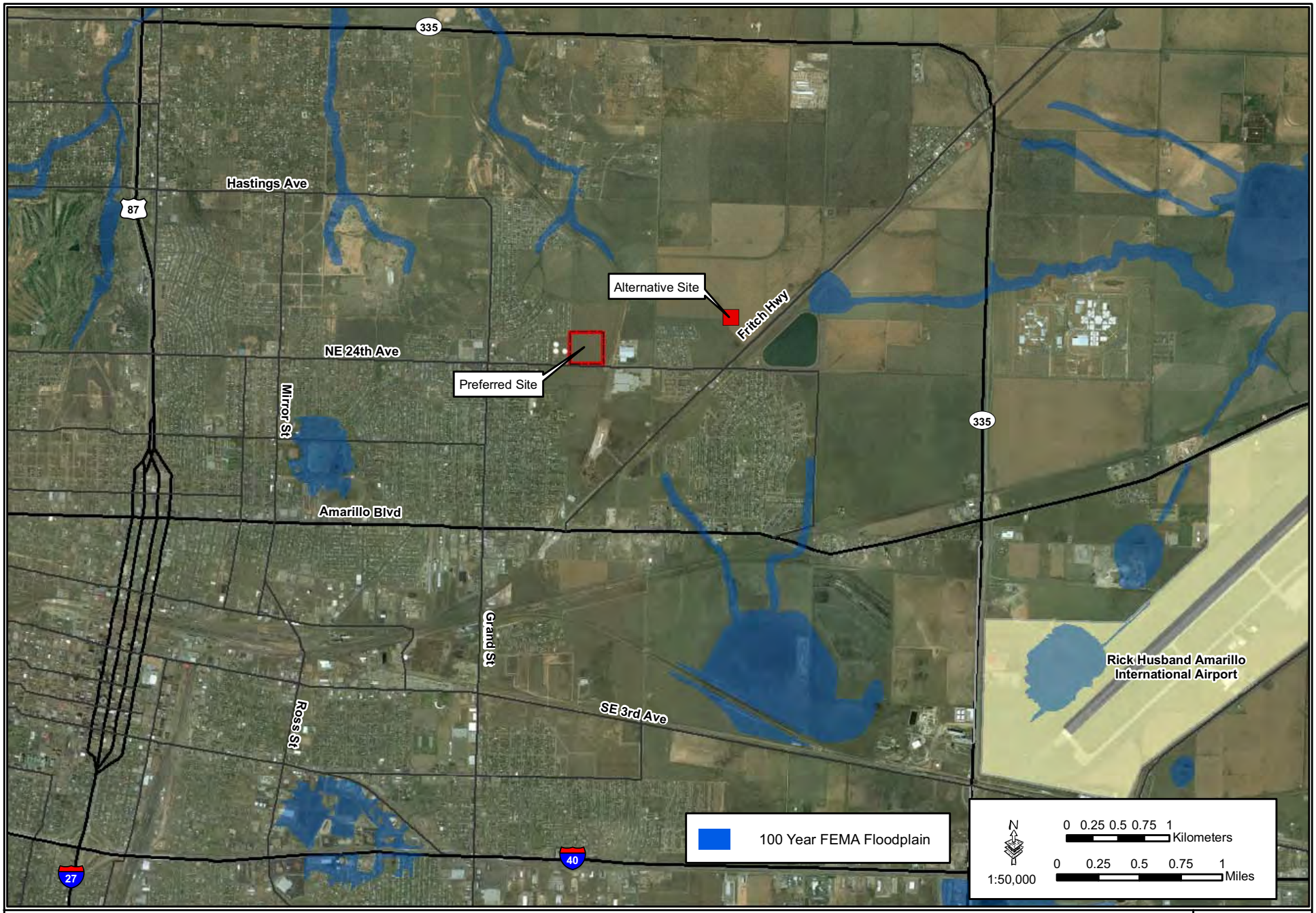


Figure 4-3: FEMA Floodplain Map

GSRC

October 2008

4.8 Biological Resources

4.8.1 Affected Environment

4.8.1.1 Vegetation

The Texas Parks and Wildlife Department's (TPWD) report entitled *The Vegetation Types of Texas* indicates the project site is located within the High Plains and Rolling Plains Ecological Areas. The mapped vegetation type of the project site falls within the Blue Grama and Buffalograss Grassland communities. Common species which typify these communities include blue grama (*Bouteloua gracilis*), sideoats grama (*B. curtipendula*), hairy grama (*B. hirsuta*), buffalograss (*B. dactyloides*), sand dropseed (Sporobolus cryptandrus), grassland prickly pear (*Opuntia macrorhiza*), narrowleaf yucca (*Yucca angustissima*), broom snakeweed (*Gutierrezia sarothrae*), zinnia (*Zinnia* spp.), rush pea (*Hoffmannseggia* spp.*),* and scurfpea (*Psoralidium tenuiflorum*) (TPWD 1984).

A survey of the project site was conducted in July 2008. The site consists of a disturbed/fallow field containing various native and non-native grasses, herbs and forbs. The most common species observed included silvery bluestem (*Bothriochola saccharoides*), saltgrass (*Distichlis spicata*), three-awn grass (*Aristida* sp.), buffalograss, Russian thistle (*Salsola kali*), curlycup gumweed (*Grindelia squarrosa*), Johnsongrass (*Sorghum halpense*), thistle (*Cirsium* spp.), purple nightshade (*Solanum triflorum*), and grassland pricklypear. The site is surrounded by a variety of developments, including residential, a public water storage facility, private warehouses, and a railroad, as depicted previously in Figure 2-1. Photographs 4-2 and 4-3 provide further documentation of the vegetation communities at the site.

Photograph 4-2. Preferred Site. View Toward the South from Northwest Corner

Photograph 4-3. Preferred Site. View Toward the Northwest from Southeast Corner

4.8.1.2 Wildlife

Wildlife species likely to occur in these High Plains and Rolling Plains ecological areas include, but are not limited to, prairie falcon (*Falco mexicanus)*, northern harrier (*Circus cyaneus*), roadrunner (*Geococcyx californianus),* white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), black-tailed jackrabbit (*Lepus californicus*), cottontail rabbit (*Sylvilagus auduboni*), bobcat (*Lynx rufus*), opossum (*Didelphis virginiana*), red fox (*Vulpes fulva*), badger (*Taxidea taxus*), western diamondback rattlesnake (*Crotalus horridus*), Texas horned lizard, western collard lizard (*Crotaphytus collaris*), southern prairie lizard (*Scleoporus undulatus*), and Great Plains skink (*Eumeces obsoleuts*) (Davis 1974, Bartlett and Bartlett 1999, TPWD 2008a). However, since the project area also falls within an urbanized/developed area, the species

assemblage may differ due to disturbance. Additional species not associated with grasslands, such as rock pigeon (*Columba livia*) and common raccoon (*Procyon lotor*), may be present due to their ability to tolerate human disturbances; and, other species that would normally be present in a natural grasslands community, may be absent.

Wildlife or evidence of their presence that were observed during the July 2008 survey of the preferred site included black-tailed jackrabbit, northern mockingbird (*Mimus polyglottos*), great-tailed grackle (*Quiscalus major*), western meadowlark (*Sturnella neglecta*), mourning dove (*Zenaida macroura*), house sparrow (*Passer domesticus*), and domestic dogs, cats and chickens.

4.8.1.3 Sensitive Species

4.8.1.3.1 Federal

The USFWS is the primary agency responsible for implementing the ESA (ESA), and is responsible for birds and other terrestrial and freshwater species. The USFWS has identified species that are listed as threatened or endangered, as well as candidates for listing as a result of identified threats to their continued existence. Although not protected by the ESA, candidate species may be protected under other Federal or state laws. Table 4-4 lists the three listed species that have the potential to occur within Potter County. No suitable habitat for these species was observed on the project site. A concurrence letter was sent to the USFWS on 13 August 2008 indicating that none of these species would be expected to occur at this preferred site; and concurrence of the no effect determination was received by Mr. James Wheeler II on 21 October 2008 (see Appendix C).

Table 4-4. Federally Listed Species Potentially Occurring within Potter County, Texas

Species Name	Federal Status	Preferred Habitat and Nearest Known Occurrences	Potential to Occur
Fish			
Arkansas River shiner *Notropis girardi*	Threatened with Critical Habitat	Channels of wide, shallow, sand-bottomed rivers and larger streams of the Arkansas River basin; known to occur in the Cimarron River in Seward County, Kansas through Logan County, Oklahoma	No
Birds			
Whooping crane *Grus americana*	Endangered (Non-essential, experimental population)	Wetlands of varied size, shape and depth, mostly those with soft marl bottoms; Arkansas National Wildlife Refuge.	No
Bald Eagle *Haliaeetus leucocephalus*	Delisted (Monitored)	Large water bodies with cliffs or large trees that can support nests	No

4.8.1.3.2 State

TPWD maintains the list of Rare, Threatened, and Endangered Species in Texas. This list includes fauna whose occurrence in Texas is or may be in jeopardy, or with known or perceived threats or population declines (TPWD 2008b). These species are not necessarily the same as those protected by the Federal government under the ESA. Of the 16 rare, threatened, and endangered species known to occur in Potter County, only one (Texas horned lizard) has the potential to occur within the project site. However, this species was not observed during the site

survey and, due to the fairly dense grass cover that occurs throughout the site, it is unlikely that the Texas horned lizard would be found at the site. A concurrence letter was also submitted to TPWD, and a response was received on 10 November 2008 (Appendix C).

4.8.2 Environmental Consequences

4.8.2.1 Proposed Action Alternative

The implementation of the Proposed Action Alternative would have permanent, but minimal, impacts on biological resources. Because the site consists of disturbed grasslands, there would be insignificant direct impacts on natural vegetation communities. Negligible impacts on wildlife populations would be expected, and the species that are most likely to be impacted would be fairly ubiquitous (e.g., black-tailed jackrabbits, western meadowlark, and killdeer). There is no suitable habitat to support Federally threatened or endangered species at the project site; therefore, there would be no impacts on Federally-listed species. Only one state listed species (Texas horned lizard) has the potential to be encountered within the project site; however, it is unlikely that this species would be present at the project site because of the dense grass cover.

4.8.2.2 Alternative Site 1

The construction and operation of the proposed AFRC at this site would be expected to result in similar impacts as described above for the Proposed Action Alternative. However, no field surveys were conducted at this site, so accurate statements regarding the presence/absence of wildlife, protected species or wetlands cannot be made at the present time. If Alternative Site 1 is ultimately selected, supplemental NEPA documentation would be required to fully assess the potential impacts to these resources.

4.8.2.3 Alternative Site 2

The construction and operation of the proposed AFRC at this site would be expected to result in similar impacts as described above for the Proposed Action Alternative. However, no field surveys were conducted at this site, so accurate statements regarding the presence/absence of wildlife, protected species or wetlands cannot be made at the present time. If Alternative Site 2 is ultimately selected, supplemental NEPA documentation would be required to fully assess the potential impacts to these resources.

4.8.2.4 No Action Alternative

Under the No Action Alternative, there would be no direct impacts on vegetation, wildlife, sensitive species, or wetlands. The existing USARC is located in a developed area and there are no sensitive species or vegetation communities nearby.

4.9 Cultural Resources

4.9.1 Affected Environment

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

4.9.1.1 Cultural Overview

TEC, Inc. performed a Phase I Cultural Resources Survey of the project site on July 15 to 17, 2008. Prior to the field investigation, an archaeological assessment was conducted of the project site using the Texas Archaeological Site Atlas (TASA). The TASA indicated that no previous surveys or previously recorded cultural resources are present on the project site.

4.9.2 Environmental Consequences

4.9.2.1 Proposed Action Alternative

One isolated artifact (BRAC-AM-IF#1) was located on the surface in the northeast corner of the property. The artifact consists of a retouched flake of Alibates chert that may have functioned as a scraping tool. An intensive inspection of the area surrounding the artifact yielded no additional artifacts. No significant cultural materials were found during the field investigation and the potential for subsurface materials is low. Due to the lack of archaeological resources found within the site during the field investigation, it is unlikely that significant subsurface archaeological resources exist within the parcel.

Native American tribes claiming a cultural affinity with the project area were identified using the Native American Consultation Database (NACD) and the Indian Lands Cessions 1784-1894 located online at the National Park Service's website along with records housed at the USACE and the tribes listed in the U.S. Army Reserve Integrated Cultural Resources Management Plan (ICRMP), 90th RRC, Texas. As a result, consultation letters were sent to the Apache Tribe of Oklahoma, the Comanche Nation, and the Kiowa Tribe of Oklahoma. To date no tribes have expressed interest in the proposed project and no traditional cultural properties, resource procurement areas, tribal resources, tribal rights, or sacred sites were identified during the recent investigations and past tribal consultations. Due to the lack of any identified properties, extensive site disturbance, and prior development of the project site, it is highly unlikely that any buried deposits are present within the project site that would be considered significant to Native American or other traditional communities.

A letter was submitted to the Texas Historical Commission (THC, which is the SHPO) on 9 October 2008 requesting THC's concurrence of the Army's determination of no historic properties affected by the proposed project as per 36CFR800.4(d)(1). A letter of concurrence was received on 17 November 2008.

Prior to construction, the Army would brief the construction crews on procedures to follow in case of an unexpected discovery of cultural resources. If any cultural resources are uncovered during construction, the Army and the THC would be notified, and all construction activities would stop until a qualified archaeologist could assess the significance of the cultural remains. If human remains are encountered, the local coroner and law enforcement agency would be contacted. If the remains are of Native American origin, compliance with the Native American Graves and Repatriation Act regulations would be required.

4.9.2.2 Alternative Site 1

The construction and operation of the proposed AFRC at this site would be expected to result in similar impacts as described above for the Proposed Action Alternative. However, no cultural resources field surveys were conducted at this site, so accurate statements regarding the presence/absence of potentially significant historic properties cannot be made at the present time. If Alternative Site 1 is ultimately selected, cultural resources surveys and supplemental NEPA documentation would be required to fully assess the potential impacts to these resources.

4.9.2.3 Alternative Site 2

The construction and operation of the proposed AFRC at this site would be expected to result in similar impacts as described above for the Proposed Action Alternative. However, no cultural resources field surveys were conducted at this site, so accurate statements regarding the presence/absence of potentially significant historic properties cannot be made at the present time. If Alternative Site 2 is ultimately selected, cultural resources surveys and supplemental NEPA documentation would be required to fully assess the potential impacts to these resources.

4.9.2.4 No Action Alternative

No adverse impacts on historical or cultural resources are anticipated from the implementation of the No Action Alternative, since no construction would occur.

4.10 Socioeconomic Resources

4.10.1 Affected Environment

4.10.1.1 Population

Armstrong, Carson, Potter and Randall counties are considered the Region of Influence (ROI) for the Proposed Action relative to socioeconomic effects. All four counties are part of the Amarillo, Texas Metropolitan Statistical Area. The 2006 population for Potter and Randall counties and the 2000 population for Armstrong and Carson counties are presented in Table 4-5. As can be seen, the racial mix of the ROI consists predominantly of Caucasians and persons of some other race. The remainder is divided among African Americans, Asians, people claiming to be two or more races, Native Americans, and Native Hawaiians or other Pacific Islanders. The ROI has a significant portion of the population that claims Hispanic or Latino origins (U.S. Census Bureau 2006b).

Table 4-5. Population and Race

Geographic Region	Total Population	Race							
		White (%)	African American (%)	Native American (%)	Asian (%)	Native Hawaiian or other Pacific Islander (%)	Some Other Race (%)	Two or more Races (%)	Hispanic or Latino Origin of any Race (%)
Texas (2006)	23,507,783	69.8	11.6	0.5	3.3	0.1	13.0	1.8	35.7
Armstrong County (2000)	2,148	95.4	0.3	0.7	0.0	0.0	2.8	0.8	5.4
Carson County (2000)	6,516	93.8	0.6	1.0	0.1	0.0	3.0	1.4	7.0
Potter County (2006)	121,328	68.6	10.0	1.1	2.5	0.2	15.4	2.3	32.2
Randall County (2006)	111,472	86.7	1.6	0.0	1.7	0.1	7.6	2.5	13.2

Sources: U.S. Census Bureau 2006a and b

4.10.1.2 Income and Employment

As shown in Table 4-6, in 2006 Armstrong and Carson counties had a per capita personal income (PCPI) of $30,415 and $27,976, respectively, while Potter and Randall counties had a PCPI of $28,352 and $33,012, respectively. The PCPIs for Armstrong and Carson counties

ranked 65th and 110th in the state, were 86 and 80 percent of the state average ($35,166), and were 83 and 76 percent of the National average ($36,714), respectively. The PCPIs for Potter and Randall counties ranked 102nd and 42nd in the state, were 81 and 94 percent of the state average ($35,166) and were 77 and 90 percent of the National average ($36,714), respectively. The 1996-2006 average annual growth rate of PCPI for Armstrong and Carson counties was 4.8 and 2.0 percent, respectively. The 1996-2006 average annual growth rate of PCPI for Potter and Randall counties was 4.4 and 3.7 percent, respectively. The average annual growth rate for the state was 4.7 percent and for the Nation was 4.3 percent (Bureau of Economic Analysis [BEA] 2006a and BEA 2006b).

Table 4-6. 2006 Per Capita Personal Income (PCPI)

	Per Capita Personal Income	Rank	Percent State Average	Percent National Average	Average Annual Growth Rate 1996-2006 (%)
Nation (Average)	$36,714	NA	NA	100	4.3
Texas (Average)	$35,166	21	100	96	4.7
Armstrong County	$30,415	65	86	83	4.8
Carson County	$27,976	110	80	76	2.0
Potter County	$28,352	102	81	77	4.4
Randall County	$33,012	42	94	90	3.7

NA=Not Applicable
Source: BEA 2006a and BEA 2006b

Total personal income (TPI) includes net earnings by place of residence; dividends, interest, and rent; and personal current transfer receipts received by the residents within the ROI. In 2006 the TPI for Armstrong County was $63.7 million and ranked 229th in the state; the TPI for Carson County was $178 million and ranked 186th in the state; the TPI for Potter County was $3.4 billion and ranked 35th in the state; the TPI for Randall County was $3.7 billion and ranked 32nd in the state. The 2006 TPI reflected an increase of 6.8 percent from 2005. The 1996-2006 average annual growth rate of the TPI was 4.8 and 1.8 percent for Armstrong and Carson counties, respectively. The 1996-2006 average annual growth rate of the TPI was 5.3 and 5.0 percent for Potter and Randall counties, respectively. The average annual growth rate for the state was 6.8 percent and for the Nation was 5.4 percent (Table 4-7) (BEA 2006a and 2006b).

Table 4-7. Total Personal Income

Geographic Region	Total Personal Income		2006 State Rank	Percent State Total	Average Annual Growth Rate 1996-2006 (%)
	1996	2006			
Texas	$427,810,267,000	$823,159,415,000	NA	100	6.8
Armstrong County	$39,973	$63,690,000	229	0.1	4.8
Carson County	$149,300	$178,403,000	186	0.1	1.8
Potter County	$2,039,765,000	$3,423,401,000	35	0.4	5.3
Randall County	$2,245,433	$3,669,756,000	32	0.4	5.0

NA=Not Applicable
Source: BEA 2006a and 2006b

The total number of jobs in the ROI was over 149,000 for 2006 (Table 4-8). The number of jobs in the ROI is up slightly from the number of jobs in 2001 except for Randall County which had a significant increase. The largest employer classification in Armstrong County was government and government enterprises (139 jobs), followed by health care and social assistance (97 jobs) and construction (67 jobs). The largest employer classification in Carson County was government and government enterprises (662 jobs), followed by retail trade (290 jobs), and other services except public administration (247 jobs). The largest employer classification in Potter County was government and government enterprises (13,825 jobs), followed by retail trade (12,819 jobs), and health care and social assistance (12,770 jobs). The largest employer classification in Randall County was retail trade (5,546 jobs), followed by health care and social assistance (4,964 jobs) and accommodation and food services (3,134 jobs) (BEA 2006c). The unemployment rate in Potter County was higher than the unemployment rate for Texas in 2000, but lower than the unemployment rate in Texas for 2006. The unemployment rate in Armstrong, Carson and Randall counties was lower than the unemployment rate in Texas for 2000 and 2006.

Table 4-8. Total Number of Jobs and Employment

Geographic Area	Total Number of Jobs			Unemployment Rate	
	2001	2006	% Change	2000 (%)	2006 (%)
Texas	12,356,260	13,514,130	9.37	4.4	4.9
Armstrong County	1,125	1,127	0.18	3.2	3.6
Carson County	5,828	6,217	6.67	3.3	3.5
Potter County	101,659	105,039	3.32	5.4	4.2
Randall County	27,471	37,556	36.71	2.5	3.3

Source: BEA 2001, 2006c, Real Estate Center 2008 and Tracer 2008

In 2006, the percentage of all people in poverty in the ROI was between 8 and 22 percent (Table 4-9). This percentage of people in Potter County living at or below poverty level is greater than the percentage of people below the poverty level for the State of Texas (17.5 percent) and the Nation (13.3 percent). However, the percentage of people living in poverty in Armstrong, Carson and Randall counties is less than those living in poverty in the State of Texas and the Nation. Median household income within the ROI in Armstrong, Carson and Potter counties is lower than the state and National household income; however median household income in Randall County is greater than the state and National household income.

Table 4-9. 2005 Poverty and Median Income by County

Geographic Location	Number in Poverty of All Ages	Percentage in Poverty	Median Income
Nation	38,231,474	13.3	$46,242
Texas	3,886,632	17.5	$42,165
Armstrong County	229	11.0	$42,671
Carson County	579	8.9	$41,245
Potter County	23,443	21.1	$30,316
Randall County	8,878	8.2	$47,356

Source: U.S. Census Bureau 2005

4.10.1.3 Housing

The total number of housing units in the ROI in 2000 was over 900 in Armstrong County and over 2,800 in Carson County. The total number of housing units in the ROI in 2006 was over 47,000 in Potter County and over 43,000 in Randall County (Table 4-10). Approximately 78.9 and 83.7 percent of the housing units in Armstrong and Carson County, respectively, were owner-occupied, while 59.1 and 69.2 percent of the housing units in Potter and Randall County, respectively, were owner-occupied (U.S. Census Bureau 2006b). Similarly, the owner-occupied houses for the state were estimated at 65.2 percent of all occupied houses (U.S. Census Bureau 2006a and 2006b).

Table 4-10. Housing Units

Location	Total Housing Units	Status		
		Occupied		Vacant
		Owned	Rented	
Texas	9,224,920	5,291,045	2,818,343	1,115,532
Armstrong County	920	633	169	118
Carson County	2,815	2,067	403	345
Potter County	47,789	24,335	16,842	6,612
Randall County	43,261	28,989	12,251	2,021

Source: U.S. Census Bureau 2006a and 2006b

4.10.1.4 Environmental Justice

EO 12898 (*Environmental Justice*) requires all Federal agencies to identify and address disproportionately high and adverse effect of their programs, policies, and activities on minority and low-income populations. As indicated previously, although the majority of the population in the ROI claims to be Caucasian, between 5.4 and 32.2 percent claim Hispanic origin and between 0.3 and 10.0 percent claim to be African American. Additionally, between 8 and 22 percent of the ROI population is considered to live below the poverty level. Consequently, there is a potential for the BRAC actions to encounter environmental justice issues within the ROI.

4.10.1.5 Protection of Children

EO 13045 (*Protection of Children*) requires each Federal agency "to identify and assess environmental health risks and safety risks that may disproportionately affect children"; and "ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks." In Armstrong County, about 5 percent of the population is 5 years old or less and 22 percent are younger than 18 years. In Carson County, about 6 percent of the population is 5 years old or less and 24 percent are younger than 18 years. In Potter County, about 9 percent of the population is 5 years old or less and 29 percent are younger than 18 years. In Randall County, about 5 percent of the population is 6 years old or less and 24 percent are younger than 18 years (U.S. Census Bureau 2006a). Potential protection of children issues arise when an action is near residential areas or schools.

4.10.2 Environmental Consequences

4.10.2.1 Proposed Action Alternative

The proposed establishment of the AFRC and the relocation of the units currently using the Tharp USARC would not result in a gain of military or civilian personnel. The Proposed Action Alternative would not adversely affect local income, employment rates, or poverty levels. There are no concentrations of minority populations or children near the Proposed Action Alternative. No displacements of residences or businesses would be required, and the construction area would be restricted to authorized personnel. Therefore, no disproportionate impacts on minority or low-income families or effects on children would occur as a result of the proposed action or alternatives, and the project would be in compliance with EO 12898 and EO 13045. Any materials or services purchased locally and any local hiring during construction would result in short-term negligible socioeconomic benefits. The Proposed Action Alternative would have no adverse effect on the socioeconomic conditions within the ROI. To further document the potential effects, a model of economic effects was run using the Economic Impact Forecast System (EIFS). The EIFS results indicated no net change in the long-term economy within the ROI. A copy of the EIFS results is presented in Appendix D.

4.10.2.2 Alternative Site 1

Since Alternative Site 1 is located within the same county, the construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action Alternative. There are no concentrations of minority populations or children near Alternative Site 1.

4.10.2.3 Alternative Site 2

Since Alternative Site 2 is located within the same county, the construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action Alternative. There are no concentrations of minority populations or children near Alternative Site 2.

4.10.2.4 No Action Alternative

Under the No Action Alternative, socioeconomic conditions would remain unchanged.

4.11 Transportation

4.11.1 Affected Environment

Numerous modes of transportation are available to serve the Amarillo AFRC, including air, rail, and highway access. The Rick Husband Amarillo International Airport is located approximately 4 miles to the southeast of the preferred site. This airport provides military, commercial, air taxi,

and general aviation services. Though Amarillo does not have a passenger railroad service, the Burlington Northern Santa Fe (BNSF) and Union Pacific Railroads send numerous shipments consisting mostly of coal and grain products to or through Amarillo each day. The BNSF rail junction station is located approximately 4 miles southwest of the preferred site (Figure 4-4). A BNSF line is located adjacent to the preferred site along the eastern boundary.

4.11.1.1 Proposed Action Alternative

The preferred site is served by many state and local roads (see Figure 4-4). Interstate-40 (I-40) is located approximately 3 miles south of the preferred site, and is a main east-west thoroughfare connecting Amarillo to Albuquerque, New Mexico and Oklahoma City, Oklahoma. Interstate 27 (I-27) is a major north-south oriented highway located approximately 4 miles south of the preferred site and connects Amarillo to Lubbock, Texas. U.S. Highways 87 (North Fillmore Street) and 287 (North Taylor Street) and State Route 434 (SR-434) are major north-south routes through the central business district of Amarillo adjoining the northern terminus of I-27 and are situated approximately 2.5 miles west of the preferred site. Highways 87 and 287, as well as SR-434, utilize the same roadway. Highway 60 (East and West Amarillo Boulevard) is a major east-west thoroughfare through northern Amarillo and is located 1 mile south of the preferred site. State Route 335 (North and South Lakeside Drives, and East and West Saint Francis Avenues) is a highway loop with a radius of approximately 6 miles that circles the City of Amarillo. Fritch Highway (SR-136) is oriented northeast-southwest, connects to Highway 60, and serves traffic along Martin Luther King Boulevard, 0.75 mile to the east of the preferred site.

According to 2005 through 2007 traffic data, an average of 14,800 vehicles utilize the Fritch Highway and Highway60 interchange in a 24-hour period (Texas Department of Transportation [TxDOT] 2004). The Fritch Highway and NE 24th Avenue intersection experiences approximately 7,800 vehicles daily (TxDOT 2008).

4.11.1.2 Alternative Site 1

Alternative Site 1 is located approximately 1,700 feet north of the intersection of NE 24th Avenue and Fritch Highway and 0.75 miles northeast of the Preferred Site. Alternative Site 1 is accessed via Fritch Highway and therefore would have similar temporary moderate increases on traffic volumes along access routes.

4.11.1.3 Alternative Site 2

Alternative Site 2 is located near the southwest intersection of I-40 and South Pullman Road and approximately 5 miles southeast of the preferred site. Vehicular access to Alternative Site 2 is provided via South Pullman Road. South Pullman Road near the I-40 and South Pullman Road interchange experiences daily traffic volumes of approximately 1700 vehicles per day (TxDOT 2004).

4.11.2 Environmental Consequences

4.11.2.1 Proposed Action Alternative

Construction of the Preferred AFRC would have no effect on regional air or rail service. Vehicle traffic at the site would be increased by approximately 44 vehicles per day during the construction period, primarily along SR-136 and NE 24th Avenue. This increase in daily traffic volume would consist of four delivery trucks and approximately 40 construction personnel passenger vehicles. Vehicle traffic off the site would also increase along the major arteries, particularly East Amarillo Boulevard and Fritch Highway, as construction crews and equipment commute to and from the construction site. Most equipment would be left on-site to alleviate on- and off-site traffic.

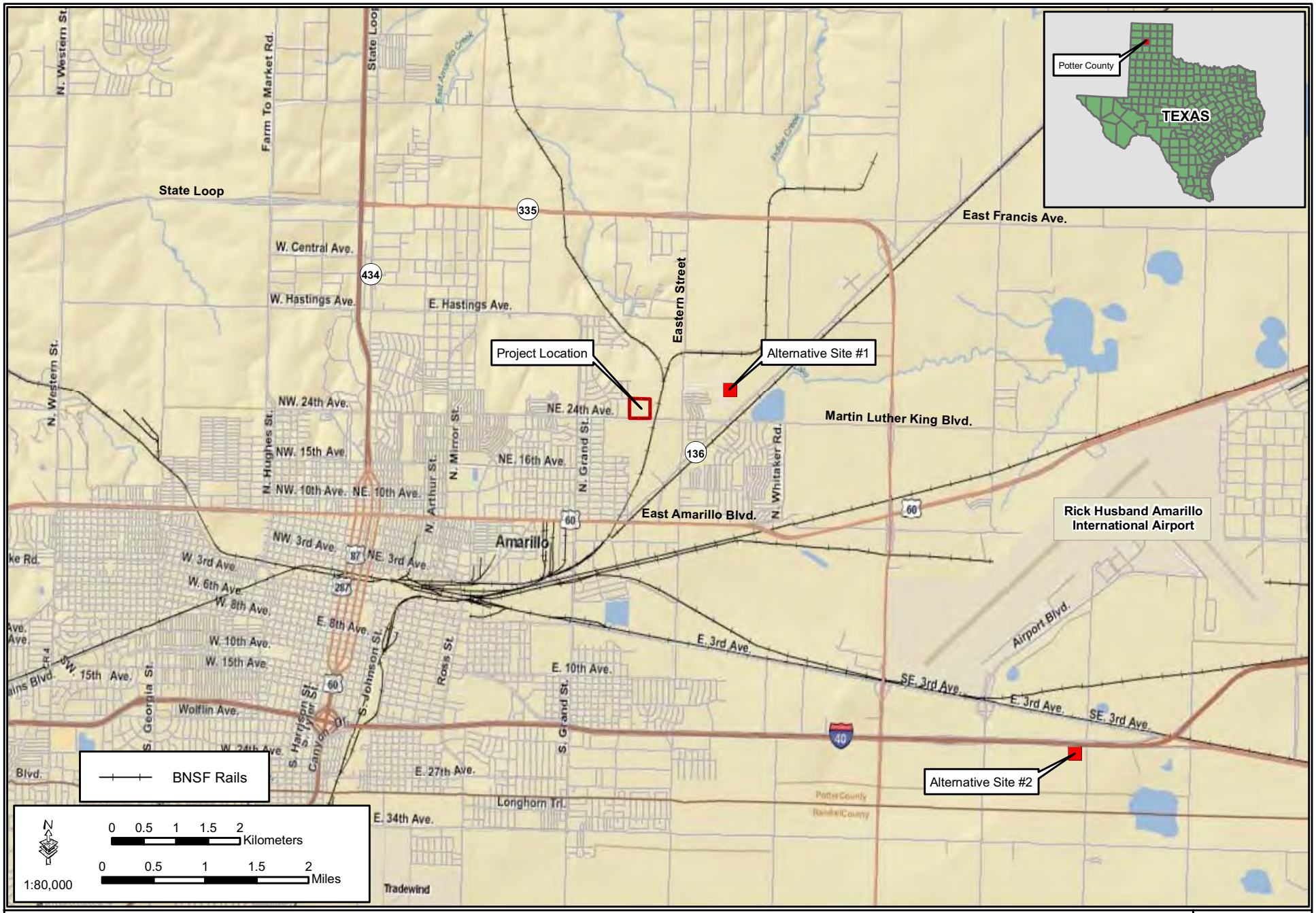


Figure 4-4: Transportation Map

GSRC

October 2008

Operation of the AFRC would also create temporary and moderate increases on these same streets. Congestion would occur primarily along the route including NE 24th Avenue, East Amarillo Boulevard, and Fritch Highway. As mentioned previously, approximately 10 to 15 additional vehicles would be expected to access the site 240 days per year, as a result of the implementation of the Proposed Action Alternative. This relatively low number of vehicles represents less than a 0.2 percent addition to the traffic volume in this area. The majority of the increased traffic would primarily occur during two weekends per month, particularly when Reserve units are conducting training activities. During training periods, it is anticipated that daily traffic counts would increase by approximately 100 vehicles or less than a 1.5 percent increase. The Level of Service designation for roads and intersections near the preferred site are classified as Level A. Peak hours of vehicular traffic (*i.e.* 7:00 – 8:00 am and 4:00 – 5:00 pm) exhibit approximately 300 vehicles during the morning commute and 480 vehicles during the evening commute (City of Amarillo 2008d). According to the City of Amarillo Traffic Engineering Department, the construction and operation of the proposed AFRC at the preferred site would have little to no effect on daily traffic or peak hour traffic volumes. Therefore, construction and operation of the AFRC would result in minimal to moderate adverse impacts on the traffic around the new Amarillo AFRC.

4.11.2.2 Alternative Site 1

The construction and operation of the proposed AFRC at Alternative Site 1 would result in similar impacts as described above for the Proposed Action Alternative. The Level of Service regarding vehicular traffic volumes would not change as a result of the construction and operation of the AFRC Alternate Site 1.

4.11.2.3 Alternative Site 2

Construction and operation of the AFRC at Alternative Site 2 would result in less than a 1 percent increase in daily traffic volumes along South Pullman Road at the I-40 Interchange. Therefore, the operation of the proposed Alternative Site 2 would have similar temporary moderate increases on traffic volumes as described for the Proposed Action Alternative. The Level of Service designation for roads and intersections near Alternative Site 2 are classified as Level A. Peak hours of vehicular traffic exhibit approximately 200 vehicles during the morning commute (11:00am to 12:00pm) and 210 vehicles during the mid-afternoon commute (3:00 – 4:00pm) (City of Amarillo 2008d). According to the City of Amarillo Traffic Engineering Department, the construction and operation of the AFRC Alternative Site 2 would have little to no effect on daily traffic or peak hour traffic volumes. Therefore, construction and operation of the AFRC would result in minimal to moderate adverse impacts on the traffic around the new Amarillo AFRC.

4.11.2.4 No Action Alternative

Under the No Action Alternative, there would be no effect on vehicle traffic at or around the existing USARC. Regional air and rail service would also be maintained at unchanged.

4.12 Utilities

4.12.1 Affected Environment

4.12.1.1 Potable Water Supply

The Amarillo USARC receives its drinking water supply from the City of Amarillo. The City of Amarillo maintains over 64,000 water meters and supplies an average of 40 to 50 million gallons per day (MGD), to business and private residences throughout the city's jurisdiction (City of Amarillo 2006). The City of Amarillo utilizes surface water from Lake Meredith while groundwater comes from the Ogallala Aquifer (City of Amarillo 2006).

4.12.1.1.1 Proposed Action Alternative
Currently, a 12-inch water main is available at the northwest corner of the preferred site.

4.12.1.1.2 Alternative Site 1
Currently an 8-inch water line is located adjacent to and along the western side of Fritch Highway. This line may me available to serve Alternative Site 1 provided a line can be installed to tie in to the main line.

4.12.1.1.3 Alternative Site 2
Currently potable water services available to serve Alternative Site 2 include a 10-inch water main along the northern property boundary, and a 6-inch water line to the east of the site adjacent to and along the west side of South Pullman Avenue. A fire hydrant also exists near the northeast portion of Alternative Site 2.

4.12.1.2 Wastewater System
4.12.1.2.1 Proposed Action Alternative
Currently, no wastewater infrastructure is located on the preferred site. A 10-inch wastewater line, which would be able to serve the AFRC, is located adjacent to the southeastern corner of the property (City of Amarillo 2008a).

The properties surrounding the preferred site discharge wastewater into the City of Amarillo's wastewater collection system, where it is transported and treated at the River Road wastewater treatment facility approximately 9 miles northwest of the preferred site (City of Amarillo 2008b). After the wastewater has been treated, it is sold and transported via pipes to Xcel Energy Plant for use in generating electricity to serve the City of Amarillo (City of Amarillo 2008b). A very small portion of treated wastewater is released into the Canadian River via Amarillo Creek (City of Amarillo 2008b). The River Road's system is capable of treating 16 MGD and is currently operating at approximately 60 percent capacity treating 10 MGD (City of Amarillo 2008b). Therefore, the River Road facility has more than sufficient capacity to treat the additional wastewater required by the proposed AFRC (City of Amarillo 2008b).

4.12.1.2.2 Alternative Site 1
Currently no wastewater services are available at Alternative Site 1. Wastewater service installation would be required to service this alternative site. Wastewater from this site would be delivered to the River Road wastewater treatment facility mentioned above in the proposed Action Alternative.

4.12.1.2.3 Alternative Site 2
Currently wastewater services are available via a 10-inch gravity wastewater line located adjacent to the west side of South Pullman Avenue due east of Alternative Site 2. An east/west oriented 8-inch gravity wastewater line is located adjacent to the southern boundary of Alternative Site 2. Wastewater from this site would be delivered to the River Road wastewater treatment facility mentioned above in the proposed Action Alternative.

4.12.1.3 Stormwater System
4.12.1.3.1 Proposed Action Alternative
A stormwater discharge permit from the TCEQ has not previously been issued for the Preferred Site, Alternative Site 1, or Alternative Site 2, nor has water management infrastructure been established on either site (City of Amarillo 2008c).

4.12.2 Consequences

4.12.2.1 Proposed Action Alternative

Construction and operation of the proposed AFRC facility at the preferred site would have temporary and minimal effects on the city's potable water supply, wastewater treatment system, and stormwater discharges. Construction crews would bring water on-site for their personnel, and portable latrines would collect sanitary waste. Since the site is greater than 1 acre, a Stormwater Discharge Permit for General Construction would be required prior to construction. This permit would require that a SWPPP and Notice of Intent be prepared and filed with the EPA through the TCEQ. The SWPPP would identify BMPs that are required to be implemented to control stormwater erosion and runoff from the site and sedimentation into downstream areas during and after construction. Upon completion of the construction activities, all disturbed areas that are not going to be landscaped and routinely maintained should be reseeded with native vegetation, in compliance with Section 7(a)(1) of the ESA and the 90th RRC's INRMP.

Operation of the AFRC would not result in increases in demand on the city's drinking water supply and wastewater treatment system, since the units would be relocated from the Tharp USARC, located only 6 miles away. As indicated above, there is sufficient capacity with both supply and treatment systems to accommodate the proposed construction and operation of the AFRC.

4.12.2.2 Alternative Site 1

Since Alternative Site 1 is located within the same county, the construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action Alternative.

4.12.2.3 Alternative Site 2

Since Alternative Site 2 is located within the same county, the construction and operation of the proposed AFRC at this site would result in similar impacts as described above for the Proposed Action Alternative.

4.12.2.4 No Action Alternative

Under the No Action Alternative, no construction of the AFRC facility would occur; thus, no effects would occur on the city's stormwater system or existing discharges. Furthermore, no additional demands, temporary or long-term, on Amarillo's water supply or wastewater treatment systems would occur under this alternative.

4.13 Hazardous and Toxic Substances

4.13.1 Affected Environment

4.13.1.1 Proposed Action Alternative

The Preferred Alternative site is currently a vacant grassed field, and no hazardous or toxic substances are known to be present. An Environmental Condition of Property (ECP) assessment was made of the preferred site and no *recognized environmental conditions* were identified. However, historic textile mill operations adjoining the site are suspect of degrading the environment and could pose a business environmental risk (U.S. Army 2008).

4.13.1.2 Alternative Site 1

No surveys were conducted at this site; however, existing conditions are anticipated to be similar to the preferred site. If this site is ultimately selected an ECP assessment would be required.

4.13.1.3 Alternative Site 2

No surveys were conducted at this site. Existing conditions are anticipated to be similar to the preferred site, with the exception of an abandoned/closed gasoline station near the northeast corner of Alternative Site 2. If this site is ultimately selected an ECP assessment would be required.

4.13.2 Environmental Consequences

4.13.2.1 Proposed Action Alternative

BMPs would be implemented as standard operating procedures during all construction activities, and would include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts on surface waters from hazardous and regulated materials, all fuels, waste oils, and solvents would be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery would be completed following accepted industry guidelines, and all vehicles would have drip pans during storage to contain minor spills and drips. Although a major spill is unlikely to occur, any spill of reportable quantities would be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular, pillow, sock, etc.) would be used to absorb and contain the spill. All spills would be reported to the designated site environmental manager point of contact for the project.

All equipment maintenance, laydown, and dispensing of fuel, oil, or any other such activities, would occur in areas identified for those purposes. The designated areas would be located in such a manner as to prevent any runoff from entering waters of the U.S, including wetlands. All used oil and solvents would be recycled if possible.

Solid waste receptacles would be maintained at the Project site, and non-hazardous solid waste (trash and waste construction materials) would be collected and deposited in on-site receptacles. Waste materials and other discarded materials contained in these receptacles would be removed from the site as quickly as possible. Solid waste would be collected and disposed of properly.

As indicated previously, a SWPPP would be developed by the project contractor for the area affected during construction procedures. The SWPPP would include BMPs to control erosion and fugitive dust emissions, including the use of silt fencing and hay bales adjacent to open water, such as the canals, and dust suppression by watering haul roads and construction areas. Operation of the proposed AFRC at the preferred site would not involve the use of hazardous or toxic substances in quantities that would require permitting by state or Federal regulatory agencies. However, if the TXARNG units relocate to the site, a 2,500-gallon diesel fuel truck would be temporarily stored on-site. No significant impacts due to the presence or use of hazardous or toxic substances would occur upon implementation of the Proposed Action Alternative.

4.13.2.2 Alternative Site 1

The construction and operation of the proposed AFRC at this site would be expected to result in similar impacts as described above for the Proposed Action Alternative. If Alternative Site 1 is ultimately selected, supplemental NEPA documentation and surveys would be required to fully assess the potential impacts relative to hazardous or toxic wastes.

4.13.2.3 Alternative Site 2

The construction and operation of the proposed AFRC at this site would be expected to result in similar impacts as described above for the Proposed Action Alternative. If Alternative Site 2 is ultimately selected, supplemental NEPA documentation and surveys would be required to fully assess the potential impacts relative to hazardous or toxic wastes.

4.13.2.4 No Action Alternative

No impacts due to hazardous or toxic substances would occur, since there would be no new construction of an AFRC on the site.

4.14 Cumulative Effects Summary

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

The preferred site and the lands surrounding the site have been used extensively for agricultural, residential, and light industrial purposes for decades; as such, the site is and has been disturbed. The proposed construction and operation of the AFRC would increase the developed areas in the project area by 12 acres, and remove another 13 acres from other potential uses. Operation of the AFRC would result in no or negligible cumulative impacts on training ranges or air space, ambient noise levels, water quality or supply, and air quality. Transportation routes and demands would be increased, primarily on the weekends when most or all of the Reserve Units would arrive. According to Amarillo's Planning Department (Myer 2008), no plans for development or other improvements are known for this site and the surrounding lands. Thus, the establishment of the AFRC would have insignificant cumulative impacts on land use or biological resources at and surrounding the preferred site.

Cumulative effects on air quality from the Proposed Action Alternative, when combined with other on-going projects, would be insignificant and would remain below *de minimis* thresholds. Operation of the AFRC would add to the cumulative amount of hazardous wastes generated in the project area. However, all wastes are disposed by licensed contractors in accordance with state and Federal regulations; consequently, insignificant cumulative adverse impacts would be expected.

If, at some point, USAR requires expansion of the AFRC to accommodate additional units or other mission support requirements, the remaining 13 acres could be developed. Similar impacts on the human and natural environment would occur, and would be addressed in supplemental NEPA documents, as appropriate. Still, the alteration of 25 acres of disturbed grassland would not result in significant cumulative impacts on any of the identified resources.

4.15 Best Management Practices

This section of the EA describes those measures that could be implemented to further reduce or eliminate potential adverse impacts on the human and natural environment. These BMPs are presented for each resource category that could be potentially affected. These proposed measures would be coordinated through the appropriate regulatory agencies.

4.15.1 Vegetation and Wildlife

Native seeds or plants, which are compatible with the enhancement of protected species and wildlife species in general, would be used to the extent feasible, to reseed temporarily disturbed areas once construction is complete. This effort would primarily apply to those areas that would not be expected to be part of the permanent landscaped or maintained areas of the AFRC. A list of native species compatible with the Amarillo area is included in the TPWD letter contained in Appendix C.

The Migratory Bird Treaty Act (MBTA) requires that private contractors obtain a construction permit if the construction activity is scheduled during the nesting season. The nesting season for this area is typically March 15 through September 15. Active nests would need to be identified and avoided to the extent practicable. Another environmental protective measure that would be considered is to schedule all construction activities outside the nesting season.

If migratory bird surveys are conducted, biologists will also be cognizant of the potential presence of Texas horned lizards and document whether any are located on-site. During construction, any Texas horned lizards that are observed should be allowed to leave the site on their on volition, or be relocated by a permitted biologist.

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

4.15.2 Air Quality

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

4.15.3 Water Resources

The proposed construction activities would require a SWPPP, which would be prepared and submitted to the TCEQ and EPA, as part of the TPDES permit process. The SWPPP would identify BMPs that would be implemented before, during, and after construction.

4.14.4 Cultural Resources

Prior to construction, the Army would brief the construction crews on procedures to follow in case of an unexpected discovery of cultural resources. If any cultural resources are uncovered during construction, the Army and the THC would be notified, and all construction activities would stop until a qualified archaeologist can assess the significance of the cultural remains. If human remains are encountered, the local coroner and law enforcement agency would be contacted. If the remains are of Native American origin, compliance with the Native American Graves and Repatriation Act regulations would be required.

4.15.5 Hazardous and Toxic Substances

Hazardous and toxic materials/wastes at the project site during construction would likely consist of petroleum, oils and lubricants (POL). If hazardous waste is generated, it would be disposed of according to Federal, state and local regulations, as well as existing Army regulations and procedures. No maintenance of construction equipment would be conducted on-site, minimizing the potential for spills or direct contact with POLs. Equipment and vehicles parked

overnight, or left for lengthy periods on-site, would be fitted with drip pans. On-site use of construction equipment, use of chemical products, and wastes generated during construction would comply with all Federal, state, and local regulations relating to protecting the environment from hazardous materials and containing spills. No large quantities of hazardous wastes would be stored on the site.

SECTION 5.0
Findings and Conclusions

5.0 Findings and Conclusions

5.1 Findings

5.1.1 Consequences of the Proposed Action Alternative

The Proposed Action Alternative would result in the permanent conversion of up to 12 acres of disturbed grassland to hard surfaces and buildings, and removal of another 13 acres from future private uses. The conversion is consistent with the City of Amarillo's zoning ordinances and does not conflict with the city's current development plans for the project area. No impacts on Federal or state protected species would occur. No violations of air or water quality standards would be expected; BMPs would be implemented to ensure stormwater, during and after construction, is controlled and downstream sedimentation is either eliminated or is negligible. Temporary increases in noise would be expected during the construction. Vehicle transportation on local roadways would be increased during and after construction. Approximately 10 to 15 full-time employees are expected to commute to the AFRC on a daily basis. Most of the increases in traffic associated with the AFRC would occur on weekends, however. No long-term impacts relative to utilities or hazardous waste and materials would be expected from the proposed construction and operation of the AFRC.

Some benefits for local and regional employment and personal income would be expected during the construction. However, these benefits would be insignificant when compared to the Amarillo Metropolitan Area. A summary of the potential effects from the Proposed Action Alternative and No Action Alternative is presented in Table 5-1 on the following page.

Table 5-1. Summary Matrix of Potential Impacts

Affected Resource	No Action Alternative	Proposed Action Alternative
Land Use	No impacts on land use are expected.	Up to 12 acres of disturbed grassland would be converted to the facility and parking areas. The facility is consistent with the City of Amarillo's zoning and planned development.
Aesthetics	No adverse impacts are expected.	Slight degradation during construction, but no significant long-term impacts would occur on the project area's visual qualities.
Air Quality	No adverse effects are anticipated.	Negligible temporary effects on air quality during construction would occur. Pre-project conditions would return upon cessation of construction activities. All emissions would be below *de minimis* thresholds.
Noise	No adverse impacts are expected.	Negligible temporary increases in ambient noise levels during construction. Pre-project conditions would return upon cessation of construction activities. Due to the distance to other noise receptors, construction in the northwestern portion of the site would be limited to day-time weekdays. Operation of the facility would be expected to produce negligible increases in ambient noise levels.
Soils	No impacts on soils are expected.	Up to 12 acres of soil would be disturbed and permanently removed from potential biological and agricultural productivity. Concurrence that the loss of 12 acres of prime farmland soils would be insignificant relative to the rest of Potter County has been requested from NRCS.
Water Resources	No adverse impacts would occur.	No significant impact on the region's water supply or water quality. No potentially jurisdictional wetlands occur on the preferred site.

Table 5-1, continued

Affected Resource	No Action Alternative	Proposed Action Alternative
Biological Resources	No impacts are expected.	Up to 12 acres of disturbed grassland would be permanently removed. No effects on threatened or endangered species would occur.
Cultural Resources	No effects are anticipated.	No impacts are expected.
Socioeconomics	No effect on the regional or local economy would be expected.	Negligible temporary, but beneficial, effects for the City of Amarillo during construction.
Transportation	No adverse impacts are expected.	Slight increase in local traffic along Fritch Highway and NE 24th Avenue during construction; no major congestion is expected. Traffic would be increased (by less than 1.5 percent) on these same streets once the relocation is complete.
Utilities	No adverse impacts are expected.	Slight increase in the demands on the City of Amarillo's public systems. More than sufficient capacity is available to meet these demands.
Hazardous Materials	No adverse impacts are expected.	No impacts are expected to occur.

5.1.2 Consequences of the No Action Alternative

Under the No Action Alternative, the existing human and natural environment at the preferred site would remain unchanged, at least for the short-term. Since the area is under private ownership and is currently used as rangeland, there is a possibility that the proposed project site could be developed at some point in the future.

5.2 Conclusions

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

SECTION 6.0
List of Preparers

6.0 List of Preparers

The following people were primarily responsible for preparing this Environmental Assessment.

NAME	AGENCY/ORGANIZATION	DISCIPLINE/EXPERTISE	EXPERIENCE	ROLE IN PREPARING EA
Larry Olliff	USACE Mobile/Savannah District	Environmental Studies	7 years in NEPA and 18 years in environmental studies	USACE Technical Manager
Suna Adam Knaus	GSRC	Forestry/Wildlife	19 years natural resources	EA review
Chris Ingram	GSRC	Biology/Ecology	33 years NEPA and natural resources	Project Manager, DOPAA, biological resources
Eric Webb, Ph.D.	GSRC	Ecology/Wetlands	19 years natural resources and NEPA Studies	EA Technical Review
John Lindemuth	GSRC	Archaeology	16 years Professional Archaeologist/Cultural Resources	EA preparation; cultural resources
Steve Oivanki, RPG	GSRC	Geology/Soils	33 years geological and NEPA studies	EA preparation; soils
Shanna McCarty	GSRC	Ecology	2 years NEPA and natural resources	EA preparation; socioeconomics
Steve Kolian	GSRC	Environmental Studies	13 years environmental and marine science	EA preparation; air and water quality
Curt Schaeffer	GSRC	Wetlands/Biological	7 years wetlands and NEPA studies	EA preparation; utilities and hazardous waste
Carey Perry	GSRC	Biology/Ecology	1 year natural resources	EA preparation; land use, aesthetics; water resources
Ron Webster	Ray Clark Group, LLC	Socioeconomics/Civil Engineering	35 years NEPA studies and socioeconomic analyses	EIFS modeling and analysis

THIS PAGE LEFT INTENTIONALLY BLANK

SECTION 7.0
References

7.0 References

Albaugh, Donald SGT. 2008. Personal communication between SGT Albaugh, 974th Quartermaster Company, USAR, and Mr. Chris Ingram, Gulf South Research Corporation, Baton Rouge, Louisiana on 7 August 2008.

Bartlett, R.D. and Patricia P. Bartlett. 1999. A Field Guide to Texas Reptiles and Amphibians. 331 pp. Gulf Publishing Company, Houston, Texas.

Bureau of Economic Analysis (BEA). 2006a. BEARFACTS 1996-2006 for the State of Texas. Internet URL: http://www.bea.gov/regional/BEARFACTS/. Last Accessed: 31 July 2008.

BEA. 2006b. BEARFACTS 1996-2006 for Potter County, Texas. Internet URL: http://www.bea.gov/regional/BEARFACTS/. Last Accessed: 31 July 2008.

BEA. 2006c. 2006 Total Employment by Sector for Potter County, Texas. Internet URL: http://www.bea.gov. Last Accessed: 31 July 2008.

BEA. 2001. 2001 Total Employment by Sector for Potter County, Texas. Internet URL: http://www.bea.gov. Last Accessed: 31 July 2008.

California Department Transportation. 1998. Technical Noise Supplement by the California Department of Transportation Environmental Program Environmental Engineering-Noise, Air Quality, and Hazardous Waste Management Office. October 1998 Page 24-28.

City of Amarillo. 2006. 2006 Water Quality Report. 4 pp.

City of Amarillo 2008a. Phone conversation with Steve Miller regarding wastewater infrastructure on the Preferred AFRC site. August 11, 2008.

City of Amarillo 2008b. Phone conversation with Jim Stover (Supervisor, River Road Water Treatment Facility) regarding wastewater infrastructure on the Preferred AFRC site. August 11, 2008.

City of Amarillo 2008c. Phone conversation with Isaac Rangel regarding stormwater infrastructure on the Preferred AFRC site. August 11, 2008.

City of Amarillo 2008d. Phone conversation and e-mail correspondence with Taylor Withrow regarding traffic volume and Level of Service on the Preferred and Alternative AFRC sites. September 15, 2008.

Davis, William B. 1974. The Mammals of Texas. Texas Parks and Wildlife Department Bulletin No. 41. TPWD, Austin Texas.

Environmental Protection Agency (EPA). 2001. Procedures Document for National Emission Inventory, Criteria Air Pollutants 1985-1999. EPA-454/R-01-006. Office of Air Quality Planning and Standards Research Triangle Park NC 27711.

EPA. (2005a). Emission Facts: Average In-Use Emissions from Heavy Duty Trucks. EPA 420-F-05-0yy, May 2005.

EPA. (2005)b. EPA Emission Facts: Average In-Use Emission Factors for Urban Buses and School Buses. Office of Transportation and Air Quality EPA420-F-05-024 August 2005.

EPA. (2005c). Emission Facts: Average Annual Emissions and Fuel Consumption for Gasoline-Fueled Passenger Cars and Light Trucks. EPA 420-F-05-022.

EPA. 2008 Welcome to the Green Book Nonattainment Areas for Criteria Pollutants www.epa.gov/oar/oaqps/greenbk.

Federal Highway Administration (FHWA). 2007. Special Report: Highway Construction Noise: Measurement, Prediction, and Mitigation, Appendix A Construction Equipment Noise Levels and Ranges. www.fhwa.dot.gov/environment/noise/highway/hcn06.htm.

Natural Resources Conservation Service (NRCS). 2008. Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app.

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

Myer, Dustin. 2008. Personal communication between Mr. Myer, City of Amarillo Planning Department, and Ms. Carey L. Perry, Gulf South Research Corporation, Baton Rouge, Louisiana, on 7 August 2008.

Real Estate Center. 2008. Potter County, Texas, Unemployment. URL: http://recenter.tamu.edu/Data/empc/LAUCN483750.htm. Last Accessed July 29, 2008.

Texas Commission on Environmental Quality. 2004. Permit to Discharge Wastes. TPDES Permit Number 10392-003. 63 pp.

Texas Water Development Board (TWDB). 2007. State Water Plan. Chapter 7: Groundwater Resources. Access online August 4, 2008.

Texas Department of Transportation. 2004. Potter County, Texas Traffic Map 2004.

Texas Parks and Wildlife Department (TPWD). 1984. The Vegetation Types of Texas. http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_bn_w7000_0120.pdf.

TWPD. 2008a. Wildlife Fact Sheets. http://www.tpwd.state.tx.us/huntwild/wild/species/. Last modified on April 11, 2007.

TPWD. 2008b. Annotated County Lists of Rare Species. List accessed on 25 July 2008 at the following URL: http://www.fws.gov/southwest/es/EndangeredSpecies/lists/ListSpecies.cfm.

Tracer. 2008. Texas Annual Unemployment Data. http://www.tracer2.com/cgi/dataanalysis/labForceReport.asp?menuchoice=LABFORCE. Last Accessed July 29, 2008.

U.S. Army. 2008. Environmental Condition of Property. 25 Acres of Unimproved Land, 4700 (Block) Northeast 24th Avenue, Amarillo, Potter County, Texas. Report prepared by Terraine-EnSafe 8(a) Joint Venture for the U.S. Army Corps of Engineers, Louisville District, under Contract No. W912QR-04-D-0044, Delivery Order No. 0012, August 13, 2008.

U.S. Census Bureau. 2005. Small Area Income and Poverty Estimates for Potter County, Texas, and the United States. http://www.census.gov/cgi-bin/saipe/saipe.cgi. Last Accessed 29 July 2008.

U.S. Census Bureau. 2006a. State & County Quickfacts – Amarillo, Texas. Internet resource: http://quickfacts.census.gov/qfd/states/48/4803000.html. Last accessed: July 30, 2008.

U.S. Census Bureau. 2006b. American Factfinder for the State of Texas. Internet URL: http://factfinder.census.gov/. Last Accessed July 29, 2008.

U.S. Environmental Protection Agency (USEPA). 2005. User's Guide for the Final NONROAD2005 Model. EPA420-R-05-013 December 2005.

U.S. Fish and Wildlife Service. 2008. Endangered Species List. Accessed on line on 25 July 2008 at: http://www.fws.gov/southwest/es/EndangeredSpecies/lists/ListSpecies.cfm

U.S. Geologic Survey (USGS). 2008. High Plains Regional Groundwater Study. Accessed online August 5, 2008: http://co.water.usgs.gov/nawqa/hpgw/factsheets/DENNEHYFS1.html.

U.S. Housing and Urban Development (HUD). 1984. 24 CFR Part 51 - Environmental Criteria and Standards Sec. 51.103 Criteria and standards 44 FR 40861, July 12, 1979, as amended at 49 FR 12214, Mar. 29, 1984.

THIS PAGE LEFT INTENTIONALLY BLANK

SECTION 8.0
Acronyms and Abbreviations

8.0 Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
AFRC	Armed Forces Reserve Center
ASIV	Available Site Identification and Validation
AT/FP	anti-terrorism/force protection
BEA	Bureau of Economic Analysis
BMP	best management practices
BNSF	Burlington Northern Santa Fe Railroad
BRAC Commission	Defense Base Closure and Realignment Commission
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon monoxide
CWA	Clean Water Act
dB	decibel
dBA	decibels A-weighted scale
DNL	Day-Night Level
DoD	Department of Defense
EA	Environmental Assessment
ECHO	Enforcement and Compliance History Online
EIFS	Economic Impact Forecast System
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FNSI	Finding of No Significant Impact
FY	Fiscal Year
HVAC	heating, ventilation, and air conditioning
I	Interstate
INRMP	Integrated Natural Resources Management Plan
MBTA	Migratory Bird Treaty Act
MGD	million gallons per day
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
O_3	Ozone
PCPI	per capita personal income
PM-10	particulate matter less than 10 microns
PM-2.5	particulate matter less than 2.5 microns
POL	petroleum, oils, and lubricants
ROI	region of influence
RRC	Regional Readiness Command
SF	square feet
SHPO	State Historic Preservation Officer
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan

TASA	Texas Archaeological Site Atlas
TCEQ	Texas Commission on Environmental Quality
THC	Texas Historical Commission
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
TWDB	Texas Water Development Board
TXARNG	Texas Army National Guard
TPI	total personal income
TxDOT	Texas Department of Transportation
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
USGS	U.S. Geologic Survey

APPENDIX A
ASIV Site Survey Report

DEPARTMENT OF THE ARMY
ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
600 ARMY PENTAGON
WASHINGTON DC 20310-2400

REPLY TO
ATTENTION OF

DAIM-ODR

16 OCT 07

MEMORANDUM FOR U.S. Army Corps of Engineers, Louisville District (CELRL-RE), P.O. Box 59, Louisville, KY 40201-0059

SUBJECT: Site Approval for Armed Forces Reserve Center (AFRC) Site at Amarillo, TX – FY 2009 Base Realignment and Closure Army Reserve Construction Project

1. Reference Memorandum 90TH Regional Readiness Command, ARRC-CAR-ENP, 21 September 2007, subject: Site Survey Report (SSR), Amarillo, Texas, enclosure 1.

2. Request you acquire an option on site # 2, two tracks of land, approximately 25± acres located northeast 24th Avenue, between Grand and Eastern Street, Amarillo, Texas as identified in the Site Survey Report. Site 2 is the primary site for the Army Reserve Base Realignment and Closure (BRAC) Fiscal Year 09 Military Construction project Number 64386. Approximately 25± acres are required because of the land configuration. The total asking price for the 25± acres is $152,000. Site # 1 is the approved secondary site. The purchase option will allow the Army time to accomplish the appropriate Environmental and Engineering Feasibility studies to determine its suitability for the BRAC construction project prior to acquisition authorization. If the land is determined to be suitable the COE will be directed to purchase the land in fiscal year 08 because the acquisition price is less than $750,000. In addition, request a Real Estate Planning Report (REPR) be completed for this acquisition.

3. My POCs are LTC Ross Nguyen, DAIM-ODR, 703-602-5834, ross.nguyen@hqda.army.mil and for Real Estate it is Mr. Ron Edwards, J.M. Waller Associates, contractor, DAIM-ODR, 803-393-8961, Ronald.l.edwards1@us.army.mil.

FOR THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT

H.T. LANDWERMEYER JR.
Brigadier General, U.S. Army
Director, Operations

Encl
as

CF:
IMAR (Mr. Al Golden)
90th RRC (Ms Rachel White)
HQUSACE (CERE-AM/Ms. Peggy Mahoney)
OACSIM (DAIM-ODB/Ms. Renee Terrell/Mr. Ken Harris)

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

ARRC-CAR-ENP

21 September 2007

Headquarters, Department of the Army, Assistant Chief of Staff for Installation Management, ATTN: DAIM-AR (Ms. Chuck), 600 Army Pentagon, Washington, DC 20310-0600

SUBJECT: Site Survey Report (SSR) Amarillo, Texas

1. Enclosed is the Site Survey Report (SSR) pertaining to the acquisition of twelve (12) (+or-) acres site to support an FY 2009 BRAC Military Construction Army Reserve (MCAR) project (Project Number 64386) to construct an 600 Member Armed Forces Reserve Center in Amarillo, Texas, for the 90th RRC and the Texas Army National Guard. The new facility will contain an AFRC building with 105,131 square feet of space, a Multi-use Classroom with 7,300 square feet, a Vehicle Maintenance Shop with 5,650 square feet, and an Organizational Unit Storage facility with 2,265 square feet. Based on the center rating and in accordance with AR 140-483, Army Reserve Land and Facilities Management, a twelve (12) net useable acre site will be required for the AFRC project. A minimum width of 500 linear feet is required for any referred property to meet Anti-Terrorist Force Protection (ATFP) requirements.

2. The 2005 Defense Base Realignment and Closure (BRAC) Commission recommended closure of the Tharp United States Army Reserve Center, Amarillo, Texas, and relocation of the units to a new Armed Forces Reserve Center in Amarillo, Texas. The BRAC commission also recommended the new AFRC have the capability to accommodate Texas Army National Guard units from Texas Army National Guard Readiness Centers in Amarillo, Pampa, and Hale Co, TX, if the state decides to relocate those National Guard units.

3. A Site Survey Team (SST) convened in Amarillo on 19 September 2007 to visit and evaluate the sites identified in the Available Site Identification and Validation report prepared by the Fort Worth Corps of Engineer District. A list of the SST participants is attached at enclosure 1 to the SSR. The ASIV was provided electronically to the 90th RRC as well as to IMA-AR and ACSIM-AR. The ASIV contains site data sheets for each site referred, topography maps, and photographs of each site as well as detailed location maps. Therefore the ASIV document is not included as an enclosure to this Site Survey Report. Recipients of this correspondence should download the electronic ASIV for Amarillo, Texas; attach this memorandum and the enclosed Site Survey

Report to their copy of the ASIV as a cover sheet. The 90th RRC concurs with the recommendations of the Site Survey Team (SST) that Site Number 2 be pursued as the Primary Site for acquisition and that Site Number 1 be pursued as an Alternate Site.

4. After approval for acquisition is granted, request you inform the Louisville Corps of Engineers to pursue a purchase option immediately, prepare a Real Estate Planning Report (REPR) and Engineering Feasibility Study (EFS). Louisville Corps of Engineers should also pursue acquisition of the appropriate environmental documentation. Ms. Rachel White, (AC 501-771-8927), 90th Regional Readiness Command (RRC) established and chaired the Site Survey Team (SST). BRAC Planning and Design funds will be used to fund this project. Major Gregory Scott is the MILCON POC for this project (AC 703-601-1937).

FOR THE DCSARIM:

Ronald D. Hancock
BRAC Transition Coordinator

Enclosures
as

CF: w/Encls
Installation Management Command, Army Reserve, ATTN: Mr. Alfonzo Golden, 2511 Jefferson Davis Highway, Taylor Building 10th Floor, Arlington, VA 22202-3926
Cdr, USACE, ATTN: CERE-AM (Ms. Mahoney)
Cdr, Fort Worth Corps of Engineer District, ATTN: CESWF-Real Estate (Ms Hyla Head)
Site Survey Team Members

AMARILLO, TEXAS
SITE SURVEY REPORT
19 September 2007

1. This site survey was conducted on 19 September 2007 to evaluate and select a suitable twelve (12) (+or-) acre site to support an FY 2009 BRAC Military Construction Army Reserve (MCAR) project (Project Number 64386) to construct an 600 Member Armed Forces Reserve Center in Amarillo, Texas, for the 90th RRC and the Texas Army National Guard. The new facility will contain an AFRC building with 105,131 square feet of space, a Multi-use Classroom with 7,300 square feet, a Vehicle Maintenance Shop with 5,650 square feet, and an Organizational Unit Storage facility with 2,265 square feet. Based on the center rating and in accordance with AR 140-483, Army Reserve Land and Facilities Management, a twelve (12) net useable acre site will be required for the AFRC project. A minimum width of 500 linear feet is required for any referred property to meet Anti-Terrorist Force Protection (ATFP) requirements.

2. The 2005 Defense Base Realignment and Closure (BRAC) Commission recommended closure of the Tharp United States Army Reserve Center, Amarillo, Texas, and relocation of the units to a new Armed Forces Reserve Center in Amarillo, Texas. The BRAC commission also recommended the new AFRC have the capability to accommodate Texas Army National Guard units from Texas Army National Guard Readiness Centers in Amarillo, Pampa, and Hale Co, TX, if the state decides to relocate those National Guard units.

3. A minimum width of 500 linear feet is required for any referred property to meet Anti-Terrorist Force Protection (ATFP) requirements. The 600 Member Armed Forces Reserve Center in Amarillo, Texas, will accommodate USAR Units from the 90th RRC and the Texas Army National Guard. A list of the Site Survey Team participants is attached as enclosure 1.

4. On 19 September 2007, Mr. Ronald Edwards, ACSIM-AR, a contract Real Estate Project Coordinator, JMWaller, presented a briefing to all team members prior to visiting the sites referred by the Fort Worth Corps of Engineer District. Team members were queried as to the acceptability of the sites contained in the ASIV to determine if any should be deleted for cause or to determine if any additional sites should be added for consideration. The following comments provide a summary of observations captured by the SST for each site visited; our comments are presented in the order of recommendation for acquisition from Primary Site and Alternate Site to the remaining sites visited but rejected from consideration.

a. **The Site Survey Team unanimously identified Site 2 as the Primary Site to be pursued for acquisition.** This site is composed of two (2) tracts of land

(Tracts 1 and 2 (19.019 Acres and 6.247 respectively)) with a combined total of twenty five (25) +or- acres. The site is accessed via North East 24th Avenue on the southern edge of the property and is located west of Fritch Highway. The Amarillo Water Pump Station is located on the western edge of the property and a warehouse is located on the eastern edge of the property. A residential housing area is located on the northern edge of the property. The entire neighborhood is a mixed use residential, warehouse, commercial retail services as well as a Catholic School further west on NE 24th Ave. All utilities are located along the frontage of NE 24th Ave. The site is flat with no apparent cut and fill requirements – or at least minimal. The total asking price for this site is $152K and the SST recommends the entire 25 acre site be acquired to provide the best suitable layout features possible. This recommendation is submitted for consideration by BRAC D because the site is the most suitable referred within the ASIV and moreover acquisition of the total acreage will preclude the landowner from having an un-economically remainder. Division of this site into two 12.5 acre sites could conceivable prove problematic in creating a useable site that meets ATFP setback requirements and will furthermore provide a buffer zone between the USAR Center and residential area on the north side of the property. An aerial photograph is attached for your perusal and depicts both the Primary Site (Site #2) and the First Alternate Site (Site #1). This site is located within five (5) miles of local restaurants and hotel/motel accommodations to support the drilling reservists. The following additional information is provided:

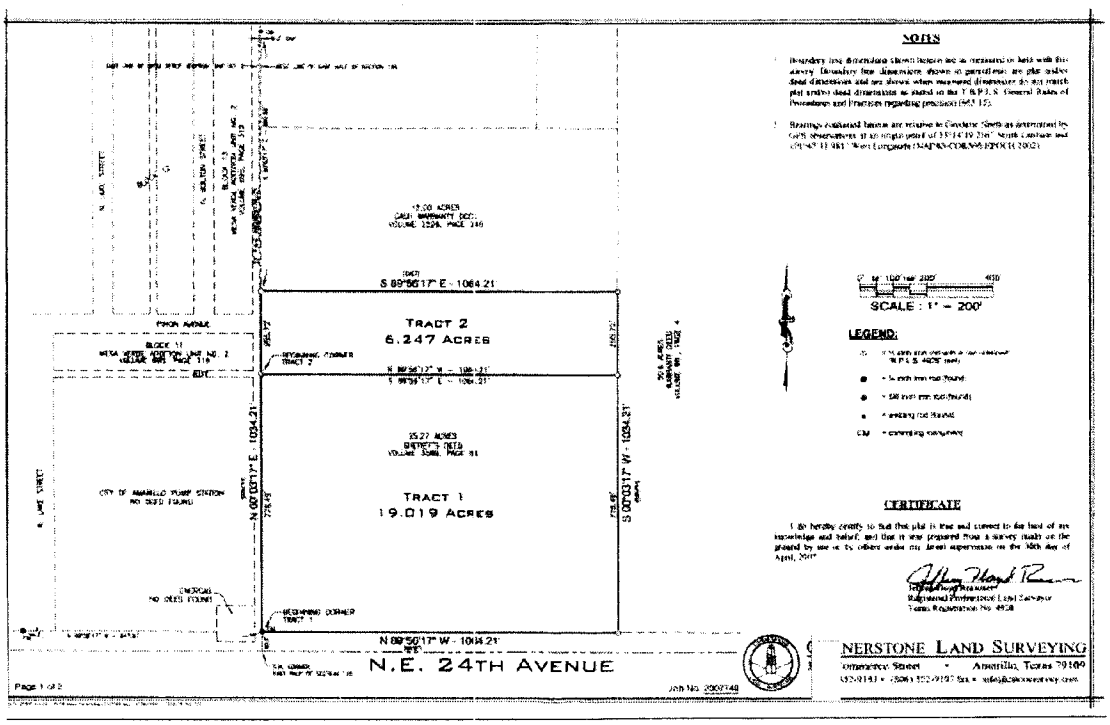
ASIV Site # 2 Data:
Contending Site

Address: NE 24th Avenue between Grand and Eastern Street, Amarillo, Texas 79107
Congressional District: 13th
Senior Senator: John Cornyn
Junior Senator: Kay Bailey Hutchison
Representative: Mac Thornberry
Site Access: Via I-40 and Loop 335
Authorized Representative Contact Information:
Forshey Hoobler
Southwest Corporate Services
The Staubach Company
15601 Dallas Parkway, Suite 400
Addison, Texas 75001
Direct: (972) 361-5293
Mobile: (214) 718-5680
E-mail: forshey.hoobler@staubach.com
J. Gaut, CCIM
J. Gaut & Associates
4211 I-40 West
Suite 204
Amarillo, Texas 76106
Phone #: 806-373-3111
E-mail: j@jgaut.com

Site Size: Entire gross land area available is approximately 25+ acres
Environmental Concerns Present: None
Flood Plan Data: FEMA Flood Zone C (Not in 100 year floodplain)
Utilities: All (Water, Power, and Sewer) located on site along frontage with immediate site access; must tie in.
Current Use: Vacant - unimproved
Buildings on Site: None
Relocation of Current Occupants Required: N/A
Demolition Required: N/A
Cut and fill Requirements: Minor
Zoning: Heavy Commercial
Fenced: No
Parking sufficient net useable land available: Sufficient parking available
Distance to nearest Fire Station: 5.09 miles
Distance to nearest Fire Hydrant: located across the street from the property
Distance to nearest Police Station/Extended Territorial Jurisdiction (ETJ): 4.80 miles
Subject to Easements: There are some road and utility easements (Title policy will be necessary)
Mineral Rights Reserved: unknown
Purchase Data:
Available Date: Available Immediately **Asking Price:** $151,620 (total)
Additional Comments: Located next to warehouses.

Contending - Site #2

Tracts 1 and 2 (19.019 Acres and 6.247 Respectively)



b. **The Site Survey Team unanimously identified Site 1 as the First Alternate Site to be pursued for acquisition.** This site provides a total of one hundred sixty (160) +or- acres and can be sub-divided. The site is accessed via Fritch Highway just east and north of NE 24th Ave. This large tract of land is surrounded by farmland currently under agricultural use. All utilities are located along the frontage of Fritch Highway. The site is flat with minimal cut and fill requirements. The total asking price for this site per acre is $1,650 or a total of $264K for twelve acres. It must be noted this amount is approximately $113K above the total asking price of the Primary Site (Site 2) ($152K) recommended by the SST for acquisition. This Alternate Site should be pursued only if the Primary Site cannot be acquired using BRAC D funding. As previously stated above, n aerial photograph is attached for your perusal and depicts both the Primary Site (Site #2) and the First Alternate Site (Site #2). This site is also located within five (5) miles of local restaurants and hotel/motel accommodations to support the drilling reservists. The following additional information is provided:

ASIV Site # 1 Data:
Contending Site

Address: NE 24th Avenue between N. Whitaker Road and N. Eastern Street, Amarillo, Texas 79107
Congressional District: 13th
Senior Senator: John Cornyn
Junior Senator: Kay Bailey Hutchison
Representative: Mac Thornberry
Site Access: Via Highway 121
Authorized Representative Contact Information:
Forshey Hoobler
Southwest Corporate Services
The Staubach Company
15601 Dallas Parkway, Suite 400
Addison, Texas 75001
Direct: (972) 361-5293
Mobile: (214) 718-5680
E-mail: forshey.hoobler@staubach.com
J. Gaut, CCIM
J. Gaut & Associates
4211 I-40 West
Suite 204
Amarillo, Texas 76106
Phone #: 806-373-3111
E-mail: j@jgaut.com
Site Size: Entire gross land area available is approximately 160 acres
Environmental Concerns Present: None
Flood Plan Data: FEMA Flood Zone C (Not in 100 year floodplain)
Utilities: All (Water, Power, and Sewer) located on site along frontage with

immediate site access; must tie in.
Current Use: Vacant - unimproved
Buildings on Site: None
Relocation of Current Occupants Required: N/A
Demolition Required: N/A
Cut and fill Requirements: Minor
Zoning: Agriculture
Fenced: Yes
Parking sufficient net useable land available: Sufficient parking available
Distance to nearest Fire Station: 5.83 miles
Distance to nearest Fire Hydrant: unknown
Distance to nearest Police Station/Extended Territorial Jurisdiction (ETJ): 5.54 miles
Subject to Easements: There are some road and utility easements (Title policy will be necessary)
Mineral Rights Reserved: unknown
Purchase Data:
Available Date: Available Immediately **Asking Price:** $1650.00 (per acre)

c. **The Site Survey Team unanimously identified Site 6 as the Second Alternate Site to be pursued for acquisition.** This site provides a total of one hundred sixty (160) +or- acres and can be sub-divided. The site is accessed via Interstate Highway 40 and is located just west of Pullman. This large tract of vacant land is surrounded by an abandoned Gas/Service Station – there are some concerns of possible environmental contamination from the service station. All utilities are located along the frontage of IH 40. The site is flat with minimal cut and fill requirements. There is an electrical easement that bi-sects the property and a gravel road has been "roughed in" that also bi-sects the property. There is a "water well house" located on the property. Both the well house and roughed in road can be seen on the attached aerial photograph of Site 6. This Second Alternate Site should be pursued only if the Primary and First Alternate Sites cannot be acquired using BRAC D funding. This site too located within five (5) miles of local restaurants and hotel/motel accommodations to support the drilling reservists. The total asking price of this fourteen (14) +or- site is $375K which exceeds the total asking price of the Primary Site recommended for acquisition. The following additional information is provided:

ASIV Site # 6 Data:
Contending Site
Address: Located before Pullman Road along Interstate 40, Amarillo, Texas 79118
Congressional District: 13th
Senior Senator: John Cornyn
Junior Senator: Kay Bailey Hutchison
Representative: Mac Thornberry
Site Access: Via I-40

Authorized Representative Contact Information:
Forshey Hoobler
Southwest Corporate Services
The Staubach Company
15601 Dallas Parkway, Suite 400
Addison, Texas 75001
Direct: (972) 361-5293
Mobile: (214) 718-5680
E-mail: forshey.hoobler@staubach.com
E. Ross Realty
Phone #: 806-679-7091
Site Size: Entire gross land area available is approximately 14 acres
Environmental Concerns Present: None
Flood Plan Data: FEMA Flood Zone C (Not in 100 year floodplain)
Utilities: All (Water, Power, and Sewer) located on site along frontage with immediate site access; must tie in.
Current Use: Vacant - unimproved
Buildings on Site: None
Relocation of Current Occupants Required: N/A
Demolition Required: N/A
Cut and fill Requirements: Minor
Zoning: Commercial, Residential
Fenced: No
Parking sufficient net useable land available: Sufficient parking available
Distance to nearest Fire Station: 8.85 miles
Distance to nearest Fire Hydrant: unknown
Distance to nearest Police Station/Extended Territorial Jurisdiction (ETJ): 8.56 miles
Subject to Easements: There are some road and utility easements (Title policy will be necessary)
Mineral Rights Reserved: unknown
Purchase Data:
Available Date: Available Immediately **Asking Price:** $375,000 (total)
Additional Comments: Located next to a service station that is out of service.

d. **The Site Survey Team unanimously rejected Site # 3 from consideration.** The estimated asking price of $850K far exceeds all other asking prices and the site is located contiguous to a "Gentleman's Club"

ASIV Site # 3 Data:
Contending Site

Address: Interstate 40 and Lakeside (Loop 335), Amarillo, Texas 79118
Congressional District: 13th
Senior Senator: John Cornyn
Junior Senator: Kay Bailey Hutchison
Representative: Mac Thornberry
Site Access: Via I-40 and Loop 335
Authorized Representative Contact Information:
Forshey Hoobler
Southwest Corporate Services
The Staubach Company
15601 Dallas Parkway, Suite 400
Addison, Texas 75001
Direct: (972) 361-5293
Mobile: (214) 718-5680
E-mail: forshey.hoobler@staubach.com
J. Gaut, CCIM
J. Gaut & Associates
4211 I-40 West
Suite 204
Amarillo, Texas 76106
Phone #: 806-373-3111
E-mail: j@jgaut.com
Site Size: Entire gross land area available is approximately 12.78 acres
Environmental Concerns Present: None
Flood Plan Data: FEMA Flood Zone C (Not in 100 year floodplain)
Utilities: All (Water, Power, and Sewer) located on site along frontage with immediate site access; must tie in.
Current Use: Currently used for auctions.
Buildings on Site: None
Relocation of Current Occupants Required: N/A
Demolition Required: N/A
Cut and fill Requirements: Minor
Zoning: Light Industrial
Fenced: Yes
Parking sufficient net useable land available: Sufficient parking available
Distance to nearest Fire Station: 6.85 miles
Distance to nearest Fire Hydrant: located on the property
Distance to nearest Police Station/Extended Territorial Jurisdiction (ETJ): 6.56 miles
Subject to Easements: There are some road and utility easements (Title policy will be necessary)
Mineral Rights Reserved: unknown

Purchase Data:
Available Date: Available Immediately **Asking Price:** $850,000 (total)
Additional Comments: Property is directly off of Interstate 40. There is a gentlemen's club located next to the property.

e. **The Site Survey Team unanimously rejected Site # 4 from consideration.** The estimated asking price of $3.00 per square foot or $1.6M far exceeds all other asking prices

ASIV Site # 4 Data:
Contending Site
Address: Immediately South of Highway 60, 1 mile east of Rick Husband International Airport, Amarillo, Texas 79111
Congressional District: 13th
Senior Senator: John Cornyn
Junior Senator: Kay Bailey Hutchison
Representative: Mac Thornberry
Site Access: Highway 60
Authorized Representative Contact Information:
Forshey Hoobler
Southwest Corporate Services
The Staubach Company
15601 Dallas Parkway, Suite 400
Addison, Texas 75001
Direct: (972) 361-5293
Mobile: (214) 718-5680
E-mail: forshey.hoobler@staubach.com
Joe Bob McCartt, CCIM & Ben Whittenburg
McCartt & Associates
600 S. Amarillo
Suite 2000
Amarillo, Texas 79101
Phone #: 806-342-9555
E-mail: ben@mccartt.net
Site Size: Entire gross land area available is approximately 80+ acres; sub dividable
Environmental Concerns Present: None
Flood Plan Data: FEMA Flood Zone C (Not in 100 year floodplain)
Utilities: All (Water, Power, and Sewer) located on site along frontage with immediate site access; must tie in.
Current Use: A vacant parcel in the Amarillo Technical College Training Center
Buildings on Site: On different portions of the property
Relocation of Current Occupants Required: N/A

Demolition Required: If the buildings on the property are not usable.
Cut and fill Requirements: Minor
Zoning: Industrial-1
Fenced: No
Parking sufficient net useable land available: Sufficient parking available
Distance to nearest Fire Station: 12.9 miles
Distance to nearest Fire Hydrant: located across the street from the property
Distance to nearest Police Station/Extended Territorial Jurisdiction (ETJ): 12.61 miles
Subject to Easements: There are some road and utility easements (Title policy will be necessary)
Mineral Rights Reserved: unknown
Purchase Data:
Available Date: Available Immediately **Asking Price:** Not Yet Priced (negotiable)
Additional Comments: Property located one mile east of Rick Husband International Airport.

f. **The Site Survey Team unanimously rejected Site # 5 from consideration.** The estimated asking price of $240K far exceeds the asking price of the Primary and both Alternate Sites recommended by the SST. The site is located with frontage on Interstate 40; however, the surrounding area has deteriorated and does not provide a suitable location for an Armed Forces Reserve Center.

ASIV Site # 5 Data:
Contending Site
Address: Pullman Road and Interstate 40, Amarillo, Texas 79118
Congressional District: 13th
Senior Senator: John Cornyn
Junior Senator: Kay Bailey Hutchison
Representative: Mac Thornberry
Site Access: Via I-40
Authorized Representative Contact Information:
Forshey Hoobler
Southwest Corporate Services
The Staubach Company
15601 Dallas Parkway, Suite 400
Addison, Texas 75001
Direct: (972) 361-5293
Mobile: (214) 718-5680
E-mail: forshey.hoobler@staubach.com
J. Gaut, CCIM
J. Gaut & Associates
4211 I-40 West

Suite 204
Amarillo, Texas 76106
Phone #: 806-373-3111
E-mail: j@jgaut.com
Site Size: Entire gross land area available is approximately 50 acres
Environmental Concerns Present: None
Flood Plan Data: FEMA Flood Zone C (Not in 100 year floodplain)
Utilities: All (Water, Power, and Sewer) located on site along frontage with immediate site access; must tie in.
Current Use: Vacant - unimproved
Buildings on Site: None
Relocation of Current Occupants Required: N/A
Demolition Required: N/A
Cut and fill Requirements: Minor
Zoning: Agricultural District
Fenced: No
Parking sufficient net useable land available: Sufficient parking available
Distance to nearest Fire Station: 8.85 miles
Distance to nearest Fire Hydrant: unknown
Distance to nearest Police Station/Extended Territorial Jurisdiction (ETJ): 8.56 miles
Subject to Easements: There are some road and utility easements (Title policy will be necessary)
Mineral Rights Reserved: unknown
Purchase Data:
Available Date: Available Immediately **Asking Price:** $20,000 (per acre)

Assistant Chief of Staff for Installation Management, Army Reserve
Installation Management Agency, Army Reserve
Available Site Identification and Validation (ASIV)
SITE SURVEY TEAM MEMBERS ATTENDANCE ROSTER

DATE: Sept 19th 07

NAME	MAILING ADDRESS	DUTY POSITION	TELEPHONE NUMBERS	E-MAIL ADDRESS
Bill Benjamin	8000 Camp Robinson Rd 72119 North Little Rock AR	Real Property Specialist	W: (501) 771-7937 C: F:	william.benjamin20@us.army.mil
Michael Gaston	8000 CAMP Robinson Rd North Little Rock, AR.	Plans officer	W: 501-771-8380 C: 210-724-6598 F:	michael.e.Gaston@usar.army.mil
Sara Jackson	1763 Sorento Circle West Melbourne, FL 32904	IMCOM-AR Environmental Contractor	W: 321-725-0667 C: 321-890-3648 F: 321-725-7376	sara.jackson@us.army.mil
Debbie Cooper	310 Armed Forces Dr Grand Prairie Tx 75051	ARIM Dallas Field office AFOS	W: 972-343-4251 C: 210-724-6539 F: 972-343-4023	debra.cooper2@usar.army.mil
Dave Herberger	303 S Topeka Wichita, Kansas	Civil Engineer Professional Engineering Cons.	W: 316-262-2691 C: F: 316-262-3003	David.Herberger@PECI.com
Jean Dillon	P.O. Box 17300 Ft Worth, Tx 76102	Lead Realty Specialist	W: 817-886-1210 C: F:	jean.p.dillon@swf02.usace.army.mil
Vanesa Agosto	819 Taylor St. Rm 2B03 CESWF-RE-A Ft. Worth TX 76102	Realty Specialist	W: 817-886-1159 C: F:	vanesa.i.agosto@swf02.usace.army.mil
Ronald Edwards	934 CR 122 Floresville TX 78114	ACSIM-AR Real Estate Contractor	W: 830-393-8961 C: 210-347 2955 F:	Ronald.L.Edwards1@us.army.mil
			W: C: F:	
			W: C: F:	

Instructions: Enter the date of the meeting and capture Site Survey Team Members' Work, Cell, and Fax Telephone numbers for future contact purposes.

APPENDIX B
Air Emissions Calculations

CALCULATION SHEET-COMBUSTIBLE EMISSIONS-POTTER COUNTY

Assumptions for Combustible Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Water Truck	1	300	10	240	720000
Diesel Road Compactors	1	100	10	240	240000
Diesel Dump Truck	2	300	10	240	1440000
Diesel Excavator	1	300	10	240	720000
Diesel Hole Trenchers	2	175	10	240	840000
Diesel Bore/Drill Rigs	0	300	10	240	0
Diesel Cement & Mortar Mixers	2	300	10	240	1440000
Diesel Cranes	1	175	10	240	420000
Diesel Graders	1	300	10	240	720000
Diesel Tractors/Loaders/Backhoes	2	100	10	240	480000
Diesel Bull Dozers	1	300	10	240	720000
Diesel Front End Loaders	1	300	10	240	720000
Diesel Fork Lifts	2	100	10	240	480000
Diesel Generator Set	6	40	10	240	576000

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

CALCULATION SHEET-COMBUSTIBLE EMISSIONS-POTTER COUNTY

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

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Water Truck	0.349	1.642	4.356	0.325	0.317	0.587	425.284
Diesel Road Paver	0.098	0.391	1.296	0.090	0.087	0.196	141.814
Diesel Dump Truck	0.698	3.285	8.712	0.651	0.635	1.174	850.568
Diesel Excavator	0.270	1.031	3.650	0.254	0.246	0.587	425.522
Diesel Hole Cleaners\Trenchers	0.472	2.259	5.378	0.426	0.407	0.685	495.979
Diesel Bore/Drill Rigs	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Cement & Mortar Mixers	0.968	3.682	11.552	0.762	0.746	1.158	840.570
Diesel Cranes	0.204	0.602	2.647	0.157	0.153	0.338	245.398
Diesel Graders	0.278	1.079	3.753	0.262	0.254	0.587	425.522
Diesel Tractors/Loaders/Backhoes	0.979	4.343	3.819	0.725	0.704	0.503	365.564
Diesel Bull Dozers	0.286	1.095	3.777	0.262	0.254	0.587	425.522
Diesel Front End Loaders	0.302	1.230	3.967	0.278	0.270	0.587	425.443
Diesel Aerial Lifts	1.047	4.105	4.528	0.735	0.714	0.503	365.406
Diesel Generator Set	0.768	2.387	3.789	0.463	0.451	0.514	372.790
Total Emissions	**6.718**	**27.130**	**61.225**	**5.389**	**5.237**	**8.006**	**5805.381**

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET AFRC WEEKEND TRAINING COMMUTE

Weekend Training AFRC Commute to New Site									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of Cars	Number of trucks	Total Emissions cars tons/yr	Total Emissions Trucks tons/yr	Total tons/yr
VOCs	1.36	1.61	30	51	50	50	0.11	0.14	0.25
CO	12.4	15.7	30	51	50	50	1.05	1.32	2.37
NOx	0.95	1.22	30	51	50	50	0.08	0.10	0.18
PM-10	0.0052	0.0065	30	51	50	50	0.00	0.00	0.00
PM 2.5	0.0049	0.006	30	51	50	50	0.00	0.00	0.00

Truck Emission Factor Source: USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway vehicle emission factor model.

CALCULATION SHEET-TRANSPORTATION COMBUSTIBLE EMISSIONS-POTTER COUNTY

Construction Worker Personal Vehicle Commuting to Construction Sight-Passenger and Light Duty Trucks									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tons/yr	Total Emissions Trucks tons/yr	Total tons/yr
VOCs	1.36	1.61	120	240	20	20	0.86	1.02	1.89
CO	12.4	15.7	120	240	20	20	7.87	9.97	17.84
NOx	0.95	1.22	120	240	20	20	0.60	0.77	1.38
PM-10	0.0052	0.0065	120	240	20	20	0.00	0.00	0.01
PM 2.5	0.0049	0.006	120	240	20	20	0.00	0.00	0.01

-

Heavy Duty Trucks Delivery Supply Trucks to Construction Sight									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	10,000-19,500 lb Delivery Truck	33,000-60,000 lb semi trailer rig	Mile/day	Day/yr	Number of trucks	Number of trucks	Total Emissions Cars tons/yr	Total Emissions Trucks tons/yr	Total tons/yr
VOCs	0.29	0.55	60	240	2	2	0.01	0.02	0.03
CO	1.32	3.21	60	240	2	2	0.04	0.10	0.14
NOx	4.97	12.6	60	240	2	2	0.16	0.40	0.56
PM-10	0.12	0.33	60	240	2	2	0.00	0.01	0.01
PM 2.5	0.13	0.36	60	240	2	2	0.00	0.01	0.02

Daily AFRC Commute to New Site									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of Cars	Number of trucks	Total Emissions cars tons/yr	Total Emissions Trucks tons/yr	Total tons/yr
VOCs	1.36	1.61	30	240	8	8	0.09	0.10	0.19
CO	12.4	15.7	30	240	8	8	0.79	1.00	1.78
NOx	0.95	1.22	30	240	8	8	0.06	0.08	0.14
PM-10	0.0052	0.0065	30	240	8	8	0.00	0.00	0.00
PM 2.5	0.0049	0.006	30	240	8	8	0.00	0.00	0.00

Truck Emission Factor Source: USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway vehicle emission factor model.

CALCULATION SHEET-FUGITIVE DUST-POTTER COUNTY

Fugitive Dust Emissions at New Construction Site.					
Construction Site	**Emission Factor tons/acre/month (1)**	**Total Area-Construction/month**	**Months/yr**	**Total PM-10 Emissions tons/yr**	**Total PM-2.5 (2)**
Fugitive Dust Emissions	0.11	12.00	12	15.84	3.17

1. Environmental Protection Agency (EPA) 2001. Procedures Document for National Emission Inventory, Criteria Air Pollutants 1985-1999. EPA-454/R-01-006. Office of Air Quality Planning and Standards Research Triangle Park NC 27711.

2. 20% of the total PM-10 emissions are PM-2.5 (EPA 2001).

Construction Site Area	**Dimensions (ft)**			**Total**
Proposed Project	**Length**	**Width**	**Units**	**Acres/month**
Construction Area	**0**	**0**	**1**	**12.00**
Total				**12.00**

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

CALCULATION SHEET-SUMMARY OF EMISSIONS-POTTER COUNTY

Proposed Action Construction Emissions for Criteria Pollutants (tons per year)						
Emission source	VOC	CO	NOx	PM-10	PM-2.5	SO_2
Combustible Emissions	6.72	27.13	61.23	5.39	5.24	8.01
Construction Site-fugitive PM-10	NA	NA	NA	15.84	3.17	NA
Construction Workers Commuter & Trucking	1.91	17.98	1.94	0.02	0.02	NA
Total emissions	8.63	45.11	63.16	21.25	8.43	8.01
De minimis threshold	NA	NA	NA	NA	NA	NA
AFRC Personnel Commute to Work	0.44	4.15	0.32	0.00	0.00	NA

APPENDIX C
Correspondence

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

August 13, 2008

Reply to the Attention of Environmental Office

Mr. Brad Jones, Regional Director
Region 1, Amarillo
Texas Commission on Environmental Quality
3918 Canyon Drive
Amarillo, TX 79109-4933

Dear Mr. Jones:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the Tharp U.S. Army Reserve Center (USARC) in Amarillo, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Amarillo, Texas.

The new facility will have the capability to accommodate Texas National Guard units from the following Texas Army National Guard Readiness Centers: Amarillo, Pampa, and Hale, Texas, if the state decides to relocate these National Guard units. The total amount of disturbed area is expected to be approximately 12 acres, although the preferred site encompasses a total of approximately 25 acres. No additional weapons systems or demands on training ranges are required for the proposed action.

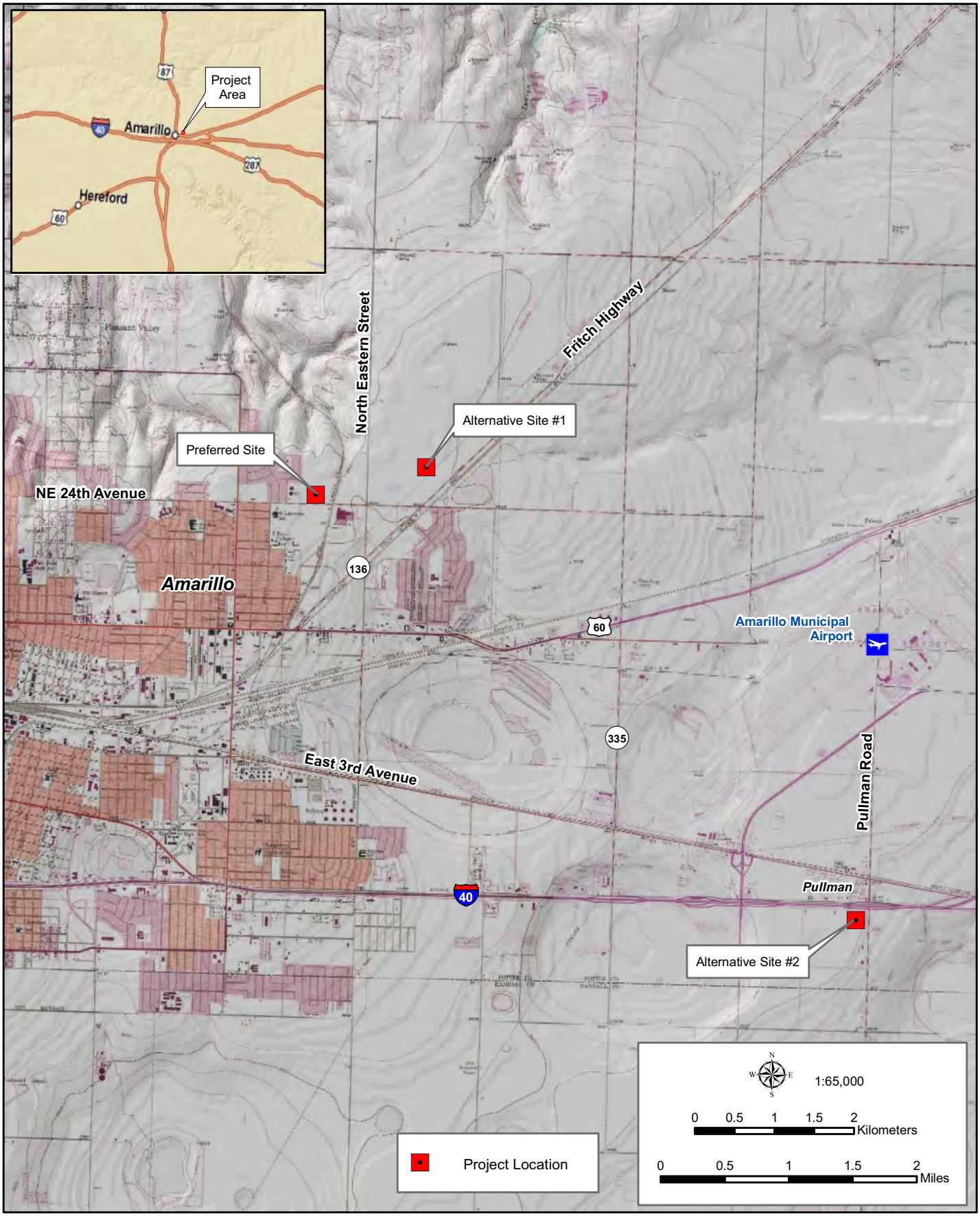
Three locations, the preferred site and two alternate sites at Amarillo, Texas, were identified as suitable for the construction of the AFRC (see Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations. An aerial photograph of the preferred site is presented in Enclosure B. As you can see, this site consists of a disturbed/fallow field containing various native and non-native grasses, herbs and forbs. The site is surrounded by a variety of developments including residential, a public wastewater treatment facility, private warehouses, and a railroad. Photographs taken during the field surveys are presented in Enclosure C.

We respectfully request that you provide us with any concerns or issues that you feel should be addressed in this EA. We will send you a copy of the EA when it is released to the public, which is currently anticipated to occur in early November 2008. If you have any questions, please do not hesitate to call me at (501)771-7992.

Sincerely,

James Wheeler II
Chief, Environmental Division
90th RRC

Enclosures (3)



Enclosure A: Vicinity Map

GSRC

June 2008

Enclosure B: Preferred Site

GSRC

June 2008

Enclosure C
Photographs of Preferred Site
Amarillo AFRC

Photograph 1. Preferred Site Looking NW from SE Corner

Photograph 2. Preferred Site Looking SW from NE Corner

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

August 13, 2008

Reply to the Attention of Environmental Office

Mr. Tom Cloud, Field Supervisor
U.S. Fish and Wildlife Service
Arlington, Texas Ecological Services Field Office
711 Stadium Drive, Suite 252
Arlington, Texas 76011

Dear Mr. Cloud:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the Tharp U.S. Army Reserve Center (USARC) in Amarillo, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Amarillo, Texas.

The new facility will have the capability to accommodate Texas National Guard units from the following Texas Army National Guard Readiness Centers: Amarillo, Pampa, and Hale, Texas, if the state decides to relocate these National Guard units. The total amount of disturbed area is expected to be approximately 12 acres, although the preferred site encompasses a total of approximately 25 acres. No additional weapons systems or demands on training ranges are required for the proposed action.

Three locations, the preferred site and two alternate sites at Amarillo, Texas, were identified as suitable for the construction of the AFRC (see Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations.

A search of the U.S. Fish and Wildlife Service's website indicated three Federally sensitive species could potentially occur within Potter County: whooping crane (*Grus americana*), bald eagle (*Haliaeetus leucocephalus*), and Arkansas River shiner (*Notropis girardi*). As you know, the bald eagle has been delisted and the whooping crane in this region is considered a non-essential, experimental population.

Pedestrian surveys have been completed at the preferred site and none of these species or suitable habitat capable of supporting these species were observed at the project site. The site consists of a disturbed/fallow field containing various native and non-native grasses, herbs and

forbs. The most common species observed included silvery bluestem (*Bothriochola saccharoides*), saltgrass (*Distichlis spicata*), three-awn grass (*Aristida* sp.), buffalo grass (*Bouteloua dactyloides*), Russian thistle (*Salsola kali*), curlycup gumweed (*Grindelia squarrosa*), Johnsongrass (*Sorghum halpense*), thistle (*Cirsium* spp.), purple nightshade (*Solanum triflorum*), and pricklypear (*Opuntia* sp.). The site is surrounded by a variety of developments including residential, a public wastewater treatment facility, private warehouses, and a railroad, as depicted in the aerial photograph (Enclosure B) and photographs taken during the field surveys (Enclosure C). In addition, there were no streams, washes, arroyos, or depressions on the site.

Wildlife observed during these surveys included black-tailed jackrabbit (*Lepus californicus*), northern mockingbird (*Mimus polyglottos*), great-tailed grackle (*Quiscalus major*), western meadowlark (*Sturnella neglecta*), mourning dove (*Zenaida macroura*), house sparrow (*Passer domesticus*), and domestic dogs, cats and chickens.

Based on these surveys and the existing conditions at and surrounding the preferred site, we have determined that the proposed action would have no effect on Federal or state-listed species. Because of the limited size of the proposed construction footprint and the low quality of habitat at the site, insignificant impacts to general wildlife populations would occur as a result of the proposed construction and operation of the AFRC.

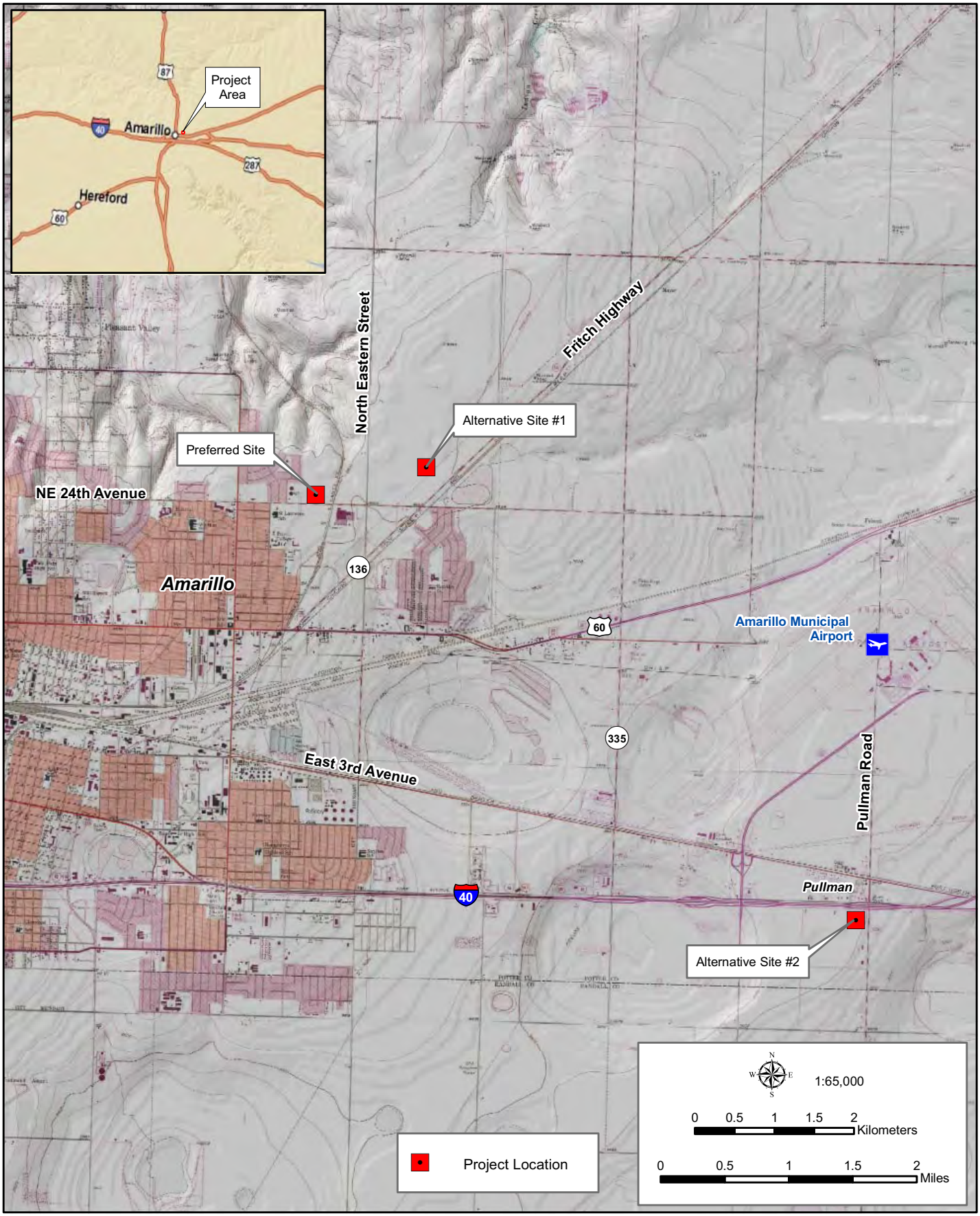
We respectfully request that you provide a written concurrence with our determination. Your prompt attention and cooperation would be greatly appreciated. If you have questions or concerns about this project, please do not hesitate to call me at (501) 771-7992.

Sincerely,

James Wheeler II

James Wheeler II
Chief, Environmental Division
90th RRC

Enclosures (3)



Enclosure A: Vicinity Map

GSRC

June 2008

Enclosure B: Preferred Site

GSRC

June 2008

Enclosure C
Photographs of Preferred Site
Amarillo AFRC

Photograph 1. Preferred Site Looking NW from SE Corner

Photograph 2. Preferred Site Looking SW from NE Corner

From: Sean_Edwards@fws.gov
Sent: Tuesday, October 21, 2008 11:34 AM
To: Chris Ingram
Cc: Wheeler, Jim USAR 90TH RRC Engineers; Olliff, Larry B SAM@SAS
Subject: Re: Amarillo AFRC

Mr. Ingram,

This responds to your e-mailed letter following our phone conversation, requesting concurrence with a determination of effect to federally listed species resulting from the proposed relocation of Texas National Guard units to a new Armed Forces Reserve Center to be at one of three Alternative Sites, each of which is located east of the City of Amarillo, Potter County, Texas. According to your letter, a determination has been made that the proposed project would result in no impacts to federally listed species. A “no effect” determination does not require section 7 consultation with the U.S. Fish and Wildlife Service and the Service cannot offer concurrence with determinations of "no effect."

Under section 7(a)(2) of the Endangered Species Act, federal agencies are responsible for determining the effects of their actions on listed species or critical habitat (50 CFR § 402.14 [a]). After evaluating the potential effects of a proposed action, one of the following determinations should be made by the federal agency:

No effect - the proposed action will not affect federally listed species or critical habitat (i.e., suitable habitat for the species occurring in the project county is not present in or adjacent to the action area). No coordination or contact with the Service is necessary. However, if the project changes or additional information on the distribution of listed or proposed species becomes available, the project should be reanalyzed for effects not previously considered.

Is not likely to adversely affect - the project may affect listed species and/or critical habitat; however, the effects are expected to be discountable, insignificant, or completely beneficial. Certain avoidance and minimization measures may need to be implemented in order to reach this level of effects. You should seek written concurrence from the Service that adverse effects have been eliminated. Be sure to include all of the information and documentation you used to reach your decision with your request for concurrence. The Service must have this documentation before issuing a concurrence.

Is likely to adversely affect - adverse effects to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial. If the overall effect of the proposed action is beneficial to the listed species but also is likely to cause some adverse effects to individuals of that species, then the proposed action “is likely to adversely affect” the listed species. An "is likely to adversely affect" determination requires formal Section 7 consultation with this office.

Regardless of your determination, the Service recommends that you maintain a complete record of the evaluation, including steps leading to the determination of affect, the qualified personnel conducting the evaluation, habitat conditions, site photographs, and any other related articles. The Service’s Consultation Handbook is available online to assist you with further information on definitions, process, and fulfilling Endangered Species Act requirements for your projects at http://endangered.fws.gov/consultations/s7hndbk/s7hndbk.htm.

Upon review of your letter, map, and photos, and our information, impacts to the endangered whooping crane (*Grus americana*) resulting from the proposed project would be unlikely due to an apparent lack of suitable habitats and the presence of existing human disturbance in the project vicinity. Likewise, the threatened Arkansas River shiner (*Notropis girardi*) occurs only within the Canadian River in Potter County and would not be expected to be adversely impacted by the proposed actions.

Please contact me if I may be of 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

Chris Ingram <cingram@gsrcorp.com>

10/20/2008 02:37 PM

To "sean_edwards@fws.gov" <sean_edwards@fws.gov>
cc "Wheeler, Jim USAR 90TH RRC Engineers" <jim.wheeler@usar.army.mil>, "Olliff, Larry B SAM@SAS" <Larry.B.Olliff@usace.army.mil>
Subject Amarillo AFRC

Sean—as we discussed, attached is the letter that Mr. Wheeler recently mailed to your office, but apparently has not been received. I believe that the letter will adequately explain the planned action and the existing conditions, to support the determination of no effect. However, if you need additional information please do not hesitate to call me. We appreciate your prompt attention to bring this issue, relative to T&E species, to closure. Thanks for your help and cooperation!

Chris Ingram
Gulf South Research Corporation
8081 GSRI Avenue
Baton Rouge, LA 70820
(225) 757-8088
www.gsrcorp.com

[attachment "USFWS_Amarillo_concurrence_ltr_08-01-08.pdf" deleted by Sean Edwards/R2/FWS/DOI]

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

August 13, 2008

Reply to the Attention of Environmental Office

Ms. Kathy Boydson
Wildlife Diversity Program
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744

Dear Ms. Boydson:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the Tharp U.S. Army Reserve Center (USARC) in Amarillo, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Amarillo, Texas.

The new facility will have the capability to accommodate Texas National Guard units from the following Texas Army National Guard Readiness Centers: Amarillo, Pampa, and Hale, Texas, if the state decides to relocate these National Guard units. The total amount of disturbed area is expected to be approximately 12 acres, although the preferred site encompasses a total of approximately 25 acres. No additional weapons systems or demands on training ranges are required for the proposed action.

Three locations, the preferred site and two alternate sites at Amarillo, Texas, were identified as suitable for the construction of the AFRC (see Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations.

A search of the U.S. Fish and Wildlife Service's website indicated three Federally sensitive species could potentially occur within Potter County: whooping crane (*Grus americana*), bald eagle (*Haliaeetus leucocephalus*), and Arkansas River shiner (*Notropis girardi*). As you know, the bald eagle has been delisted and the whooping crane in this region is considered a non-essential, experimental population. In addition to these species, the Texas Parks and Wildlife Department indicates that the following sensitive species has known or expected occurrences within Potter County: ferruginous hawk (*Buteo regalis*), lesser prairie chicken (*Tympanuchus pallidicinctus*), mountain plover (*Charadrius montanus*), western burrowing owl (*Athene cunicularia hypugaea*), interior least tern (*Sterna antillarum athalassos*),

black-footed ferret (*Mustela nigripes*), black-tailed prairie dog (*Cnynomys ludovicianus*), cave myotis bat (*Myotis velifer*), swift fox (*Vulpes velox velox*), Palo Dura mouse (*Peromyscus truei comanche*), Texas kangaroo rat (*Dipodomys elator*), sand dune lizard (*Sceloporus arenicolus*), and Texas horned lizard (*Phrynosoma cornutum*).

Pedestrian surveys have been completed at the preferred site and none of these species or suitable habitat capable of supporting these species was observed at the project site. The site consists of a disturbed/fallow field containing various native and non-native grasses, herbs and forbs. The most common species observed included silvery bluestem (*Bothriochola saccharoides*), saltgrass (*Distichlis spicata*), three-awn grass (*Aristida* sp.), buffalo grass (*Bouteloua dactyloides*), Russian thistle (*Salsola kali*), curlycup gumweed (*Grindelia squarrosa*), Johnsongrass (*Sorghum halpense*), thistle (*Cirsium* spp.), purple nightshade (*Solanum triflorum*), and pricklypear (*Opuntia* sp.). The site is surrounded by a variety of developments including residential, a public wastewater treatment facility, private warehouses, and a railroad, as depicted in the aerial photograph (Enclosure B) and photographs taken during the field surveys (Enclosure C). In addition, there were no streams, washes, arroyos, or depressions on the site.

Wildlife observed during these surveys included black-tailed jackrabbit (*Lepus californicus*), northern mockingbird (*Mimus polyglottos*), great-tailed grackle (*Quiscalus major*), western meadowlark (*Sturnella neglecta*), mourning dove (*Zenaida macroura*), house sparrow (*Passer domesticus*), and domestic dogs, cats and chickens. No burrows were observed, which would indicate the presence of western burrowing owl, black-footed ferret, or black-tailed prairie dog.

Based on these surveys and the existing conditions at and surrounding the preferred site, we have determined that the proposed action would have no effect on Federal or state-listed species. Because of the limited size of the proposed construction footprint and the low quality of habitat at the site, insignificant impacts to general wildlife populations would occur as a result of the proposed construction and operation of the AFRC.

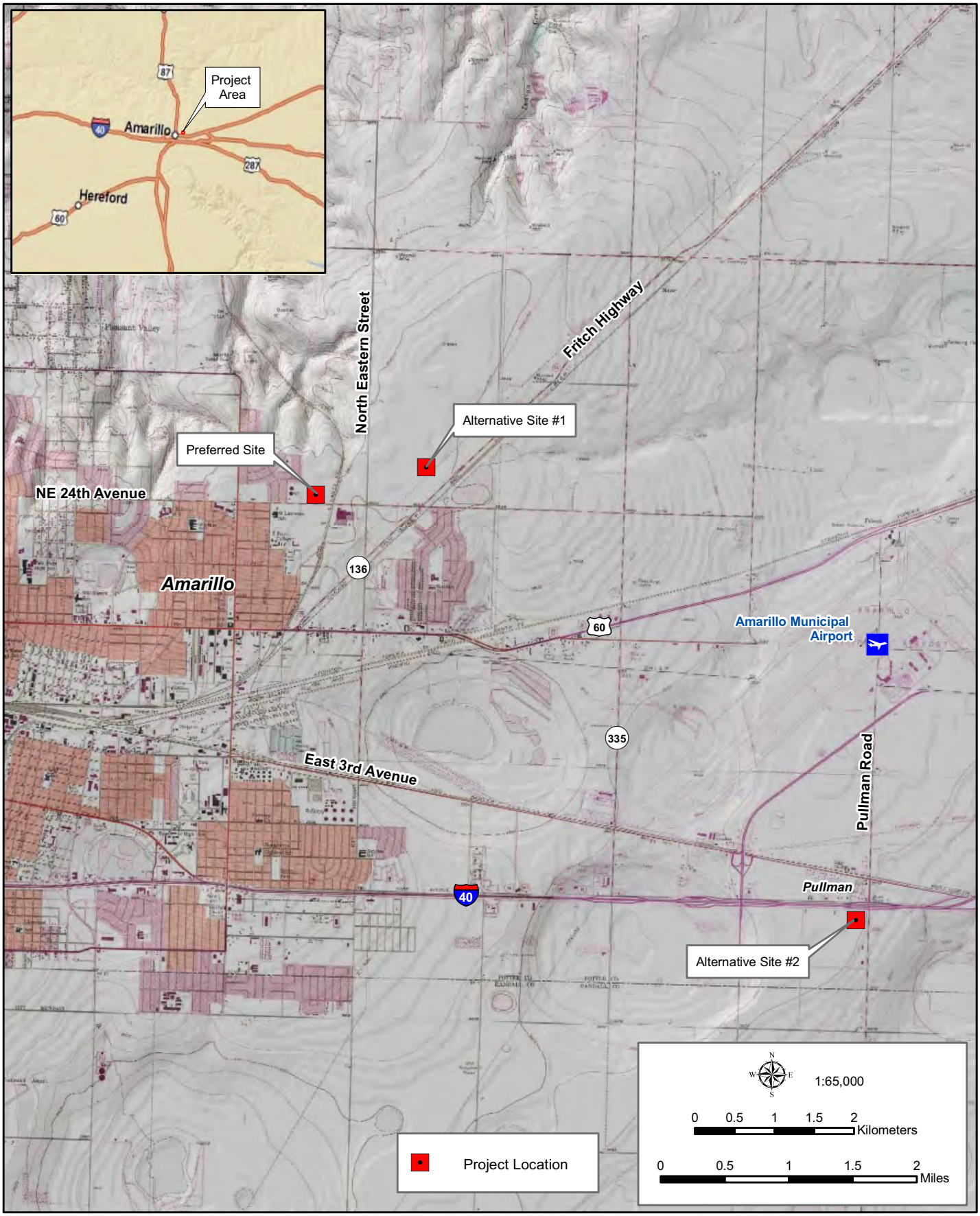
We respectfully request that you provide a written concurrence with our determination. Your prompt attention and cooperation would be greatly appreciated. If you have questions or concerns about this project, please do not hesitate to call me at (501) 771-7992.

Sincerely,

James Wheeler II

James Wheeler II
Chief, Environmental Division
90th RRC

Enclosures (3)



Enclosure A: Vicinity Map

GSRC

June 2008

Enclosure B: Preferred Site

GSRC

June 2008

Enclosure C
Photographs of Preferred Site
Amarillo AFRC

Photograph 1. Preferred Site Looking NW from SE Corner

Photograph 2. Preferred Site Looking SW from NE Corner

August 22, 2008

Richard Wauer, District Conservationist
NRCS, Amarillo Service Center
6565 W. Amarillo Blvd., Suite B
Amarillo, TX 79106-1725

Re: Farmland Conversion Impact Assessment for the new Armed Forces Reserve Center in Amarillo, Texas

Dear Mr. Wauer:

On behalf of the U. S. Army Corps of Engineers, Mobile District, who is acting for the Government to prepare the environmental assessment of a Base Closure and Realignment (BRAC) action requiring relocation of Army and state reserve forces to a new Armed Forces Reserve Center in Amarillo, Texas; we are forwarding to you for your evaluation a Farmland Conversion Impact Rating on form AD-1006. We have determined that the soils on the preferred site, as shown in the attached figures, are rated as prime farmland, subject to the Farmland Protection Policy Act of 1981.

Please review and assess the attached information, and advise if additional information or clarification is required. Please return all correspondence to my attention at the address on this letterhead. I can also be reached at the following email address: soivanki@gsrcorp.com. Thank you for your assistance.

Sincerely,

Stephen Oivanki
GSRC

attachments

Gulf South Research Corporation 8081 GSRI Avenue Baton Rouge, LA 70820
p-225.757.8088 f-225.761.8077 www.gsrcorp.com

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 8/22/08
Name Of Project Amarillo AFRC, Texas	Federal Agency Involved Department of the Army
Proposed Land Use New Armed Forces Reserve Center	County And State Amarillo, Potter Co., Texas
PART II *(To be completed by NRCS)*	Date Request Received By NRCS

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).*	Yes ☐	No ☐	Acres Irrigated	Average Farm Size
Major Crop*(s)*	Farmable Land In Govt. Jurisdiction Acres: %		Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System		Date Land Evaluation Returned By NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	12.0			
B. Total Acres To Be Converted Indirectly	13.0			
C. Total Acres In Site	25.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

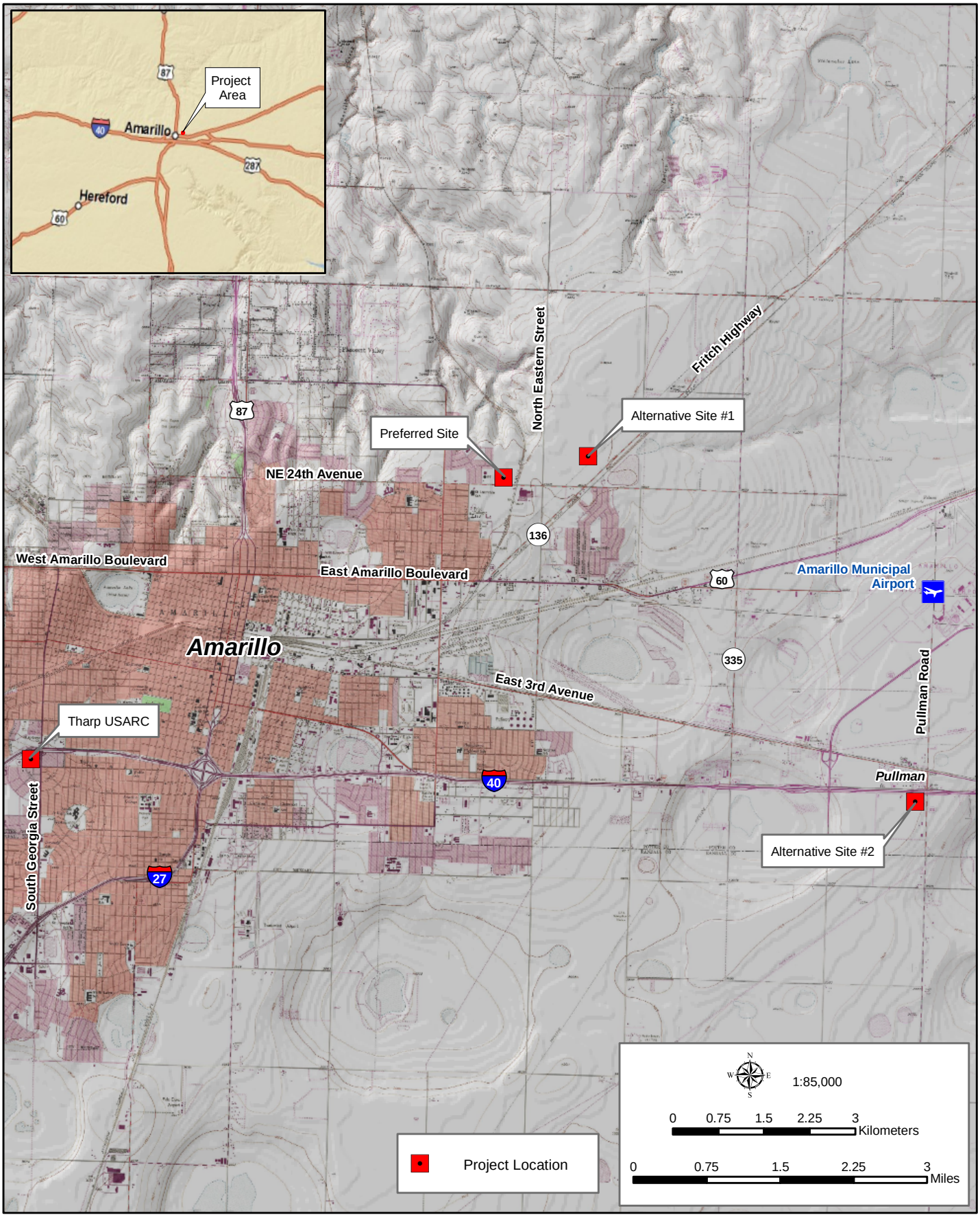
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

(See Instructions on reverse side)

Form AD-1006 (10-83)

This form was electronically produced by National Production Services Staff



Enclosure A. Vicinity Map

GSRC

June 2008

Enclosure B. Project Site Map - Preferred Site

GSRC

June 2008

Enclosure C. Project Site Soils Map

GSRC

June 2008

United States Department of Agriculture
NRCS
Natural Resources Conservation Service

101 S. Main Street
Temple, TX 76501-6624
Phone: 254-742-9861
FAX: 254-742-9859

October 22, 2008

Gulf South Research Corporation
8081 GSRI Avenue
Baton Rouge, Louisiana 70820
Attention: Stephen Oivanki

Subject: LNU-Farmland Protection
New Armed Forces Reserve Center, Amarillo
Potter County, Texas

We have reviewed the information provided concerning the proposed Armed Forces Reserve Center in Amarillo, Potter County, Texas, as outlined in your letter of August 22, 2008. This review is part of the National Environmental Policy Act (NEPA) evaluation for the Department of the Army. We have evaluated the proposed Project as required by the Farmland Protection Policy Act (FPPA).

This project would be exempt from the FPPA because the acquisition or use of farmland by a Federal agency for national defense purposes is exempted by section 1547(b) of the FPPA, 7 U.S.C. 4208(b). We have completed the AD-1006 (Farmland Conversion Impact Rating form) you provided us that shows the site is not classified as Important Farmland. It is attached.

Thank you for the resource materials you submitted to evaluate this project. If you have any questions please call Laurie Kiniry at (254)-742-9861, Fax (254)-742-9859.

Sincerely,

Laurie Kiniry

Laurie N. Kiniry, Soil Scientist

Enclosure

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 8/22/08
Name Of Project Amarillo AFRC, Texas	Federal Agency Involved Department of the Army
Proposed Land Use New Armed Forces Reserve Center	County And State Amarillo, Potter Co., Texas

PART II *(To be completed by NRCS)*		Date Request Received By NRCS	
Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).*	Yes ☐ No ☒	Acres Irrigated	Average Farm Size
Major Crop*(s)*	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	12.0			
B. Total Acres To Be Converted Indirectly	13.0			
C. Total Acres In Site	25.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

(See Instructions on reverse side)

This form was electronically produced by National Production Services Staff

Form AD-1006 (10-83)

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

October 19, 2008

Environmental Office

Mr. Nathan Tselee
Apache Tribe of Oklahoma
Business Committee
P.O. Box 1220
Anadarko, OK 73005

Dear Chairman Tselee:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the Tharp U.S. Army Reserve Center (USARC) in Amarillo, Texas and realign the units to a new Armed Forces Reserve Center (AFRC) in Amarillo, Texas.

The new facility will have the capability to accommodate Texas National Guard units from the following Texas Army National Guard Readiness Centers: Amarillo, Pampa, and Hale, TX, if the state decides to relocate these National Guard units. The total amount of disturbed area is expected to be approximately 12 acres, although the preferred site encompasses a total of approximately 25 acres. No additional weapons systems or demands on training ranges are required for the proposed action.

Three locations, the preferred site and two alternate sites at Amarillo, Texas, were identified as suitable for the construction of the AFRC (see Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations.

After a thorough search of the archaeological, historic building, and burial indices at the Texas State Historic Preservation Office, we have determined that there are no recorded archaeological sites, no recorded historic structures, and no recorded human burials on the property as described above. If your Tribe, or members of your Tribe, have knowledge of traditional cultural properties, sacred sites, or burials on or near the sites of our project, we request that you notify our representative listed below.

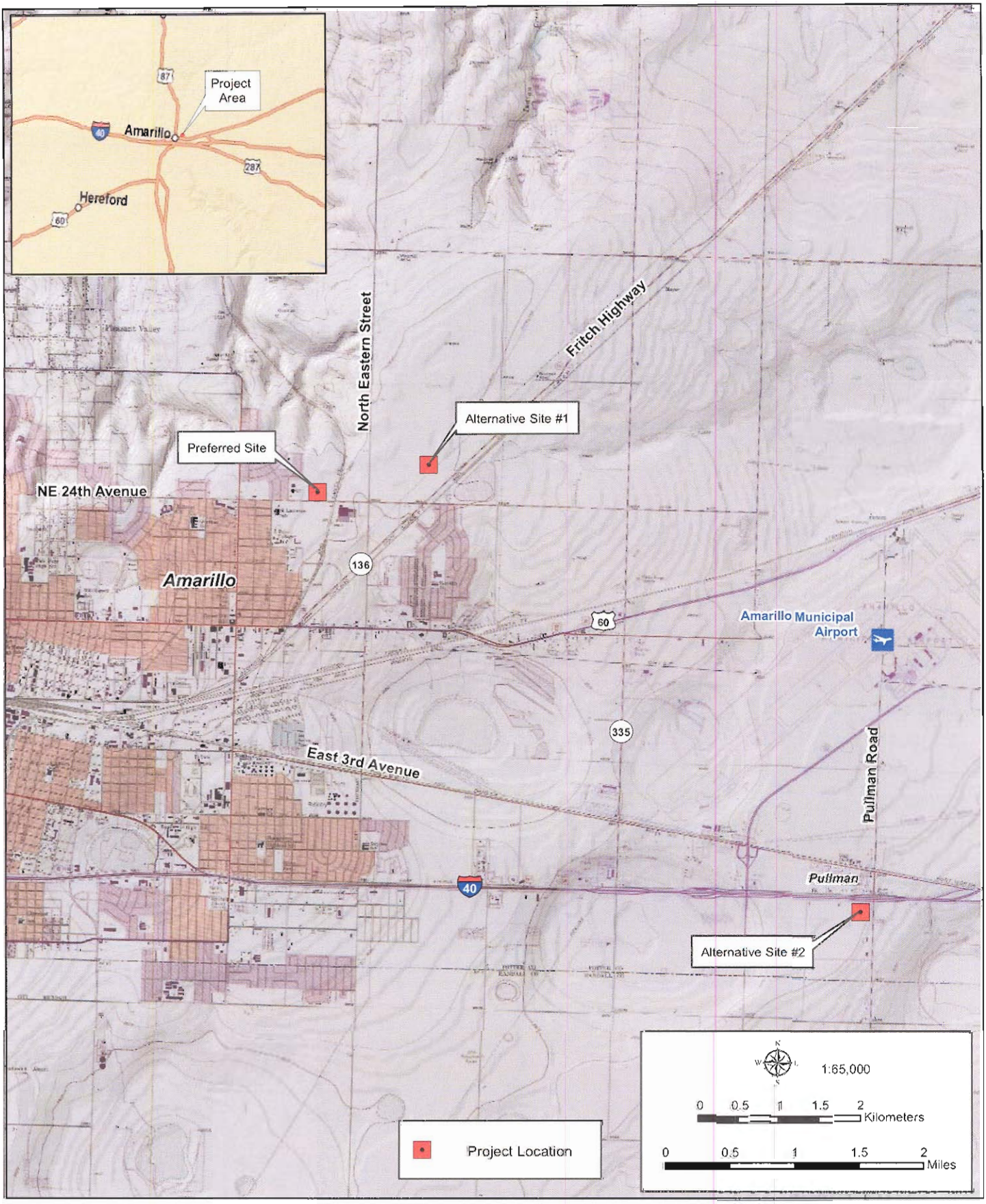
This notification is an invitation for your Tribe to participate in the cultural resources consultation process as required by the National Historic Preservation Act of 1966 (NHPA), as

amended, and Presidential Executive Order 13175 Consultation and Coordination with Indian Tribal Governments. The Army wishes to ensure that issues of concern to your Tribe are addressed, and welcomes any comments you may have about the proposed AFRC construction. If you have questions or concerns about this project, please contact Mr. James Wheeler II, Environmental Manager, 90th Regional Readiness Command at (501) 771-7992, within thirty days of receipt of this letter.

Sincerely,

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

Enclosure



Attachment A: Vicinity Map

GSRC

June 2008

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

October 19, 2008

Environmental Office

The Honorable Wallace Coffey, Chairman
Comanche Nation
ATTN: Office of Historic Preservation (Arterberry)
P.O. Box 908
Lawton, OK 73502

Dear Chairman Coffey:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the Tharp U.S. Army Reserve Center (USARC) in Amarillo, Texas and realign the units to a new Armed Forces Reserve Center (AFRC) in Amarillo, Texas.

The new facility will have the capability to accommodate Texas National Guard units from the following Texas Army National Guard Readiness Centers: Amarillo, Pampa, and Hale, TX, if the state decides to relocate these National Guard units. The total amount of disturbed area is expected to be approximately 12 acres, although the preferred site encompasses a total of approximately 25 acres. No additional weapons systems or demands on training ranges are required for the proposed action.

Three locations, the preferred site and two alternate sites at Amarillo, Texas, were identified as suitable for the construction of the AFRC (see Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations.

After a thorough search of the archaeological, historic building, and burial indices at the Texas State Historic Preservation Office, we have determined that there are no recorded archaeological sites, no recorded historic structures, and no recorded human burials on the property as described above. If your Tribe, or members of your Tribe, have knowledge of traditional cultural properties, sacred sites, or burials on or near the sites of our project, we request that you notify our representative listed below.

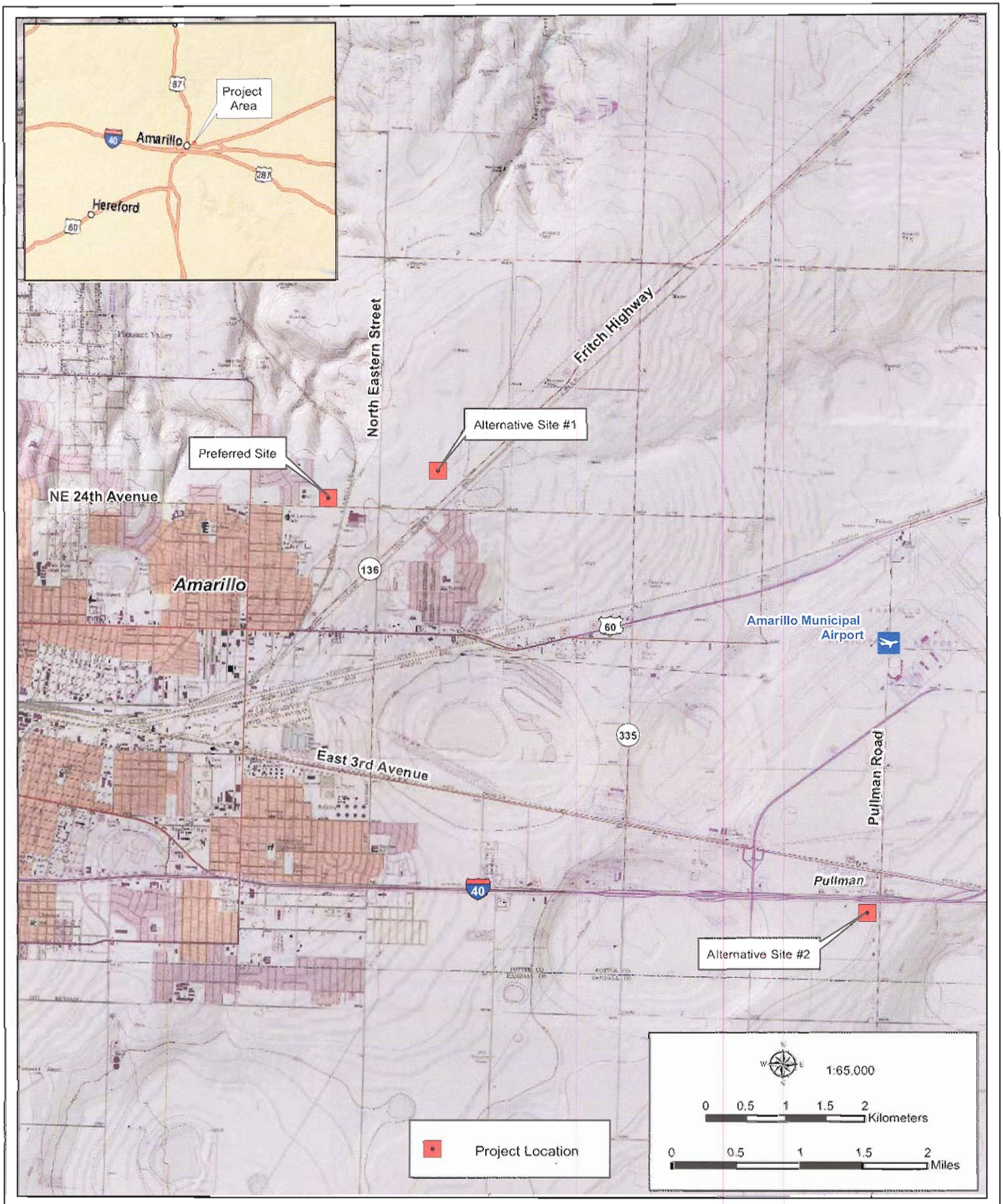
This notification is an invitation for your Tribe to participate in the cultural resources consultation process as required by the National Historic Preservation Act of 1966 (NHPA), as

amended, and Presidential Executive Order 13175 Consultation and Coordination with Indian Tribal Governments. The Army wishes to ensure that issues of concern to your Tribe are addressed, and welcomes any comments you may have about the proposed AFRC construction. If you have questions or concerns about this project, please contact Mr. James Wheeler II, Environmental Manager, 90th Regional Readiness Command at (501) 771-7992, within thirty days of receipt of this letter.

Sincerely,

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

Enclosure



Attachment A: Vicinity Map

GSRC

June 2008

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

October 19, 2008

Environmental Office

Mr. Billy E. Horse
Kiowa Tribe of Oklahoma
Business Committee
P.O. Box 369
Carnegie, OK 73015

Dear Chairperson Horse:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the Tharp U.S. Army Reserve Center (USARC) in Amarillo, Texas and realign the units to a new Armed Forces Reserve Center (AFRC) in Amarillo, Texas.

The new facility will have the capability to accommodate Texas National Guard units from the following Texas Army National Guard Readiness Centers: Amarillo, Pampa, and Hale, TX, if the state decides to relocate these National Guard units. The total amount of disturbed area is expected to be approximately 12 acres, although the preferred site encompasses a total of approximately 25 acres. No additional weapons systems or demands on training ranges are required for the proposed action.

Three locations, the preferred site and two alternate sites at Amarillo, Texas, were identified as suitable for the construction of the AFRC (see Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations.

After a thorough search of the archaeological, historic building, and burial indices at the Texas State Historic Preservation Office, we have determined that there are no recorded archaeological sites, no recorded historic structures, and no recorded human burials on the property as described above. If your Tribe, or members of your Tribe, have knowledge of traditional cultural properties, sacred sites, or burials on or near the sites of our project, we request that you notify our representative listed below.

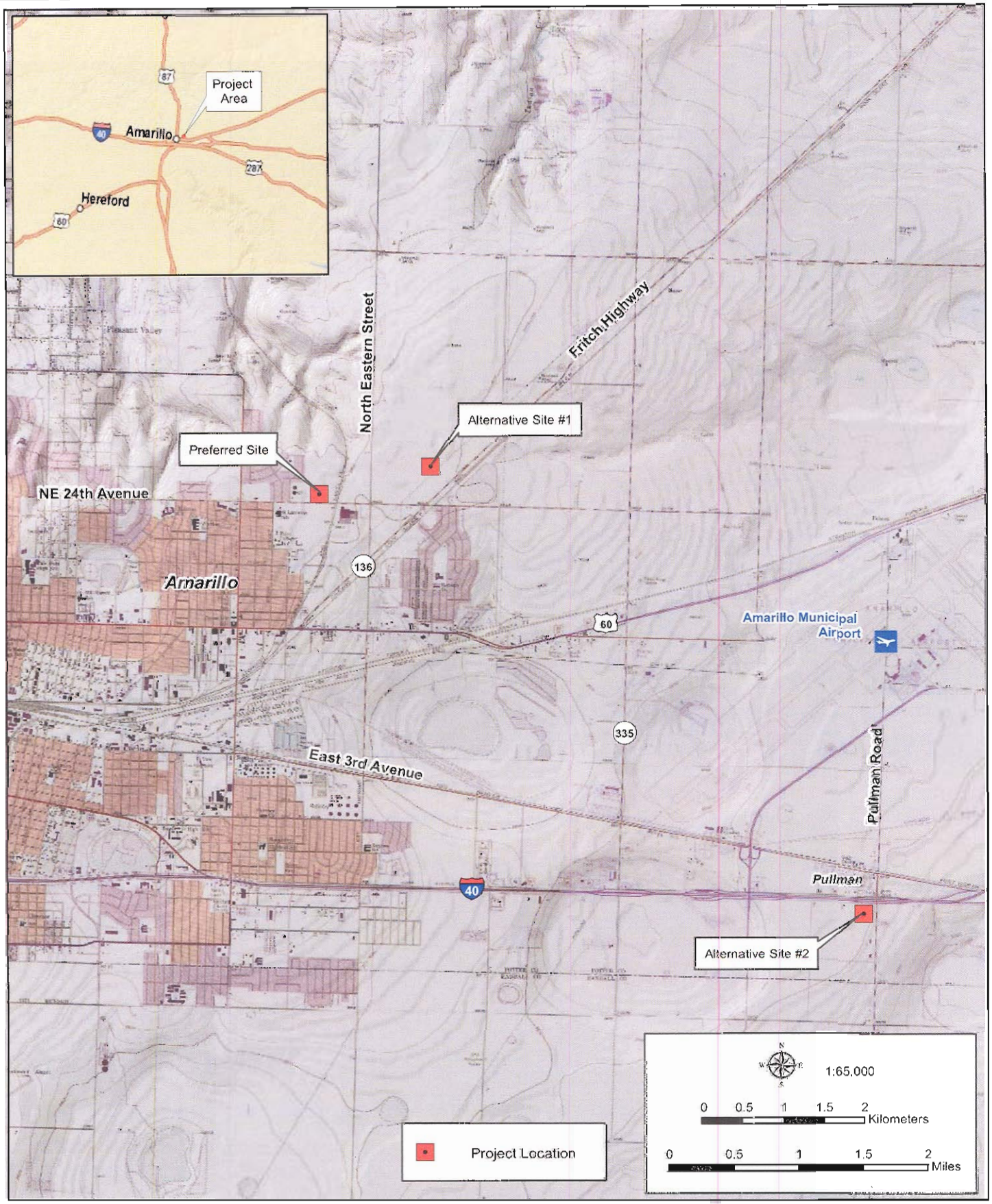
This notification is an invitation for your Tribe to participate in the cultural resources consultation process as required by the National Historic Preservation Act of 1966 (NHPA), as

amended, and Presidential Executive Order 13175 Consultation and Coordination with Indian Tribal Governments. The Army wishes to ensure that issues of concern to your Tribe are addressed, and welcomes any comments you may have about the proposed AFRC construction. If you have questions or concerns about this project, please contact Mr. James Wheeler II, Environmental Manager, 90th Regional Readiness Command at (501) 771-7992, within thirty days of receipt of this letter.

Sincerely,

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

Enclosure



Attachment A: Vicinity Map

GSRC

June 2008

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

October 9, 2008

Environmental Office

Mr. F. Lawrence Oaks
State Historic Preservation Officer
ATTN: Mr. Bill Martin
Texas Historical Commission
1511 Colorado Street
Austin, Texas 78701

Dear Mr. Oaks:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the Amarillo U.S. Army Reserve Center (USARC) in Amarillo, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Amarillo, Texas.

The new facility will have the capability to accommodate Texas National Guard units from the following Texas Army National Guard Readiness Centers: Amarillo, Pampa, and Hale, Texas, if the state decides to relocate these National Guard units. The total amount of disturbed area is expected to be approximately 12 acres, although the preferred site encompasses a total of approximately 25 acres. No additional weapons systems or demands on training ranges are required for the proposed action.

Three locations, the preferred site and two alternate sites at Amarillo, Texas, were identified as suitable for the construction of the AFRC (see Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations. An aerial photograph of the preferred site is presented in Enclosure B. As you can see, this site consists of a disturbed/fallow field containing various native and non-native grasses, herbs and forbs. The site is surrounded by a variety of developments including residential, a public wastewater treatment facility, private warehouses, and a railroad.

After a thorough search of the Texas Archaeological Sites Atlas to identify any known archaeological sites, historic structures, historic districts, or historic markers within 1-mile of the preferred project area, we have determined that there are no recorded archaeological sites, no recorded historic structures, and no recorded human burials on the preferred site described above.

One isolated artifact (BRAC-AM-IF#1) was identified during pedestrian survey or subsurface testing of the preferred site in Amarillo, Texas. This artifact consists of a retouched flake of Alibates chert, which might have functioned as a scraping tool. No other artifacts were found within the preferred site location. In addition, a pedestrian reconnaissance was performed of the view shed of the preferred tract. No structures or buildings that meet the 50 year age minimum for historic structures. As a result, no impacts to cultural resources are anticipated from the implementation of the preferred action alternative.

The construction and operation of the proposed AFRC at the alternative sites would be expected to result in similar impacts as described above for the preferred site. However, cultural resources field surveys were not conducted at this site, so accurate statements regarding the presence/absence of potentially significant historic properties cannot be made at the present time. If any other site is ultimately selected, cultural resources surveys and supplemental NEPA documentation would be required to fully assess the potential impacts to these resources.

If activities were to impact cultural resources not previously identified, we will immediately inform you of the discovery and to invite you to assist in the development of procedures for minimizing adverse impacts to the newly discovered cultural resources.

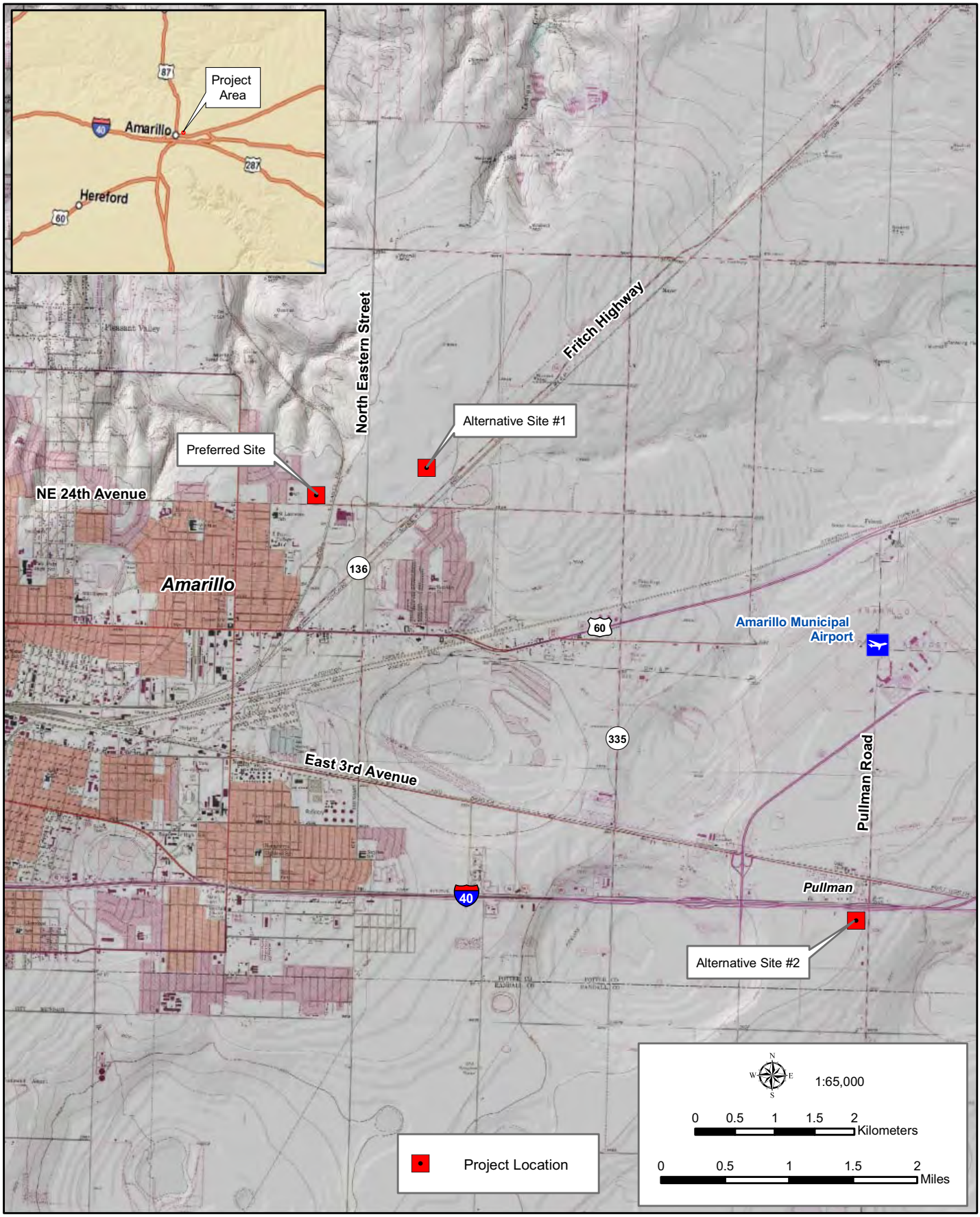
We request your concurrence on our determination that there are "no historic properties affected" by building the proposed AFRC, Amarillo. If you have questions or concerns about this project, please contact me at (501) 771-7992, at your earliest convenience.

Sincerely,

James Wheeler II

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

Enclosures (2)



Enclosure A: Vicinity Map

GSRC

June 2008

Enclosure B: Preferred Site

GSRC

June 2008

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

ARMY RESERVE
100 YEARS STRONG
READY FOR THE NEXT 100 YEARS!

October 9, 2008

RECEIVED
OCT 16 2008
Texas Historical Commission

Environmental Office

Mr. F. Lawrence Oaks
State Historic Preservation Officer
ATTN: Mr. Bill Martin
Texas Historical Commission
1511 Colorado Street
Austin, Texas 78701

Dear Mr. Oaks:

The Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended, implements recommendations made during the fall of 2005, by the Defense Base Closure and Realignment Commission (BRAC Commission). One of the proposed actions is to close the Amarillo U.S. Army Reserve Center (USARC) in Amarillo, Texas and relocate the units to a new Armed Forces Reserve Center (AFRC) in Amarillo, Texas.

The new facility will have the capability to accommodate Texas National Guard units from the following Texas Army National Guard Readiness Centers: Amarillo, Pampa, and Hale, Texas, if the state decides to relocate these National Guard units. The total amount of disturbed area is expected to be approximately 12 acres, although the preferred site encompasses a total of approximately 25 acres. No additional weapons systems or demands on training ranges are required for the proposed action.

Three locations, the preferred site and two alternate sites at Amarillo, Texas, were identified as suitable for the construction of the AFRC (see Enclosure A). The U.S. Army Corps of Engineers (USACE), Mobile District is in the process of preparing an Environmental Assessment (EA), which will assess the potential impacts of constructing and operating the new AFRC at one of these locations. An aerial photograph of the preferred site is presented in Enclosure B. As you can see, this site consists of a disturbed/fallow field containing various native and non-native grasses, herbs and forbs. The site is surrounded by a variety of developments including residential, a public wastewater treatment facility, private warehouses, and a railroad.

After a thorough search of the Texas Archaeological Sites Atlas to identify any known archaeological sites, historic structures, historic districts, or historic markers within 1-mile of the preferred project area, we have determined that there are no recorded archaeological sites, no recorded historic structures, and no recorded human burials on the preferred site described above.

One isolated artifact (BRAC-AM-IF#1) was identified during pedestrian survey or subsurface testing of the preferred site in Amarillo, Texas. This artifact consists of a retouched flake of Alibates chert, which might have functioned as a scraping tool. No other artifacts were found within the preferred site location. In addition, a pedestrian reconnaissance was performed of the view shed of the preferred tract. No structures or buildings that meet the 50 year age minimum for historic structures. As a result, no impacts to cultural resources are anticipated from the implementation of the preferred action alternative.

The construction and operation of the proposed AFRC at the alternative sites would be expected to result in similar impacts as described above for the preferred site. However, cultural resources field surveys were not conducted at this site, so accurate statements regarding the presence/absence of potentially significant historic properties cannot be made at the present time. If any other site is ultimately selected, cultural resources surveys and supplemental NEPA documentation would be required to fully assess the potential impacts to these resources.

If activities were to impact cultural resources not previously identified, we will immediately inform you of the discovery and to invite you to assist in the development of procedures for minimizing adverse impacts to the newly discovered cultural resources.

We request your concurrence on our determination that there are "no historic properties affected" by building the proposed AFRC, Amarillo. If you have questions or concerns about this project, please contact me at (501) 771-7992, at your earliest convenience.

NO HISTORIC
PROPERTIES AFFECTED
PROJECT MAY PROCEED
By _____
for F. Lawerence Oaks
State Historic Preservation Officer
Date 11/13/08
Track# _____

Sincerely,

James Wheeler II

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

Enclosures (2)

TEXAS PARKS & WILDLIFE

Life's better outside.™

Commissioners

Peter M. Holt
Chairman
San Antonio

T. Dan Friedkin
Vice-Chairman
Houston

Mark E. Bivins
Amarillo

J. Robert Brown
El Paso

Ralph H. Duggins
Fort Worth

Antonio Falcon, M.D.
Rio Grande City

Karen J. Hixon
San Antonio

Margaret Martin
Boerne

John D. Parker
Lufkin

Lee M. Bass
Chairman-Emeritus
Fort Worth

Carter P. Smith
Executive Director

November 4, 2008

Mr. James Wheeler
U.S. Army Readiness Command, Environmental Office
8000 Camp Robinson Road
North Little Rock, AR 72118-2205

RE: Proposed Armed Forces Reserve Center (AFRC) in Amarillo, Potter County

Dear Mr. Wheeler:

Texas Parks and Wildlife Department (TPWD) has received the request for concurrence that the above-referenced proposed project would have no effect on federal or state-listed species and insignificant impacts to general wildlife populations. TPWD staff has reviewed the information provided and offers the following comments and information for consideration during the preparation of the Environmental Assessment.

Project Description

The proposed project entails the relocation of the units at the Tharp U.S. Army Reserve Center to a new AFRC. Three locations including the preferred site and two alternate sites were identified as suitable for the construction of the AFRC. The total amount of disturbed area is expected to be approximately 12 acres, although the preferred site encompasses a total of approximately 25 acres. No additional weapons systems or demands on training ranges are required for the proposed action. The site consists of disturbed/fallow field containing various native and non-native grasses and forbs. Because the project would be constructed in a previously disturbed area, adverse impacts to fish and wildlife from the proposed project should be minimal.

Recommendation: TPWD recommends that areas disturbed during construction and the remaining, unused 13 acres of the site be revegetated with native grasses and forbs to create habitat beneficial to wildlife and promote biodiversity. The use of Bermuda grass (*Cynodon dactylon*) and other introduced species should be avoided.

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.state.tx.us

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.

Rare and Protected Species

Based on a review of records in the Texas Natural Diversity Database (TXNDD), an occurrence of the species of concern Swift fox (*Vulpes velox*) has been documented possibly on or within 1.5 miles of the preferred site and both alternative sites. A colonial waterbird rookery has been documented possibly within 1.5 miles of the preferred site and alternative site #1. Printouts for these records are attached for your reference.

The information provided states that no burrows which would indicate the presence of the species of concern Western Burrowing Owl (*Athene cunicularia hypugaea*) or the Black-tailed prairie dog (*Cynomys ludovicianus*) were observed during pedestrian surveys of the site. A review of records in the TXNDD also revealed no records of these species on the preferred site or the alternative sites. However, please note that absence of TXNDD information in an area does not imply that a species is absent from that area. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presence, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and **cannot be used as presence/absence data**. They represent species that could potentially be in your project area. The TXNDD is updated continuously. As your project progresses and for future projects, please request the most current and accurate information at txndd@tpwd.state.tx.us or contact Dorinda Scott at (512) 389-8723.

Please note that rare species or their habitat may not always be detectable during pedestrian studies. Determining the actual presence of a species in a given area depends on many variables including daily and seasonal activity cycles, environmental activity cues, preferred habitat, transiency and population density (both wildlife and human). The absence of a species can be demonstrated only with great difficulty and then only with repeated negative observations, taking into account all the variable factors contributing to the lack of detectable presence. If encountered during construction, measures should be taken to avoid impacting wildlife.

Recommendation: Please review the attached TPWD county list for Potter County as rare species could be present depending on habitat

availability. These lists are now available online at http://www.tpwd.state.tx.us/landwater/land/maps/gis/ris/endangered_species.phtml. If the project area is found to contain rare species, natural plant communities, or special features, TPWD recommends that precautions be taken to avoid impacts to them. The U.S. Fish and Wildlife Service (USFWS) should be contacted for additional species occurrence data, guidance, permitting, survey protocols, and mitigation for federally listed species. For the USFWS rare species lists please visit http://www.fws.gov/southwest/es/EndangeredSpecies/lists/.

Most native bird species are protected and must be dealt with in a manner consistent with the Migratory Bird Treaty Act (MBTA). The MBTA implicitly prohibits intentional and unintentional take of migratory birds, including their nests and eggs, except where permitted. Additional information regarding the MBTA may be obtained through the Southwest Regional Office (Region 2) Division of Migratory Birds, USFWS, at (505) 248-7882.

Recommendation: If migratory bird species are found nesting on or adjacent to the project area, they must be dealt with in a manner consistent with the MBTA. TPWD recommends excluding clearing activities during the general bird nesting season, March through August, to avoid adverse impacts to this group including ground nesting species.

I appreciate the opportunity to review and comment on this project. Please contact me at (512) 389-4579 if we may be of further assistance.

Sincerely,

Julie C. Wicker

Julie C. Wicker
Wildlife Habitat Assessment Program
Wildlife Division

JCW:gg.13399

Attachments

Element Occurrence Record

Scientific Name: *Vulpes velox* **Occurrence #:** 38 **Eo Id:** 5375

Common Name: Swift Fox **TX Protection Status:**

Global Rank: G3 **State Rank:** S2

Location Information:

Latitude: 351155N **Longitude:** 1014344W

Watershed Code:	Watershed Description:
11120301	Upper North Fork Red
11120103	Upper Prairie Dog Town Fork Red
11090105	Lake Meredith

County Code:	County Name:	Mapsheet Code:	Mapsheet Name:	State:
TXPOTT	Potter	35101-B7	Amarillo East	TX
TXRAND	Randall	35101-C7	Pleasant Valley	TX
		35101-B6	Pullman	TX
		35101-C6	Mayer	TX

Directions:

5.0 MILES EAST OF AMARILLO, POTTER COUNTY

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1966-08-30

Eo Type: **EO Rank:** **EO Rank Date:**

Observed Area (acres); **Estimated Representation Accuracy:**

Comments:

General Description:

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: ONE MALE SWIFT FOX

Managed Area:

Managed Area Name: **Managed Area Type:**

Element Occurrence Record

Reference:

Full Citation:

STANGL, FREDRICK B., JR. 1995. PERSONAL CORRESPONDENCE WITH PEGGY HORNER OF APRIL 5, 1995.

Specimen:

MIDWESTERN STATE UNIVERSITY MUSEUM, WICHITA FALLS, TX. 1966. R.L. WESTMORELAND, CATALOG # ? MSUM. 30 AUGUST 1966.

Associated Species:

Species Name	Type	Comments

Element Occurrence Record

Scientific Name: *Rookery* **Occurrence #:** 415 **Eo Id:** 3802

Common Name: **TX Protection Status:**

Global Rank: GNR **State Rank:** SNR

Location Information:

Latitude: 351240N **Longitude:** 1014543W

Watershed Code:	Watershed Description:
11120301	Upper North Fork Red

County Code:	County Name:	Mapsheet Code:	Mapsheet Name:	State:
TXPOTT	Potter	35101-B7	Amarillo East	TX

Directions:

JUST EAST OF AMARILLO AT LARGE RESERVOIR, BETWEEN HIGHWAYS 60/66 TO NORTH, AND 287 TO SOUTH

Survey Information:

First Observation: 1989 **Survey Date:** **Last Observation:** 1990

Eo Type: **EO Rank:** **EO Rank Date:**

Observed Area (acres): **Estimated Representation Accuracy:**

Comments:

General Description:

Comments: COLONY NUMBER 487-002

Protection Comments:

Management Comments:

Data:

EO Data: NESTING COLONY OF THE BLACK-CROWNED NIGHT-HERON

Managed Area:

Managed Area Name: **Managed Area Type:**

Reference:

Element Occurrence Record

Full Citation:

TEXAS COLONIAL WATERBIRD SOCIETY AND TEXAS PARKS & WILDLIFE DEPARTMENT. 1990. TEXAS COLONIAL WATERBIRD CENSUS SUMMARY. SPECIAL ADMINISTRATIVE REPORT.

TEXAS COLONIAL WATERBIRD SOCIETY AND TEXAS PARKS & WILDLIFE DEPARTMENT. 1986-1989. TEXAS COLONIAL WATERBIRD CENSUS SUMMARY. SPECIAL ADMINISTRATIVE REPORTS.

Specimen:

Associated Species:

Species Name	Type	Comments

Code Key for Printouts from
Texas Parks and Wildlife Department
Texas Natural Diversity Database (TXNDD)

This information is for your assistance only; due to continuing data updates, vulnerability of private land to trespass and of species to disturbance or collection, **please refer all requesters to our office to obtain the most current information available.** Also, please note, identification of a species in a given area does not necessarily mean the species currently exists at the point or area indicated.

LEGAL STATUS AND CONSERVATION RANKS

FEDERAL STATUS (as determined by the US Fish and Wildlife Service)

LE	Listed Endangered
LT	Listed Threatened
PE	Proposed to be listed Endangered
PT	Proposed to be listed Threatened
PDL	Proposed to be Delisted (Note: Listing status retained while proposed)
SAE, SAT	Listed Endangered on basis of Similarity of Appearance, Listed Threatened on basis of Similarity of Appearance
DL	Delisted Endangered/Threatened
C	Candidate. USFWS has substantial information on biological vulnerability and threats to support proposing to list as threatened or endangered. Data are being gathered on habitat needs and/or critical habitat designations.
C*	C, but lacking known occurrences
C**	C, but lacking known occurrences, except in captivity/cultivation
XE	Essential Experimental Population.
XN	Non-essential Experimental Population
Blank	Species is not federally listed

TX PROTECTION (as determined by the Texas Parks and Wildlife Department)

E	Listed Endangered
T	Listed Threatened
Blank	Species not state-listed

GLOBAL RANK (as determined by NatureServe)

G1	Critically imperiled globally, extremely rare, typically 5 or fewer viable occurrences
G2	Imperiled globally, very rare, typically 6 to 20 viable occurrences
G3	Very rare and local throughout range or found locally in restricted range, typically 21 to 100 viable occurrences
G4	Apparently secure globally
G5	Demonstrably secure globally
GH	Of historical occurrence through its range
GU	Possibly in peril range-wide, but status uncertain
G#G#	Ranked within a range as status uncertain
GX	Apparently extinct throughout range
Q	Rank qualifier denoting taxonomic assignment is questionable
#?	Rank qualifier denoting uncertain rank
C	In captivity or cultivation only
G#T#	"G" refers to species rank; "T" refers to variety or subspecies rank

STATE (SUBNATIONAL) RANK (as determined by the Texas Parks and Wildlife Department)

S1	Critically imperiled in state, extremely rare, vulnerable to extirpation, typically 5 or fewer viable occurrences
S2	Imperiled in state, very rare, vulnerable to extirpation, typically 6 to 20 viable occurrences
S3	Rare or uncommon in state, typically 21 to 100 viable occurrences
S4	Apparently secure in State
S5	Demonstrably secure in State
S#S#	Ranked within a range as status uncertain
SH	Of historical occurrence in state and may be rediscovered
SU	Unrankable – due to lack of information or substantially conflicting information
SX	Apparently extirpated from State
SNR	Unranked – State status not yet assessed
SNA	Not applicable – species id not a suitable target for conservation activities
?	Rank qualifier denoting uncertain rank in State

ELEMENT OCCURRENCE RECORD

Element Occurrence Record (EOR) Spatial and tabular record of an area of land and/or water in which a species, natural community, or other significant feature of natural diversity is, or was, present and associated information; may be a single contiguous area or may be comprised of discrete patches or subpopulations

Occurrence # Unique number assigned to each occurrence of each element when added to the NDD

LOCATION INFORMATION

Watershed Code Eight digit numerical code determined by US Geological Survey (USGS)

Watershed Name of watershed as determined by USGS

Quadrangle Name of USGS topographical map

Directions Directions to geographic location where occurrence was observed, as described by observer or in source

SURVEY INFORMATION

First/Last Observation Date a particular occurrence was first/last observed; refers only to species occurrence as noted in source and does not imply the first/last date the species was present

Survey Date If conducted, date of survey

EO Type State rank qualifiers:

- **M** Migrant – species occurring regularly on migration at staging areas, or concentration along particular corridors; status refers to the transient population in the State
- **B** Qualifier indicating basic rank refers to the breeding population in State
- **N** Qualifier indicating basic rank refers to the non-breeding population in State

EO Rank

A	Excellent	**AI**	Excellent, Introduced
B	Good	**BI**	Good, Introduced
C	Marginal	**CI**	Marginal, Introduced
D	Poor	**DI**	Poor, Introduced
E	Extant/Present	**EI**	Extant, Introduced
H	Historical/No Field Information	**HI**	Historical, Introduced
X	Destroyed/Extirpated	**XI**	Destroyed, Introduced
O	Obscure	**OI**	Obscure, Introduced

EO Rank Date Latest date EO rank was determined or revised

Observed Area Acres, unless indicated otherwise

COMMENTS

Description General physical description of area and habitat where occurrence is located, including associated species, soils, geology, and surrounding land use

Comments Comments concerning the quality or condition of the element occurrence at time of survey

Protection Comments Observer comments concerning legal protection of the occurrence

Management Comments Observer comments concerning management recommendations appropriate for occurrence conservation

DATA

EO Data Biological data; may include number of individuals, vigor, flowering/fruiting data, nest success, behaviors observed, or unusual characteristic, etc.

SITE

Site Name Title given to site by surveyor

MANAGED AREA INFORMATION

Managed Area Name Place name or (on EOR printout) name of area when the EO is located within or partially within an area identified for conservation, such as State or Federal lands, nature preserves, parks, etc.

Alias Additional names the property is known by

Acres Total acreage of property, including non-contiguous tracts

Manager Contact name, address, and telephone number for area or nearest area land steward

Please use one of the following citations to credit the source for the printout information:

Texas Natural Diversity Database. [year of printouts]. Wildlife Diversity Program of Texas Parks & Wildlife Department. [day month year of printouts].

Texas Natural Diversity Database. [year of printouts]. Element occurrence printouts for [scientific name] *records # [occurrence number(s)]. Wildlife Diversity Program of Texas Parks & Wildlife Department. [day month year of printouts]. *Use of record #'s is optional.

POTTER COUNTY

BIRDS

		Federal Status	State Status
American Peregrine Falcon	*Falco peregrinus anatum*	DL	E

year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL	T

migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Baird's Sparrow *Ammodramus bairdii*

shortgrass prairie with scattered low bushes and matted vegetation; mostly migratory in western half of State, though winters in Mexico and just across Rio Grande into Texas from Brewster through Hudspetth counties

Bald Eagle	*Haliaeetus leucocephalus*	DL	T

found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds

Ferruginous Hawk *Buteo regalis*

open country, primarily prairies, plains, and badlands; nests in tall trees along streams or on steep slopes, cliff ledges, river-cut banks, hillsides, power line towers; year-round resident in northwestern high plains, wintering elsewhere throughout western 2/3 of Texas

Interior Least Tern	*Sterna antillarum athalassos*	LE	E

subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony

Lesser Prairie-Chicken	*Tympanuchus pallidicinctus*	C	

arid grasslands, generally interspersed with shrubs such as sand sagebrush, sand plum, skunkbush sumac, and shinnery oak shrubs, but dominated by sand dropseed, sideoats grama, sand bluestem, and little bluestem grasses; nests in a scrape lined with grasses

Mountain Plover *Charadrius montanus*

breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous

Peregrine Falcon	*Falco peregrinus*	DL	E T

POTTER COUNTY

BIRDS

Federal Status State Status

both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, thus the species level shows this dual listing status; because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.

Prairie Falcon *Falco mexicanus*

open, mountainous areas, plains and prairie; nests on cliffs

Snowy Plover *Charadrius alexandrinus*

formerly an uncommon breeder in the Panhandle; potential migrant; winter along coast

Western Burrowing Owl *Athene cunicularia hypugaea*

open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

Western Snowy Plover *Charadrius alexandrinus nivosus*

uncommon breeder in the Panhandle; potential migrant; winter along coast

Whooping Crane *Grus americana* LE E

potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties

FISHES

Federal Status State Status

Arkansas River shiner *Notropis girardi* LT T

typically in turbid waters of broad shallow channels of main streams, over mostly silt and shifting sand bottom

Arkansas River speckled chub *Macrhybopsis tetranemus*

large low gradient streams, usually over fine gravel or sand; Middle Canadian and Beaver River basins

INSECTS

Federal Status State Status

Wiest's sphinx moth *Euproserpinus wiesti*

aeolian dunes and blowouts within more extensive sandy vegetated areas with Oenthera latifolia; caterpillars feed on leaves of Oenthera latifolia; adult nectar sources not known, adults fly from Apr - early Jun, lay eggs on the host plants, larvae feed through May, then burrow into loose sand to pupate and emerge the following spring

MAMMALS

Federal Status State Status

Big free-tailed bat *Nyctinomops macrotis*

POTTER COUNTY

MAMMALS

		Federal Status	State Status

habitat data sparse but records indicate that species prefers to roost in crevices and cracks in high canyon walls, but will use buildings, as well; reproduction data sparse, gives birth to single offspring late June-early July; females gather in nursery colonies; winter habits undetermined, but may hibernate in the Trans-Pecos; opportunistic insectivore

Black bear *Ursus americanus* T/SA;NL T

bottomland hardwoods and large tracts of inaccessible forested areas; due to field characteristics similar to Louisiana Black Bear (LT, T), treat all east Texas black bears as federal and state listed Threatened

Black-footed ferret *Mustela nigripes* LE E

extirpated; inhabited prairie dog towns in the general area

Black-tailed prairie dog *Cynomys ludovicianus*

dry, flat, short grasslands with low, relatively sparse vegetation, including areas overgrazed by cattle; live in large family groups

Cave myotis bat *Myotis velifer*

colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore

Gray wolf *Canis lupus* LE E

extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands

Pale Townsend's big-eared bat *Corynorhinus townsendii pallescens*

roosts in caves, abandoned mine tunnels, and occasionally old buildings; hibernates in groups during winter; in summer months, males and females separate into solitary roosts and maternity colonies, respectively; single offspring born May-June; opportunistic insectivore

Plains spotted skunk *Spilogale putorius interrupta*

catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie

Swift fox *Vulpes velox*

restricted to current and historic shortgrass prairie; western and northern portions of Panhandle

Western small-footed bat *Myotis ciliolabrum*

mountainous regions of the Trans-Pecos, usually in wooded areas, also found in grassland and desert scrub habitats; roosts beneath slabs of rock, behind loose tree bark, and in buildings; maternity colonies often small and located in abandoned houses, barns, and other similar structures; apparently occurs in Texas only during spring and summer months; insectivorous

POTTER COUNTY

REPTILES

		Federal Status	State Status
Texas horned lizard	*Phrynosoma cornutum*		T

open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September

PLANTS

		Federal Status	State Status
Mexican mud-plantain	*Heteranthera mexicana*		

aquatic; ditches and ponds; flowering June-August

Instructions for County Lists of Texas' Special Species

The Texas Parks and Wildlife (TPWD) county lists **include**:

Vertebrates, Invertebrates, and Vascular Plants identified as being of conservation concern by TPWD within Texas. These special species lists are comprised of species, subspecies, and varieties that are federally listed; proposed to be federally listed; have federal candidate status; are state listed; or carry a global conservation status indicating a species is critically imperiled, very rare, vulnerable to extirpation, or uncommon.

The TPWD county lists **do not include**:

Natural Plant Communities such as Little Bluestem-Indiangrass Series (native prairie remnant), Water Oak-Willow Oak Series (bottomland hardwood community), Saltgrass-Cordgrass Series (salt or brackish marsh), Sphagnum-Beakrush Series (seepage bog).

Other Significant Features such as bird rookeries, migratory songbird fallout areas, comprehensive migratory bird information, bat roosts, bat caves, invertebrate caves, and prairie dog towns.

These lists are not all inclusive for all rare species distributions. The lists were compiled, developed, and are updated based on field guides, staff expertise, scientific publications, and the TPWD Natural Diversity Database (NDD) (formerly the Biological and Conservation Data System) occurrence data. Historic ranges for some state extirpated species, full historic distributions for some extant species, accidentals and irregularly appearing species, and portions of migratory routes for particular species are not necessarily included. Species that appear on county lists do not all share the same probability of occurrence within a county. Some species are migrants or wintering residents only. Additionally, a few species may be historic or considered extirpated within a county.

TPWD includes the Federal listing status for your convenience and makes every attempt to keep the information current and correct. However, the US Fish and Wildlife Service (FWS) is the responsible authority for Federal listing status. The TPWD lists do not substitute for contact with the FWS and federally listed species county ranges may vary from the FWS county level species lists because of the inexact nature of range map development and use.

Status Key:

LE, LT -	Federally Listed Endangered/Threatened
PE, PT -	Federally Proposed Endangered/Threatened
E/SA, T/SA -	Federally Listed Endangered/Threatened by Similarity of Appearance
C -	Federal Candidate for Listing; formerly Category 1 Candidate
DL, PDL -	Federally Delisted/Proposed for Delisting
NL -	Not Federally Listed
E, T -	State Listed Endangered/Threatened
NT -	Not tracked or no longer tracked by the State
"blank" -	Rare, but with no regulatory listing status

This information is specifically for your assistance only; due to continuing data updates, **please do not redistribute the lists**, instead refer all requesters to the web site at: http://www.tpwd.state.tx.us/landwater/land/maps/gis/ris/endangered_species.phtml or to our office for the most current information available. For questions regarding county lists, please call (512) 389-4571.

Please use the following citation to credit the source for this county level information:

Texas Parks and Wildlife Department, Wildlife Division, Diversity and Habitat Assessment Programs. County Lists of Texas' Special Species. [county name(s) and revised date(s)].

TEXAS PARKS & WILDLIFE

Life's better outside.™

Commissioners

Peter M. Holt
Chairman
San Antonio

T. Dan Friedkin
Vice-Chairman
Houston

Mark E. Bivins
Amarillo

J. Robert Brown
El Paso

Ralph H. Duggins
Fort Worth

Antonio Falcon, M.D.
Rio Grande City

Karen J. Hixon
San Antonio

Margaret Martin
Boerne

John D. Parker
Lufkin

Lee M. Bass
Chairman-Emeritus
Fort Worth

Carter P. Smith
Executive Director

December 9, 2008

Mr. James Wheeler
U.S. Army Readiness Command, Environmental Office
8000 Camp Robinson Road
North Little Rock, AR 72118-2205

RE: Proposed Armed Forces Reserve Center (AFRC) in Amarillo, Potter County

Dear Mr. Wheeler:

Texas Parks and Wildlife Department (TPWD) received the final Environmental Assessment (EA) regarding the above-referenced project. TPWD staff has reviewed the EA and offers the following comments concerning this project.

Project Description

The proposed project entails the relocation of the units at the Tharp U.S. Army Reserve Center to a new AFRC. A new 102,023-square foot building, a 4,002 square-foot vehicle maintenance shop, a 2,565 square-foot organization storage unit, and an 8,973 parking lot would be constructed. Landscaping is also proposed as part of this project. The total amount of disturbed area, including the site of stormwater retention ponds, is expected to be approximately 12 acres, although the preferred site encompasses a total of approximately 25 acres. Three locations including the preferred site and two alternate sites were identified as suitable for the construction of the AFRC. The proposed site is located near the intersection of NE 24th Avenue and Eastern Street and consists of disturbed/fallow field containing various native and non-native grasses and forbs.

As stated in the EA, TPWD was contacted regarding the proposed project prior to the completion of the final EA and provided comments and recommendations on November 4, 2008. A copy of that comment letter was included in the final EA.

Recommendation: Please review previous TPWD recommendations as they remain applicable to the proposed project. Landscaping and revegetation of stormwater retention ponds should utilize existing drainage patterns and appropriate trees, grasses and shrubs native to the immediate

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.state.tx.us

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.

area. Planting vegetation with value for wildlife would further enhance the aesthetics of the area. A list of native plant species that could be used in landscaping and revegetation plans is attached for your reference.

Rare and Protected Species

As stated in the EA, the project site may contain potential habitat for the state listed threatened Texas horned lizard (*Phrynosoma cornutum*) and this species could be present in the project area.

Recommendation: Adverse impacts to Texas horned lizards, as well as their primary food source, the Harvester ant (*Pogonomyrmex* sp.), should be avoided during construction. If horned lizards are discovered in the construction area, TPWD recommends allowing the lizards to safely leave the site. Please note that state listed species such as the Texas horned lizard may only be handled by persons with a scientific collection permit obtained through TPWD. For more information on this permit, please contact the Wildlife Permits Office at (512) 389-4647.

I appreciate the opportunity to review and comment on this project. Please contact me at (512) 389-4579 if we may be of further assistance.

Sincerely,

Julie C. Wicker

Julie C. Wicker
Wildlife Habitat Assessment Program
Wildlife Division

JCW:gg.13399a

Attachment

TEXAS PARKS AND WILDLIFE

Texas Plant Information Database

93 -- Plant(s) are recommended for your site requirements.

Common Name	Scientific Name	Erosion Index	Wildlife Index
PARTRIDGE PEA (PRAIRIE SENNA)	CHAMAECRISTA FASCICULATA	EXCELLENT	GOOD
MAXIMILLIAN SUNFLOWER	HELIANTHUS MAXIMILIANI	EXCELLENT	GOOD
VINE-MESQUITE	PANICUM OBTUSUM	EXCELLENT	GOOD
YELLOW INDIANGRASS	SORGHASTRUM NUTANS	EXCELLENT	EXCELLENT
PRAIRIE CORDGRASS	SPARTINA PECTINATA	EXCELLENT	EXCELLENT
AMERICAN ELDERBERRY	SAMBUCUS CANADENSIS	EXCELLENT	GOOD
SWITCHGRASS	PANICUM VIRGATUM	EXCELLENT	EXCELLENT
COMMON CHOKECHERRY	PRUNUS VIRGINIANA	EXCELLENT	EXCELLENT
CHICKASAW PLUM	PRUNUS ANGUSTIFOLIA	EXCELLENT	EXCELLENT
BIG BLUESTEM	ANDROPOGON GERARDII	EXCELLENT	GOOD
SIDEOATS GRAMA	BOUTELOUA CURTIPENDULA	EXCELLENT	GOOD
COMMON REED	PHRAGMITES AUSTRALIS	EXCELLENT	GOOD
COTTONWOOD	POPULUS DELTOIDES	EXCELLENT	GOOD
ALKALI SACATON	SPOROBOLUS AIROIDES	EXCELLENT	GOOD
COMMON CURLYMESQUITE	HILARIA BERLANGERI	EXCELLENT	GOOD
FRAGRANT SUMAC	RHUS AROMATICA	EXCELLENT	EXCELLENT
SOFTSTEM BULRUSH	SCIRPUS TABERNAEMONTANI (S. VALIDUS)	EXCELLENT	GOOD
SALTMARSH BULRUSH	SCIRPUS MARITIMUS	EXCELLENT	GOOD
OLNEY BULRUSH	SCIRPUS AMERICANUS	EXCELLENT	GOOD
WATER SMARTWEED	POLYGONUM AMPHIBIUM	EXCELLENT	EXCELLENT
PENNSYLVANIA SMARTWEED	POLYGONUM PENSYLVANICUM	EXCELLENT	EXCELLENT
BLACK GRAMA	BOUTELOUA ERIOPODA	EXCELLENT	GOOD
WESTERN WHEATGRASS	ELYTRIGIA SMITHII (AGROPYRON SMITHII)	EXCELLENT	GOOD
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM	EXCELLENT	GOOD
COYOTE WILLOW (SANDBAR WILLOW)	SALIX EXIGUA	EXCELLENT	GOOD
SAND DROPSEED	SPOROBOLUS CRYPTANDRUS	EXCELLENT	GOOD
PURPLETOP	TRIDENS FLAUUS	EXCELLENT	GOOD
BLACK WILLOW	SALIX NIGRA	EXCELLENT	FAIR
RIVERBANK GRAPE	VITIS RIPARIA	EXCELLENT	EXCELLENT
CROTON, SPP.	CROTON, SPP.	EXCELLENT	EXCELLENT
TEXAS PERSIMMON	DIOSPYROS TEXANA	EXCELLENT	GOOD
TEXAS MULBERRY	MORUS MICROPHYLLA	EXCELLENT	GOOD
PINCHOT JUNIPER (REDBERRY JUNIPER)	JUNIPERUS PINCHOTII	EXCELLENT	GOOD
BLUE GRAMA	BOUTELOUA GRACILIS	EXCELLENT	GOOD
GREEN ASH (RED ASH)	FRAXINUS PENNSYLVANICA	EXCELLENT	GOOD
GREEN SPRANGLETOP	LEPTOCHLOA DUBIA	EXCELLENT	GOOD
HACKBERRY	CELTIS OCCIDENTALIS	EXCELLENT	GOOD
HONEY MESQUITE	PROSOPIS GLANDULOSA VAR. GLANDULOSA	EXCELLENT	GOOD
BUFFALOGRASS	BUCHLOE DACTYLOIDES	EXCELLENT	GOOD
DESERT WILLOW	CHILOPSIS LINEARIS	EXCELLENT	FAIR

LOTEBUSH	ZIZYPHUS OBTUSIFOLIA	GOOD	GOOD
EASTERN GAMAGRASS	TRIPSACUM DACTYLOIDES	GOOD	GOOD
FOURWING SALTBUSH	ATRIPLEX CANESCENS	GOOD	GOOD
TROPIC CROTON	CROTON GLANDDULOSUS	GOOD	FAIR
INLAND SALTGRASS	DISTICHLIS SPICATA CAR. STRICTA	GOOD	FAIR
CURLTOP SMARTWEED (WILLOW-WEED)	POLYGONUM LAPTHIFOLIUM	GOOD	FAIR
COMMON BUTTONBUSH	CEPHALANTHUS OCCIDENTALIS	GOOD	GOOD
CANADA WILDRYE	ELYMUS CANADENSIS	GOOD	GOOD
INDIGOBUSH (FALSE INDIGO)	AMORPHA FRUTICOSA	GOOD	GOOD
HAIRY GRAMA	BOUTELOUA HIRSUTA	GOOD	GOOD
SAND LOVEGRASS	ERAGROSTIS TRICHODES	GOOD	GOOD
BLUE SAGE	SALVIA AZUREA	GOOD	FAIR
YELLOW SWEETCLOVER	MELILOTUS OFFICINALIS	GOOD	GOOD
SAND BLUESTEM	ANDROPOGON GERARDII VAR. PAUCIPILUS	GOOD	GOOD
CATCLAW SENSITIVEBRIAR	SCHRANKIA NUTTALLI	GOOD	GOOD
ELBOWBUSH	FORESTIERA PUBESCENS	GOOD	FAIR
MOUNTAIN MAHOGANY	CERCOCARPUS MONTANUS	GOOD	FAIR
INLAND CEANOTHUS (REDROOT)	CEANOTHUS HERBACEUS	GOOD	GOOD
SILVER BLUESTEM	BOTHRIOCHLOA LAGUROIDES	GOOD	FAIR
WESTERN YARROW	ACHILLEA MILLEFOLIUM	GOOD	FAIR
ENGELMANN DAISY	ENGELMANNIA PINNATIFIDA	GOOD	FAIR
TEXAS SIGNALGRASS (TEXAS MILLET)	BRACHIARIA TEXANA	GOOD	FAIR
HEATH ASTER	ASTER ERICOIDES	GOOD	FAIR
PLAINS COREOPSIS (GOLDEN TICKSEED)	COREOPSIS TINCTORIA	GOOD	FAIR
HEARTLEAF AMPELOPSIS	AMPELOPSIS CORDATA	FAIR	GOOD
EASTERN REDBUD	CERCIS CANADENSIS	FAIR	FAIR
SLICK SEED WILDBEAN	STROPHOSTYLES LEIOSPERMA	FAIR	FAIR
REDROOT PIGWEED	AMARANTHUS RETROFLEXUS	FAIR	FAIR
UPRIGHT PRAIRIE CONEFLOWER (MEXICAN HAT)	RATIBIDA COLUMINFERA	FAIR	FAIR
INDIAN BLANKET	GAILLARDIA PULCHELLA	FAIR	FAIR
LITTLE-LEAF SUMAC	RHUS MICROPHYLLA	FAIR	FAIR
FALL PANICUM	PANICUM DICHOTOMIFLORUM	FAIR	FAIR
LEAVENWORTH ERYNGIUM	ERYNGIUM LEAVENWORTHII	FAIR	FAIR
NETLEAF HACKBERRY	CELTIS RETICULATA	FAIR	GOOD
WESTERN RAGWEED	AMBROSIA CUMANENSIS	FAIR	GOOD
PRAIRIE SUNFLOWER	HELIANTHUS PETIOLARIS	FAIR	GOOD
SLIMLEAF SCURFPEA (WILD ALFALFA)	PSORALIDIUM TENUIFLORA	FAIR	FAIR
VIRGINIA TEPHROSIA (GOAT'S RUE)	TEPHROSIA VIRGINIANA	FAIR	FAIR
GOLDEN CURRANT	RIBES AUREUM	FAIR	FAIR
PROSTRATE KNOTWEED	POLYGONUM AVICULARE	FAIR	FAIR
BARNYARD GRASS	ECHINOCHLOA CRUSGALLI VAR. CRUSGALLI	FAIR	GOOD
PURPLE CONEFLOWER	ECHINACEA PALLIDA	FAIR	FAIR
CHOLLA	OPUNTIA (MULTIPLE SPECIES)	FAIR	FAIR
PRICKLYPEAR	OPUNTIA SPP.	FAIR	FAIR
LOW RUELLIA (HAIRY WILD-PETUNIA)	RUELLIA HUMILIS	FAIR	FAIR
AUTUMN SAGE	SALVIA GREGGII	FAIR	LOW
SPIKERUSH	ELEOCHARIS SPP.	FAIR	LOW
WESTERN SOAPBERRY	SAPINDUS SAPONARIA VAR. DRUMMONDII	FAIR	LOW
BEARDED SPRANGLETOP	LEPTOCHLOA FASCICULARIS	LOW	FAIR
FLATSLEDGE	CYPERUS SPP.	LOW	FAIR
BUSHY KNOTWEED	POLYGONUM RAMOSISSIMUM	LOW	LOW
COMMON POOLMAT	ZANNICHELLIA PALUSTRIS	LOW	FAIR
DUCKWEEDS	FAMILY LEMNACEAE	LOW	FAIR

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

DEC 04 2009

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

Dear Mr. Wheeler II:

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Assessment (EA) and Finding of No Significant Impact concerning the proposed establishment of a new Armed Forces Reserve Center in Amarillo, Texas. Our review and comments are in accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA).

The EA documents baseline conditions at the site, anticipated impacts on the environment from construction and operation of the proposed facility, and all coordination activities with State and Federal resource agencies necessary to insure appropriate environmental compliance and minimal environmental effects.

Based upon the environmental assessment information and related correspondence of State and other Federal resource agencies, EPA has no objection to the implementation of the selected alternative. The EA concludes that the action will not have a significant effect on the quality of the environment. Factors closely considered include the effects upon wildlife and fisheries, endangered and threatened species, air quality, noise, cultural/historic resources, social/economic impacts and water quality.

Thank you for this opportunity to comment. If you have any questions, please contact Michael Jansky of my staff at 214/655-7451 or by e-mail at jansky.michael@epa.gov for assistance.

Sincerely yours,

Cathy Gilmore

Cathy Gilmore, Chief
Office of Planning and
Coordination (6ENXP)

Project # 80700005s _ 5-EAs

Amarillo Globe-News
P.O. Box 2091 Amarillo, Texas 806-376-4488
Legal Notice

Amarillo Daily News

GULF SOUTH RESEARCH CORP
8081 GSRI AVE
BATON ROUGE LA 70820

RECEIVED
DEC 01 2008

REFERENCE: 78172658
8112043935 Armed Forces Reserve

THE STATE OF TEXAS
BEFORE ME, a Notary Public in and for the State of Texas, personally appeared

Diane Maynard

LEGAL CLERK of the Amarillo Globe-News Publishing Company, after being by me duly sworn did dispose and state that the above statement is true and correct and the attached was published on the dates set forth therein.

NOTICE OF AVAILABILITY
ENVIRONMENTAL ASSESSMENT
ESTABLISHMENT OF THE
ARMED FORCES RESERVE CENTER
AMARILLO, TEXAS
BRAC 2005

The public is hereby notified of the availability of the Environmental Assessment (EA) and draft Finding of No Significant Impact (FNSI) for the construction and operation of the Armed Forces Reserve Center (AFRC) in Amarillo, Texas. The establishment of the AFRC has been recommended by the Defense Base Closure and Realignment (BRAC) Commission, in response to the Defense Base Closure and Realignment Act of 1990. The EA and FNSI will be available for review for 30 days beginning the day of this publication. Copies are available for review at the following public libraries: Central Library, 413 E 4th, Amarillo, Texas, 79101; North Branch, 1500 NE 24th, Amarillo, Texas, 79107; Northwest Branch, 6100 W 9th, Amarillo, Texas, 79106; East Branch, 2232 E 27th, Amarillo, Texas, 79103; and Southwest Branch, 6801 W 45th, Amarillo, Texas, 79109. Comments and requests for copies should be sent Mr. James Wheeler II, Chief, Environmental Division, 90th Regional Readiness Command, 8000 Camp Robinson Road, North Little Rock, AR 72118-2205.

PUBLISHED ON: 11/23

FILED ON: 11/23/08

Sworn and subscribed to before me the 25th day of Nov 20 08

Margaret Stewart

Notary Public State of Texas

MARGARET STEWART
Notary Public
State of Texas
My Comm. Exp. 05-22-10

APPENDIX D
EIFS Model Results

Analysis of Socioeconomic Effects For Amarillo Reserve Center Realignment for BRAC05

Introduction

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

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

The Model:

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

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

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

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

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

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

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

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

NEPA Process Improvement:

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

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

Determining Significance:

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

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

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

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

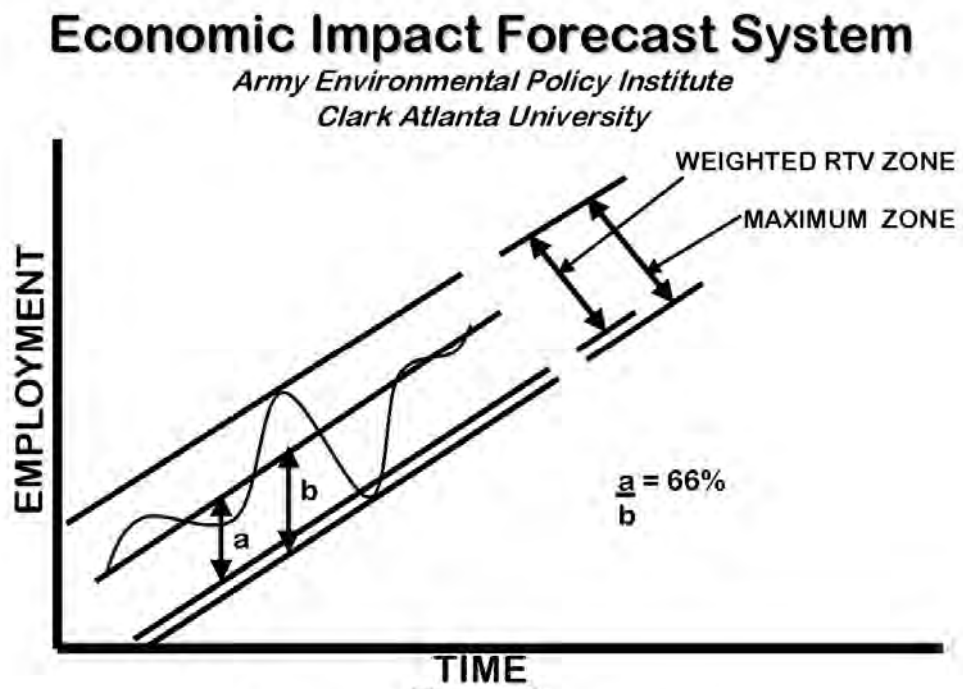


Figure 10
Visual Depiction of the RTV Technique

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

	Increase	Decrease
Total sales volume	100 percent	75 percent
Total employment	100 percent	66 percent
Personal Income	100 percent	66 percent
Total population	100 percent	50 percent

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

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

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

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

The Application of EIFS to the Proposed Action

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

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

In the case of the Amarillo realignment, no change in civilian or military strength in the region will occur, given the close proximity of the existing (combining) affected sites. The only exogenous economic stimulus will be associated with the construction of some 108,000 square feet of new facilities. This will involve some $24 million dollars in construction expenditures and land acquisition.

For this analysis, the Amarillo Metropolitan Statistical Area (MSA) was selected as the ROI, consisting of Armstrong, Carson, Potter, and Randall counties.

The estimated inputs were used to produce EIFS reports (model results) for changes in total business volume, employment, income, and population. These are best shown as percentages (of the activity in the total ROI), and can be prepared to the RTVs for that variable in that ROI. The following EIFS documentation is provided; detailing the inputs, documenting projected changes, and evaluating the potential significance of the predicted change, based on the RTV technique:

Economic Impact Forecast System

EIFS REPORT

PROJECT NAME

Amarillo AFRC

STUDY AREA

48011	Armstrong, TX
48065	Carson, TX
48375	Potter, TX
48381	Randall, TX

FORECAST INPUT

Change In Local Expenditures	$24,000,000
Change In Civilian Employment	0
Average Income of Affected Civilian	$0
Percent Expected to Relocate	0
Change In Military Employment	0
Average Income of Affected Military	$0
Percent of Military Living On-post	0

FORECAST OUTPUT

Multiplier	2.81	
Sales Volume - Direct	$12,882,560	
Sales Volume - Induced	$23,317,440	
Sales Volume - Total	$36,200,000	0.37%
Income - Direct	$2,365,861	
Income - Induced	$4,282,208	

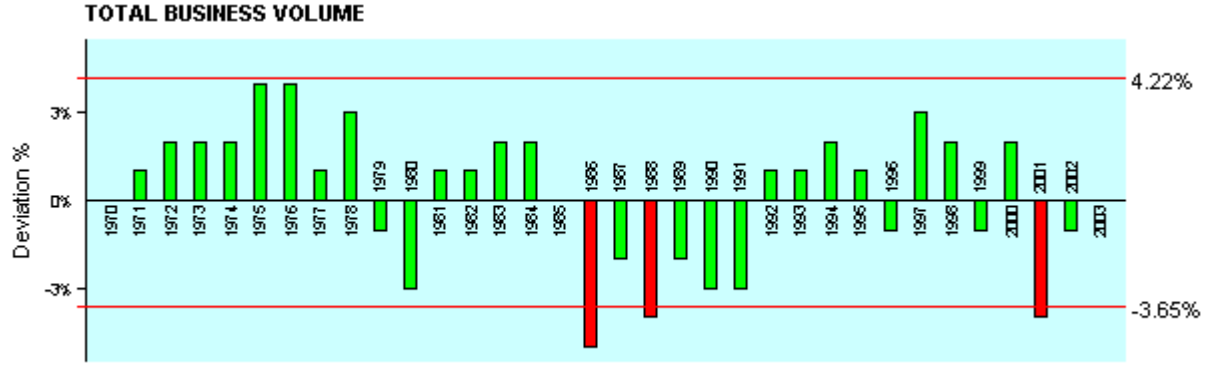
Income - Total	$6,648,069	0.14%
Employment - Direct	73	
Employment - Induced	132	
Employment - Total	206	0.16%
Local Population	0	
Local Off-base Population	0	0%

RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	4.22 %	8.37 %	6.72 %	2.07 %
Negative RTV	-3.65 %	-3.78 %	-5.11 %	-5.59 %

RTV DETAILED

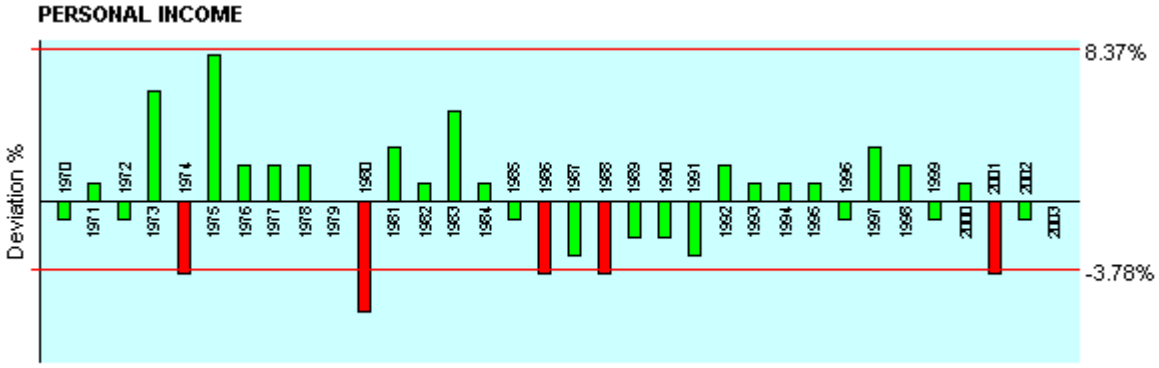
SALES VOLUME



Year	Value	Adj_Value	Change	Deviation	% Deviation
1969	1004588	5284133	0	-200913	0
1970	1100352	5479753	195620	-5293	-0.1
1971	1202236	5734666	254913	54000	0.94
1972	1306202	6034653	299988	99075	1.64
1973	1469362	6391725	357071	156158	2.44
1974	1719676	6723933	332208	131295	1.95
1975	2013928	7230002	506068	305155	4.22
1976	2281550	7757270	527268	326355	4.21
1977	2528124	8064716	307446	106533	1.32
1978	2886966	8545419	480704	279791	3.27
1979	3252102	8650591	105172	-95741	-1.11
1980	3661402	8567681	-82911	-283824	-3.31
1981	4166644	8874952	307271	106358	1.2
1982	4571094	9142188	267236	66323	0.73
1983	4919870	9544548	402360	201447	2.11

1984	5367156	9982910	438362	237449	2.38
1985	5668310	10202958	220048	19135	0.19
1986	5637016	9921148	-281810	-482723	-4.87
1987	5809604	9876327	-44821	-245734	-2.49
1988	5931262	9667957	-208370	-409283	-4.23
1989	6223962	9709381	41424	-159489	-1.64
1990	6476716	9650307	-59074	-259987	-2.69
1991	6706254	9522881	-127426	-328339	-3.45
1992	7138776	9851511	328630	127717	1.3
1993	7542664	10107170	255659	54746	0.54
1994	8077258	10500435	393266	192353	1.83
1995	8523050	10824274	323838	122925	1.14
1996	8861342	10899451	75177	-125736	-1.15
1997	9510422	11412506	513056	312143	2.74
1998	10003274	11903896	491390	290477	2.44
1999	10289056	11935305	31409	-169504	-1.42
2000	11040380	12365226	429921	229008	1.85
2001	11071572	12068013	-297212	-498125	-4.13
2002	11344396	12138504	70490	-130423	-1.07
2003	11729606	12316086	177583	-23330	-0.19

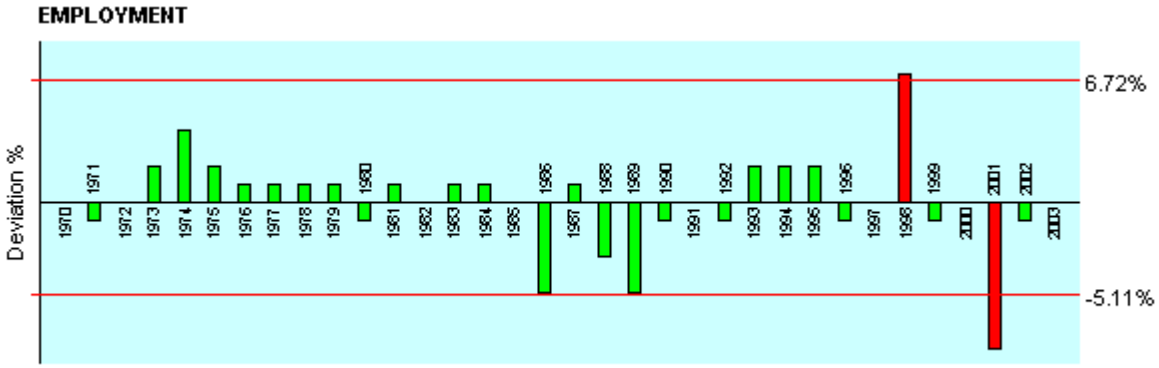
INCOME



Year	Value	Adj_Value	Change	Deviation	% Deviation
1969	535858	2818613	0	-97500	0
1970	581737	2897050	78437	-19063	-0.66
1971	636723	3037169	140118	42618	1.4
1972	674633	3116804	79636	-17864	-0.57
1973	788101	3428239	311435	213935	6.24
1974	864892	3381728	-46512	-144012	-4.26
1975	1057683	3797082	415354	317854	8.37

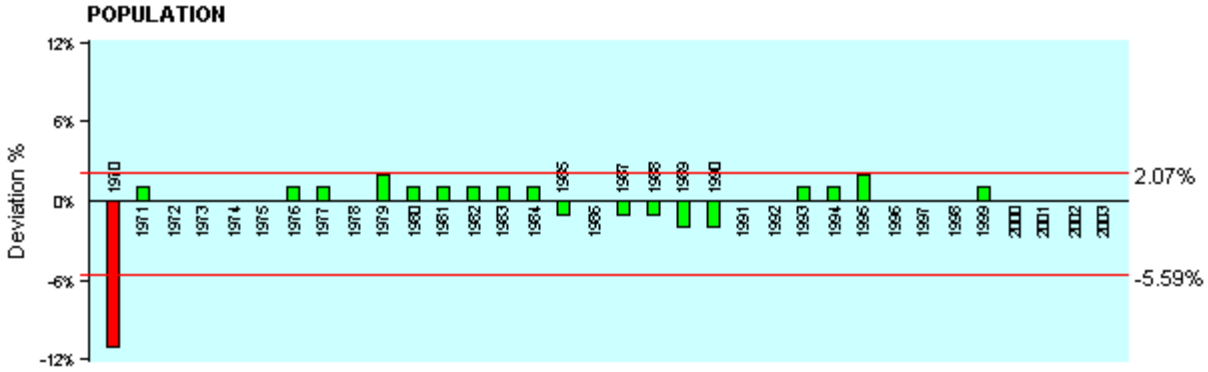
1976	1169227	3975372	178290	80790	2.03
1977	1298270	4141481	166110	68610	1.66
1978	1467015	4342364	200883	103383	2.38
1979	1663876	4425910	83546	-13954	-0.32
1980	1829957	4282099	-143811	-241311	-5.64
1981	2111463	4497416	215317	117817	2.62
1982	2312049	4624098	126682	29182	0.63
1983	2555688	4958035	333937	236437	4.77
1984	2743197	5102346	144312	46812	0.92
1985	2870512	5166922	64575	-32925	-0.64
1986	2863841	5040360	-126561	-224061	-4.45
1987	2929012	4979320	-61040	-158540	-3.18
1988	2999374	4888980	-90341	-187841	-3.84
1989	3148801	4912130	23150	-74350	-1.51
1990	3299904	4916857	4727	-92773	-1.89
1991	3416283	4851122	-65735	-163235	-3.36
1992	3647426	5033448	182326	84826	1.69
1993	3860233	5172712	139264	41764	0.81
1994	4089999	5316999	144286	46786	0.88
1995	4299067	5459815	142816	45316	0.83
1996	4474471	5503599	43784	-53716	-0.98
1997	4807445	5768934	265335	167835	2.91
1998	5055801	6016403	247469	149969	2.49
1999	5217821	6052672	36269	-61231	-1.01
2000	5564884	6232670	179998	82498	1.32
2001	5597167	6100912	-131758	-229258	-3.76
2002	5729600	6130672	29760	-67740	-1.1
2003	5934400	6231120	100448	2948	0.05

EMPLOYMENT



Year	Value	Change	Deviation	% Deviation
1969	70517	0	-1980	0
1970	72712	2195	215	0.3
1971	73641	929	-1051	-1.43
1972	75411	1770	-210	-0.28
1973	78987	3576	1596	2.02
1974	84369	5382	3402	4.03
1975	88396	4027	2047	2.32
1976	91307	2911	931	1.02
1977	94078	2771	791	0.84
1978	97010	2932	952	0.98
1979	100183	3173	1193	1.19
1980	101182	999	-981	-0.97
1981	103874	2692	712	0.69
1982	105863	1989	9	0.01
1983	108926	3063	1083	0.99
1984	112536	3610	1630	1.45
1985	114456	1920	-60	-0.05
1986	110387	-4069	-6049	-5.48
1987	113052	2665	685	0.61
1988	112065	-987	-2967	-2.65
1989	108910	-3155	-5135	-4.71
1990	109942	1032	-948	-0.86
1991	111717	1775	-205	-0.18
1992	112548	831	-1149	-1.02
1993	117426	4878	2898	2.47
1994	122415	4989	3009	2.46
1995	126500	4085	2105	1.66
1996	127606	1106	-874	-0.68
1997	129690	2084	104	0.08
1998	141151	11461	9481	6.72
1999	142177	1026	-954	-0.67
2000	144486	2309	329	0.23
2001	136083	-8403	-10383	-7.63
2002	137201	1118	-862	-0.63
2003	139832	2631	651	0.47

POPULATION



Year	Value	Change	Deviation	% Deviation
1969	168160	0	-1868	0
1970	152933	-15227	-17095	-11.18
1971	155610	2677	809	0.52
1972	157911	2301	433	0.27
1973	159145	1234	-634	-0.4
1974	160913	1768	-100	-0.06
1975	163428	2515	647	0.4
1976	166914	3486	1618	0.97
1977	170593	3679	1811	1.06
1978	173322	2729	861	0.5
1979	178887	5565	3697	2.07
1980	183259	4372	2504	1.37
1981	186302	3043	1175	0.63
1982	190209	3907	2039	1.07
1983	193302	3093	1225	0.63
1984	196434	3132	1264	0.64
1985	196943	509	-1359	-0.69
1986	198209	1266	-602	-0.3
1987	198034	-175	-2043	-1.03
1988	198748	714	-1154	-0.58
1989	197331	-1417	-3285	-1.66
1990	196215	-1116	-2984	-1.52
1991	198401	2186	318	0.16
1992	201124	2723	855	0.43
1993	204975	3851	1983	0.97
1994	208983	4008	2140	1.02
1995	215176	6193	4325	2.01
1996	217579	2403	535	0.25
1997	219752	2173	305	0.14

1998	221447	1695	-173	-0.08
1999	224469	3022	1154	0.51
2000	227082	2613	745	0.33
2001	228738	1656	-212	-0.09
2002	230802	2064	196	0.08
2003	233555	2753	885	0.38

Summary of Results

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

	projected change	RTV
Business (sales) volume	0.37%	4.22%
Income	0.14%	8.37%
Employment	0.16%	6.72%
Population	0.0%	2.07%

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

As this project involves the purchase of land from private sources, some local tax revenues will be reduced from the purchase and utilization by the government, which is tax exempt. The purchase price of this land is approximately $635,000. Applying the published Amarillo composite property tax rate of $0.63 per $100 of assessed evaluation to this purchase price, this will yield a maximum reduction of $3999 per year in tax revenues. This is significant overestimate of the lost tax revenues, as the “assessed value” of this property is less than the purchase price. This loss in tax revenue will be easily offset by the exogenous influx of construction expenditures during the 2-3 years of the construction phase of the proposed action and the indicated multiplier affect. While development of the property for other commercial or non-government uses would produce additional revenues, such development is speculative and cannot be ascertained without more specific information.