

Final
Environmental Assessment
for the Construction of an Army Reserve
Center and Implementation of 2005 Base
Realignment and Closure Actions at
Kirksville, Missouri



Prepared for:
U.S. Army Reserve
88th Regional Support Command

Prepared By:
U.S. Army Corps of Engineers
Mobile District

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FINAL
FINDING OF NO SIGNIFICANT IMPACT (FNSI)
For the Construction of an Army Reserve Center and Implementation of 2005 Base Realignment
and Closure Actions at
Kirksville Army Reserve Training Center, Missouri

Pursuant to the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) (40 Code of Federal Regulations [CFR] 1500-1517) and the U.S. Department of Army Regulation 32 CFR 651 (Environmental Analysis of Army Actions; Final Rule), the U.S. Army Corps of Engineers, Mobile District, has prepared an Environmental Assessment (EA) of potential environmental effects associated with implementation of BRAC actions at Kirksville Army Reserve Training Center, Missouri.

PURPOSE AND NEED

On September 8, 2005, the Defense Base Realignment and Closure Commission (“BRAC Commission”) recommended that certain realignment actions occur to units supported by the U.S. Army Reserve 88th Regional Support Command (RSC) (formerly the 89th Regional Readiness Command). Supporting the Army Reserve Transformation and Reorganization, the 88th Regional Support Command being stood up at Ft McCoy Wisconsin will encompass area of responsibility of the former 70th, 88th, 89th, and 96th Regional Readiness Commands. End state is consolidated functions for the nineteen-state region (Washington, Oregon, Idaho, Montana, Wyoming, Utah, Colorado, North Dakota, South Dakota, Nebraska, Kansas, Iowa, Missouri, Minnesota, Wisconsin, Illinois, Michigan, Indiana, and Ohio) by executing the transfer of base operations and regional support functions from the 70th, 88th, 89th, and 96th RRCs, who disestablish in July 2009. The recommended realignment actions are to occur on the site of the U.S. Army Reserve Center (USARC) in Greentop (MO). 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.

The BRAC Commission made the following recommendation concerning Kirksville: “Close the Greentop United States Army Reserve Center located in Greentop, MO, and relocate units to a new United States Army Reserve Center in Kirksville, MO, if the Army is able to acquire suitable land for the construction of the facilities.” To enable implementation of these recommendations, the Army proposes to provide necessary facilities to support the changes in force structure.

DESCRIPTION OF THE PROPOSED ACTION

To support the BRAC recommendations, the proposed action includes construction of a new 100-member USARC, unheated storage building, and organizational parking at a new site Kirksville, MO. The new USARC (21,175 square foot (SF)) would provide administrative, educational, assembly, library, learning center, vault, and physical fitness areas for two Army Reserve units. The proposed action would also provide for unit storage (458 SF) and adequate parking space for all privately-owned vehicles.

ALTERNATIVES CONSIDERED

Preferred Alternative. The Preferred Alternative site is located at the northwest corner of Industrial Road and Millen Avenue (Rye Creek Road) in Kirksville, MO. The site consists of approximately 6.51 acres of government-owned land (under control of the Army Reserve) as well as approximately 4.6 acres of privately-owned land which are adjacent to the 6.51 acre government-owned land. The topography on the site is relatively level, and is currently used as pastureland. The site is outside the 100-year floodplain and is zoned light industrial.

Alternative 2. Alternative 2 is located 0.5 mile east of Highway 63 and 0.5 north of Highway 6 at the northwest corner of South Jameson and East La Harpe in Kirksville, MO. The site is approximately 18 acres, and outside of the 100-year floodplain. The site is vacant and unimproved and is zoned institutional.

No-Action Alternative. The No Action Alternative is included as required by the CEQ regulations to identify the existing baseline conditions against which potential impacts are evaluated. The No Action Alternative must be described because it is the baseline condition or the current status of the environment. For realignment actions directed by the BRAC Commission, it is noted that the No Action Alternative is not feasible.

ENVIRONMENTAL IMPACTS SUMMARY

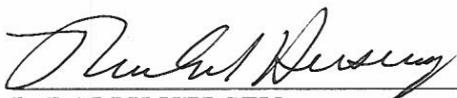
Twelve environmental and socioeconomic resource areas were characterized and evaluated for potential impacts from the Preferred Alternative, Alternative 2 and the No Action Alternative. No potential impacts were classified as significant. Implementation of the proposed action at the Preferred Alternative or Alternative 2 site would result in minor, short-term impacts to aesthetics, air quality, noise, socioeconomics, and transportation. Implementation of the proposed action at the Preferred Alternative or Alternative 2 site would result in minor, short-term and long-term impacts to land use, geology and soils, water resources, biological resources, utilities, and hazardous and toxic materials. No impacts to cultural resources are anticipated. The proposed action, when combined with other past, present, and reasonably foreseeable future projects in the general vicinity, would not result in significant cumulative impacts.

CONCLUSION

Direct, indirect, and cumulative impacts of the Preferred Alternative, Alternative 2 and the No Action Alternative have been considered. No significant adverse impacts from the Preferred Alternative were identified. Therefore, the issuance of a FNSI is warranted, and preparation of an environmental impact statement is not required.

PUBLIC COMMENT

Public comment was invited for a period of 30 days after publication of the notice of availability Kirksville Daily Express. A copy of the EA and draft final FNSI were made available for public review at the Adair County Public Library in Kirksville, Missouri and on the internet at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm. No comments were received.



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04/06/09
Date

ENVIRONMENTAL ASSESSMENT
U.S. ARMY RESERVE CENTER
KIRKSVILLE, MISSOURI

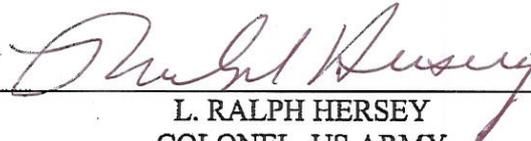
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EXECUTIVE SUMMARY

ES.1 Introduction

This environmental assessment (EA) analyzes and documents environmental effects associated with the U.S. Army's Proposed Action at the U.S. Army Reserve Center (USARC) ("Kirksville") in Kirksville, Missouri. This action is to support the U.S. Army Reserve 88th Regional Support Command (RSC) (formerly the 89th Regional Readiness Command). Supporting the Army Reserve Transformation and Reorganization, the 88th Regional Support Command being stood up at Ft McCoy Wisconsin will encompass area of responsibility of the former 70th, 88th, 89th, and 96th Regional Readiness Commands. End state is consolidated functions for the nineteen-state region (Washington, Oregon, Idaho, Montana, Wyoming, Utah, Colorado, North Dakota, South Dakota, Nebraska, Kansas, Iowa, Missouri, Minnesota, Wisconsin, Illinois, Michigan, Indiana, and Ohio) by executing the transfer of base operations and regional support functions from the 70th, 88th, 89th, and 96th RRCs, who disestablish in July 2009. To enable implementation of Base Realignment and Closure (BRAC) recommendations, the Army proposes to provide necessary facilities to support the changes in force structure.

This EA was developed in accordance with the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.), Chapter 5 (32 Code of Federal Regulations (CFR) Part 651), and implementing regulations issued by the President's Council on Environmental Quality (CEQ) (40 CFR Parts 1500-1508) as well as guidance provided by the 2006 Army BRAC NEPA Manual.

ES.2 Background and Setting

The Preferred Alternative site is located northwest of the intersection of Industrial Road and Millen Avenue (Rye Creek Road) in Kirksville, Adair County, Missouri. It is approximately 2 miles northwest of Kirksville's city center. The site consists of approximately 6.51 acres of government-owned land (under control of the Army Reserve) as well as approximately 4.6 acres of privately-owned land which are adjacent to the 6.51 acre government-owned land.

Alternative 2 is located 0.5 mile east of Highway 63 and 0.5 mile north of Highway 6 at the northwest corner of South Jameson and East La Harpe in Kirksville, MO. It is approximately 2 miles southeast of Kirksville's city center. The site consists of 18 acres of privately-owned land.

ES.3 Proposed Action

To support the BRAC recommendations, the Proposed Action includes the construction of a new 100-member USARC, unheated storage building, and organizational parking at a new site in Kirksville, Missouri. The new USARC would provide administrative, educational, assembly, library, learning center, vault, and physical fitness areas for two Army Reserve units. The Proposed Action would also provide for unit storage and adequate parking space for all privately-owned vehicles. The Army estimates that construction would begin in March 2010, and would be completed in March 2011.

The USARC complex would consist of the following:

- 21,175 square foot USARC
- 458 square foot unheated storage
- 24,948 square foot organizational parking

Personnel to use the facility consists of 5 full time users, and up to 90 reservists for a drill weekend. Adequate parking spaces for privately-owned vehicles (POVs) would be provided.

ES.4 Alternatives

Potential sites for the new USARC were screened for inclusion in this EA. Screening criteria consists of safety constraints, geographic and institutional constraints, environmental and topographic constraints, existing facility and mission constraints, and operational constraints.

Twelve sites (including the Preferred Alternative and Alternative 2) were considered by the Site Survey Team (consisting of representatives from 88th RSC, Assistant Chief of Staff for Installation Management (ACSIM), U.S. Army Corps of Engineers (USACE) Kansas City, and the local Reserve Unit) for the BRAC action at Kirksville, MO. Ten sites were eliminated from further consideration in the EA because they did not meet the screening criteria. One action alternative (Preferred Alternative), one additional alternative (Alternative 2), and the No Action Alternative were carried forward for evaluation in this EA.

The No Action Alternative is included as required by the CEQ regulations to identify the existing baseline conditions against which potential impacts are evaluated.

ES.5 Environmental Consequences

Twelve environmental and socioeconomic resource areas were characterized and evaluated for potential impacts from the Preferred Alternative, Alternative 2, and the No Action Alternative. Significance criteria were developed for the affected resource categories, and for many resource categories, are necessarily qualitative in nature. No potential impacts were classified as significant. Potential impacts of the Proposed Action identified for each resource area are summarized below.

Land Use. Potential impacts to land use from the Preferred Alternative or Alternative 2 would not be significant. Neither alternative would present conflicts or nonconformance with existing land use or zoning designations. There would be no conflict with adjacent land uses from either alternative since the project would not divide any communities, require any changes to land use or zoning maps, and would not interfere with the existing surrounding agricultural, institutional and light industrial land uses.

Aesthetics and Visual Resources. The Preferred Alternative and Alternative 2 would cause short-term, minor visual impacts on the property resulting from ground disturbance associated with construction of the proposed facilities. However, the reclamation of

disturbed areas would remove these visual impacts. Operations at the USARC would result in minor adverse aesthetic impacts, including increased traffic and nighttime light, resulting from increased use during weekends when the facilities are in use by tenant organizations. The addition of the proposed facility would have negligible effects on the area viewshed because the structures would be consistent with the overall context of the area.

Air Quality. Overall, potential impacts to air quality from the Preferred Alternative or Alternative 2 would not be significant. Short-term air quality impacts from the Proposed Action would occur from construction and demolition activities associated with the movement of heavy equipment. Construction activities would be temporary and would occur in a localized area. Construction activities would generate particulate matter, vehicle emissions, and increased wind-borne dust (i.e. fugitive dust).

Long-term air quality impacts associated with operation of the proposed USARC are not likely to occur. No fueling facilities, underground storage tanks (USTs), or paint booths would be required for the USARC. The vehicles associated with the use of these facilities by reservists would not be expected to result in significant impacts to air quality because there would be no net gain of personnel in the airshed, the proposed users would be relocating from facilities within the same airshed.

Noise. Noise associated with the Preferred Alternative or Alternative 2 would be generated by standard construction equipment. Only a minor increase in ambient noise levels is expected to occur. Noise would also be generated by increased construction traffic on area roadways, but would be limited to certain times of the day.

After construction, noise from the day-to-day operations of the new USARC and associated facilities are not expected to increase significantly. The new USARC would provide predominantly administrative, educational, assembly, and physical fitness areas for the two Army Reserve units. There will be no weapons firing at the new facility. Noise generated by privately owned vehicles (POV) vehicles will be negligible compared to existing noise in the surrounding area.

Geology and Soils. Potential impacts to geology and soils from the Preferred Alternative or Alternative 2 would not be significant. The proposed facilities would reduce water infiltration by capping the subsoil with impervious surfaces. The Proposed Action would result in the long-term addition of approximately 1 acre of impervious surfaces to the property. Construction of a new USARC and parking facilities would disturb existing ground cover and increase the potential for soil erosion during the site preparation and construction phases. Best Management Practices (BMPs) for erosion control, topsoil management, and revegetation would be required and stated in the construction contract, and would minimize the potential effects.

Water Resources. Potential impacts to water resources from the Preferred Alternative or Alternative 2 would not be significant. There would be no measurable reduction in surface water quality or availability. By capping the subsoil with impervious surfaces, the Proposed Action would reduce groundwater recharge locally over the long term by

reducing the infiltration of precipitation. The proposed training facility and organizational parking would result in the addition of approximately 1 acre of impervious surfaces. This reduction of groundwater recharge would not have a significant impact on regional groundwater supplies. Potential nonpoint source storm water impacts would not be significant with implementation of BMPs, and should be described in a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would be modified, as needed, to address site specific requirements and monitoring. Point discharges of wastewater are prohibited by existing National Pollutant Discharge Elimination System (NPDES) requirements under the Clean Water Act (CWA). Any spills would be mitigated using procedures identified in the Spill Prevention Control and Countermeasures (SPCC) plan to reduce potential impacts to surface water or groundwater. The proposed site would be permitted for stormwater regulations as required by the Missouri Department of Natural Resources (MDNR).

Because the Proposed Action does not entail construction within the 100-year floodplain, there would be no impacts to floodplains from the Proposed Action, and there are no impacts to Proposed Action structures caused by building in a floodplain.

Biological Resources. Impacts to common flora and fauna would result from construction activities. Indirect impacts would be associated with loss of habitat. The project would disturb approximately 1 acre of grassland, with these areas being converted to buildings, pavement, gravel, and associated landscaped areas. During site preparation, all plants would be eliminated from the construction area and limited incidental animal injury or mortality could occur. Construction activity may have a temporary impact on wildlife movements but will pose no long-term threat to the populations.

The MDNR Heritage Review Report did not identify any records of federally- or state-listed species on the Preferred Alternative or Alternative 2 site; therefore no impacts to protected species are anticipated to occur. Informal consultation with U.S. Fish and Wildlife Service (USFWS) was conducted for the Preferred Alternative site, USFWS concurred that no federally-listed species or designated critical habitats occur within the project area.

No wetlands have been identified on the Preferred Alternative site, therefore no impacts to wetlands are anticipated. No wetlands on the Alternative 2 site were identified from the National Wetlands Inventory; however, if this site is selected, a more detailed analysis of wetlands would need to be conducted.

Cultural Resources. No significant negative impacts to architectural resources would be likely as a result of implementation of the Proposed Action. No buildings listed, eligible for listing, or potentially eligible for listing on the National Register of Historic Places (NRHP) occur in the Preferred Alternative or Alternative 2 project area.

Preferred Alternative

No significant negative impacts to archaeological resources would be likely as a result of implementation of the proposed action. Phase I cultural resources investigations of the 11+/- acre project area were conducted in 2007 and 2008. All shovel tests were negative

for cultural material and no resources were found that were potentially eligible for the National Register. A letter was received from the State Historic Preservation Office (SHPO) dated December 1, 2008 concurring that no Historic Properties would be affected within the proposed project area.

Alternative 2

On Monday, January 05, 2009 a review of the MDNR Adair County National Register Listings on-line database and the National Park Services' National Historic Landmarks Program and National Register Information System on-line databases was conducted. At that time, no National Register of Historic Places properties or districts, or National Historic Landmarks were recorded on or within the Area of Potential Effects (APE) of the Alternative 2 project location. This review did not include an exhaustive search of recorded archeological sites, or consultation with SHPO. Should this site location be selected, a Phase I Cultural Resources Survey would need to be conducted.

Socioeconomics. No significant negative impacts to socioeconomics would be likely as a result of implementation of the Preferred Alternative or Alternative 2. In the short term, expenditures in the local economy for goods and services and direct employment associated with construction would increase sales volume, employment, and income in the Region of Influence (ROI). The economic benefits would be temporary, lasting only for the duration of the construction period. There would be no measureable change in long-term employment, population, housing, or community services because the Proposed Action involves the relocation of existing personnel within the ROI.

Environmental Justice

Construction and operation of the proposed USARC would not result in adverse impacts associated with air quality, noise, groundwater, surface water, or hazardous materials and wastes. Safety measures to protect pedestrians, including children, would be implemented during construction. For these reasons, the proposed action would have no effect on environmental justice or protection of children.

Transportation. Potential transportation impacts from the Preferred Alternative or Alternative 2 would not be significant. During the construction phases of the Proposed Action, a temporary increase in vehicular traffic into and out of the proposed USARC site is expected, including the use of heavy equipment. With the construction of new POV parking areas, it is projected that the surrounding area would be able to accommodate the increase of 5 full-time employees during the week. As a reserve facility, a maximum of 90 training personnel reporting for reserve duty primarily access the site on drill weekends. There would be an increase in POV traffic (approximately 90 commuters) to and from the facility on weekends, but this is considered minor because it would be on weekends, when local traffic at the surrounding industrial park is less than normal weekday averages.

Utilities. Overall, potential impacts to utilities from the Preferred Alternative or Alternative 2 are not anticipated to be significant. Utility usage at the new USARC complex would be comparable to that at the existing site, and water would be supplied by

the same entity (City of Kirksville), therefore impacts to the local utility system would be minor.

Hazardous and Toxic Substances. The proposed USARC would consist primarily of training and office space as well as administrative service areas. There would be minimal use of hazardous materials, such as janitorial products and printing supplies. Any hazardous materials will be handled and stored in accordance with applicable regulations and label precautions. The addition of privately owned vehicles would result in a negligible increase in the chance of leaks and spills. A draft Environmental Condition of Property (ECP) Report revealed no evidence of Recognized Environmental Conditions (RECs) in connection with the Preferred Alternative site. No ECP has been conducted for the Alternative 2 site.

Cumulative Impacts. Cumulative impacts were evaluated by considering the impacts of the proposed action in conjunction with other past, present, and reasonably foreseeable actions. The only reasonably foreseeable actions identified within the 1-mile radius of the Preferred Alternative are potential light industrial business coming into the Industrial Park. There were no specific foreseeable actions identified within the 1-mile radius of Alternative 2. The 12 environmental and socioeconomic resources were evaluated for potential cumulative impacts. No significant cumulative impacts are anticipated to occur.

ES.6 Mitigation Responsibility

No mitigation measures are required for the Preferred Alternative discussed in this EA because resulting impacts are not significant. If Alternative 2 is selected, additional studies would need to be conducted and mitigation may be required.

ES.7 Findings and Conclusions

Direct, indirect, and cumulative impacts of the Preferred Alternative, Alternative 2 and the No Action Alternative have been considered. No significant adverse impacts were identified. Therefore, the issuance of a Finding of No Significant Impact (FNSI) is warranted, and preparation of an environmental impact statement is not required

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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 realignment actions occur to the 88th Regional Support Command (RSC) (formerly the 89th Regional Readiness Command. Supporting the Army Reserve Transformation and Reorganization, the 88th Regional Support Command being stood up at Ft McCoy Wisconsin will encompass area of responsibility of the former 70th, 88th, 89th, and 96th Regional Readiness Commands. End state is consolidated functions for the nineteen-state region (Washington, Oregon, Idaho, Montana, Wyoming, Utah, Colorado, North Dakota, South Dakota, Nebraska, Kansas, Iowa, Missouri, Minnesota, Wisconsin, Illinois, Michigan, Indiana, and Ohio) by executing the transfer of base operations and regional support functions from the 70th, 88th, 89th, and 96th RRCs, who disestablish in July 2009. The recommended realignment actions are to occur on the site of the United States Army Reserve Center in Greentop, Missouri (MO). 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.

The BRAC Commission has recommended the closure of the United States Army Reserve Center (USARC) located in Greentop, MO and relocation of Army Reserve units to a new USARC in Kirksville, MO. To enable implementation of these recommendations, the Army proposes to provide necessary facilities to support the changes in force structure. The proposed new facilities consist of a training facility, an unheated storage building, and parking facilities. This environmental assessment (EA) analyzes and documents environmental effects associated with the Army’s proposed action at Kirksville, MO. Figure 1-1 shows the location of the existing Army Reserve Center, and the proposed sites evaluated in this EA. Details of the Proposed Action are described in Section 2.0.

1.2 Purpose and Need

The purpose of the Proposed Action is to implement the BRAC Commission’s recommendations pertaining to Kirksville, MO. The need for the Proposed Action is to improve the ability of the Nation to respond rapidly to challenges of the 21st century. The Army is legally bound to defend the United States and its territories, support national policies and objectives, and defeat nations responsible for aggression that endangers the peace and security of the United States. To carry out these tasks, the Army must adapt to changing world conditions and must improve its capabilities to respond to a variety of circumstances across the full spectrum of military operations. The following discusses three major initiatives that contribute to the Army’s need for the proposed action.

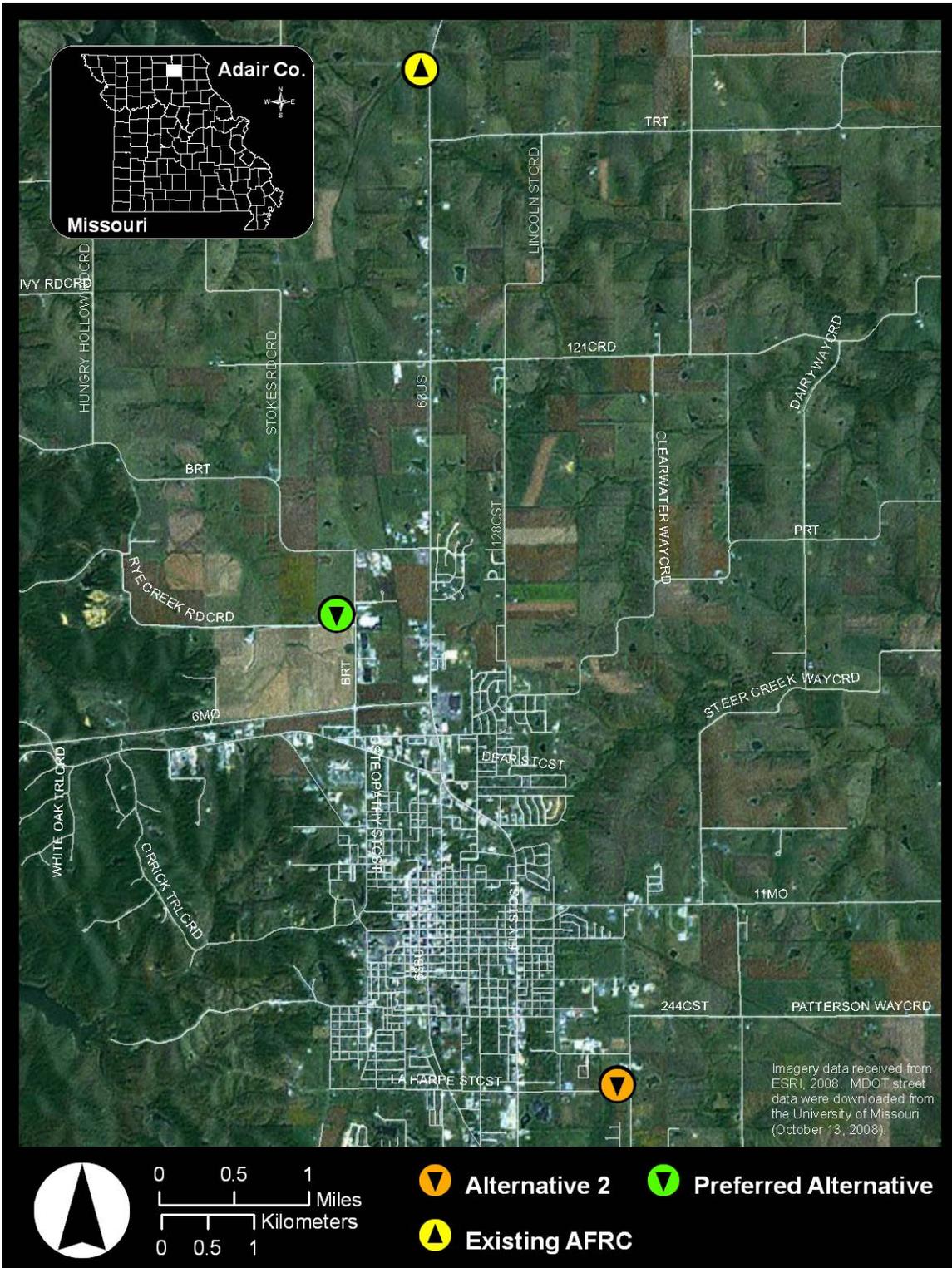


Figure 1-1. Regional Location Map, Kirksville, MO

Base Realignment and Closure. In previous rounds of BRAC, the explicit goal was to save money and downsize the military in order to reap a “peace dividend.” In the 2005 BRAC round, U.S. Department of Defense (DoD) sought to reorganize its installation infrastructure to most efficiently support its forces, increase operational readiness and facilitate new ways of doing business. Thus, BRAC represents more than cost savings. It supports advancing the goals of transformation, improving military capabilities, and enhancing military value. The Army needs to carry out the BRAC recommendations at Kirksville, MO in order to achieve the objectives for which Congress established the BRAC process.

1.3 Scope

This EA has been developed in accordance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations issued by the President’s Council on Environmental Quality (CEQ) (40 Code of Federal Regulations (CFR) Parts 1500-1508) and Federal Regulation 32 CFR Part 651. Its purpose is to inform decision makers and the public of the likely environmental consequences of the Proposed Action and Alternatives.

This EA identifies, documents, and evaluates environmental effects of realignments at Kirksville, MO. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, historians, and military technicians has analyzed the Proposed Action and alternatives in light of existing conditions and has identified relevant beneficial and adverse effects associated with the action. The Proposed Action is described in Section 2.0, and alternatives, including the No Action alternative, are described in Section 3.0. Conditions existing as of 2005, considered to be the baseline conditions are described in Section 4.0, Affected Environment and Environmental Consequences. 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 addressed in the EA. Section 4.0 also addresses the potential for cumulative effects, and mitigation measures are identified where appropriate.

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

1.4 Public Involvement

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

Public participation opportunities with respect to this EA and decision making on the proposed action are guided by 32 CFR Part 651. The EA is available to the public for 30 days, along with a draft Finding of No Significant Impact (FNSI). At the end of the 30-day public review period, the Army considers all comments submitted by individuals, agencies, or organizations on the Proposed Action, the EA, and draft FNSI. As appropriate, the Army then executes the FNSI and proceeds with implementation of the Proposed Action. If it is determined prior to issuance of a final FNSI that implementation of the Proposed Action would result in significant impacts, the Army publishes in the *Federal Register* a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS), or commits to mitigation actions sufficient to reduce impacts below significance levels.

A Notice of Availability (NOA) is published in the Kirksville *Daily Express*, which announces the beginning of the 30-day public review period. The EA and Draft FNSI are available during the public comment period on the internet at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm, and are also available for review during the public comment period at the Adair County public library in Kirksville, MO.

Reviewers are invited to submit comments on the EA and Draft FNSI during the 30-day public comment period via mail, fax, or e-mail to the following:

Mr. William S. Titterington
Environmental Division Chief
88th RSC ARIM
3130 George Washington Blvd.
Wichita, Kansas 67210-1598
316-652-2324 (fax)
William.titterington@us.army.mil

1.5 Regulatory Framework

In addressing environmental considerations, the 88th RSC is guided by relevant statutes (and their implementing regulations) and Executive Orders (EOs) that establish standards and provide guidance on environmental and natural resources management and planning. These include the Clean Air Act, Clean Water Act, Noise Control Act, Endangered Species Act, National Historic Preservation Act, Archaeological Resources Protection Act, Native American Graves Protection and Repatriation Act, American Indian Religious Freedom Act, Resource Conservation and Recovery Act, Comprehensive

Environmental Response, Compensation and Liability Act, and Toxic Substance Control Act. EOs bearing on the Proposed Action include EO 11988 (*Floodplain Management*), EO 11990 (*Protection of Wetlands*), EO 12088 (*Federal Compliance with Pollution Control Standards*), EO 12580 (*Superfund Implementation*), EO 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*), EO 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*), , EO 13175 (*Consultation and Coordination with Indian Tribal Governments*), EO 13186 (*Responsibilities of Federal Agencies to Protect Migratory Birds*), and EO 13423 (*Strengthening Federal Environmental, Energy, and Transportation Management*). These authorities are addressed in various sections throughout this EA when relevant to particular environmental resources and conditions. The full text of the laws, regulations, and EOs is available on the Defense Environmental Network & Information Exchange web site at <https://www.denix.osd.mil>.

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 Introduction

This section describes the Army's preferred alternative for carrying out the BRAC Commission's recommendations. The BRAC Commission made the following recommendation concerning Kirksville, MO:

“Close the Greentop United States Army Reserve Center located in Greentop, MO, and relocate units to a new United States Army Reserve Center in Kirksville, MO, if the Army is able to acquire suitable land for the construction of the facilities.”

2.2 Proposed Action

To support the BRAC recommendations, the Proposed Action includes construction of a new 100-member USARC, unheated storage building, and organizational parking at a new site (with a minimum of 8 net buildable acres) in Kirksville, MO. The new USARC would provide administrative, educational, assembly, library, learning center, vault, and physical fitness areas for two Army Reserve units. The Proposed Action would also provide parking space for all privately-owned vehicles. The Army estimates that construction would begin in March 2010, and would be completed March 2011.

The proposed USARC would consist of permanent construction with heating, ventilation, and air conditioning (HVAC) systems, plumbing, mechanical systems, security systems, and electrical systems. The unheated storage building would also be of permanent construction.

The USARC complex would consist of the following (Department of Army 2008):

- 21,175 square foot USARC
- 458 square foot unheated storage
- 24,948 square foot organizational parking

Supporting actions would include land clearing, paving, fencing, general site improvements, and extension of utilities to serve the project. Accessibility for the disabled would be provided. Anti-terrorism/Force protection (AT/FP) measures would be incorporated into the design including maximum standoff distance from roads, parking areas, and vehicle unloading areas. Berms, heavy landscaping, and bollards would be used to prevent access when standoff distances cannot be maintained. Sustainable Design and Development (SDD) and Energy Policy Act of 2005 (EPA05) features would be provided.

Personnel to use the facility consists of 5 full time users, and up to 90 reservists for a drill weekend. Adequate parking spaces for privately-owned vehicles (POVs) would be provided.

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Activities at the USARC would be training-related, with no weapons firing. On training weekends, reservists would either commute to the USARC or stay in local hotels. Petroleum, oil, and lubricants use and waste would be minimal, and maintenance activities would be performed off-site. No vehicle fueling operations would be conducted on the site.

A conceptual floor plan for the proposed complex is included in Appendix A.

3.0 ALTERNATIVES

3.1 Introduction

To support and sustain its current and future mission, the 88th RSC has programmed the construction of new facilities, including structures, roads, and parking lots. Details for screening criteria used for preliminary assessment of each potential site are described below in Section 3.2. Section 3.3 discusses the alternatives carried forward in this EA and Section 3.4 discusses the other alternatives considered, but eliminated from further discussion in the EA. Section 3.5 presents a summary comparison of the alternatives evaluated in the EA.

3.2 Screening Criteria

Potential sites for the new USARC were evaluated in the Available Site Identification and Validation Report (ASIV; U.S. Army Corps of Engineers (USACE) Kansas City District 2008) and screened for inclusion in this EA. Screening criteria consists of operational constraints, safety constraints, geographic constraints, environmental and topographic constraints, and existing facility and mission constraints. The following describes the constraints considered in the evaluation process.

Safety Constraints – include engineering and operational safety constraints, such as explosive arcs and Anti-terrorism/Force Protection (AT/FP) guidance

Geographic and Institutional Constraints – include availability of sufficient land area (minimum of 8 acres); access and security availability; proximity to utilities and/or operationally related facilities; municipal zoning and/or land use constraints

Environmental and Topographic Constraints – include clean, uncontaminated site (no underground storage tanks); flat to gently rolling, no landfills, cliffs, extensive drainage ditches, wetlands, or ravines

Existing Facility and Mission Constraints – include interference with existing missions and training, infrastructure demand, or incompatibility with language in BRAC legislation

Operational Constraints – include the cost of relocating existing facilities and construction of new infrastructure

A total of twelve alternatives were screened for inclusion in the ASIV, as described below.

3.3 Alternatives Evaluated in the EA

Two Action Alternatives (Preferred Alternative and Alternative 2) and the No Action Alternative are carried forward for evaluation in this EA.

3.3.1 Preferred Alternative

The Preferred Alternative Site was identified as Site 1 in the ASIV (USACE Kansas City District 2008). The site is located at the northwest corner of Industrial Road and Millen Avenue (Rye Creek Road) in Kirksville, MO (see Figure 3-1). The site consists of approximately 6.51 acres of government-owned land (under control of the Army Reserve) as well as approximately 4.6 acres of adjacent privately-owned land. The topography on the site is relatively level (+/- 980 Mean Sea Level (MSL)) and slopes gently toward the north. A portion of the government-owned parcel on the corner of Millen (Rye Creek) and Industrial Road is fenced. The site is undeveloped farmland that is currently being used to pasture cows, miniature donkeys, and a llama. Within the fenced area there are street light style lamps, a small concrete pad with wooden sides, a water meter, and one pad mounted transformer. Representative photographs of the site are included in Appendix B.

The area near the site consists of light industrial and agricultural land. Additional agricultural and undeveloped land is located further to the north, west and south. Kirksville Industrial Park is located east of Industrial Road.

The proposed site configuration is shown in Appendix C. Utilities are already located on the site, including:

- Gas: provided by Atmos Energy
- Electric: provided by Ameren
- Water and Sewer: provided by City of Kirksville

The Preferred Alternative site is zoned Light Industrial, and is outside the 100-year floodplain.

3.3.2 Alternative 2

Alternative 2 was identified as Site 6 in the ASIV (USACE Kansas City District 2008) (see Figure 3-2). The site is located 0.5-mile east of Highway 63 and 0.5-mile north of Highway 6 at the northwest corner of South Jameson and East La Harpe in Kirksville, MO. The site is approximately 18 acres (is sub-dividable), and outside of the 100-year floodplain. The land is vacant and unimproved, and the utilities are all available. The site is part of the City of Kirksville approved Jamison Planned Unit Development (PUD) and is zoned Institutional.

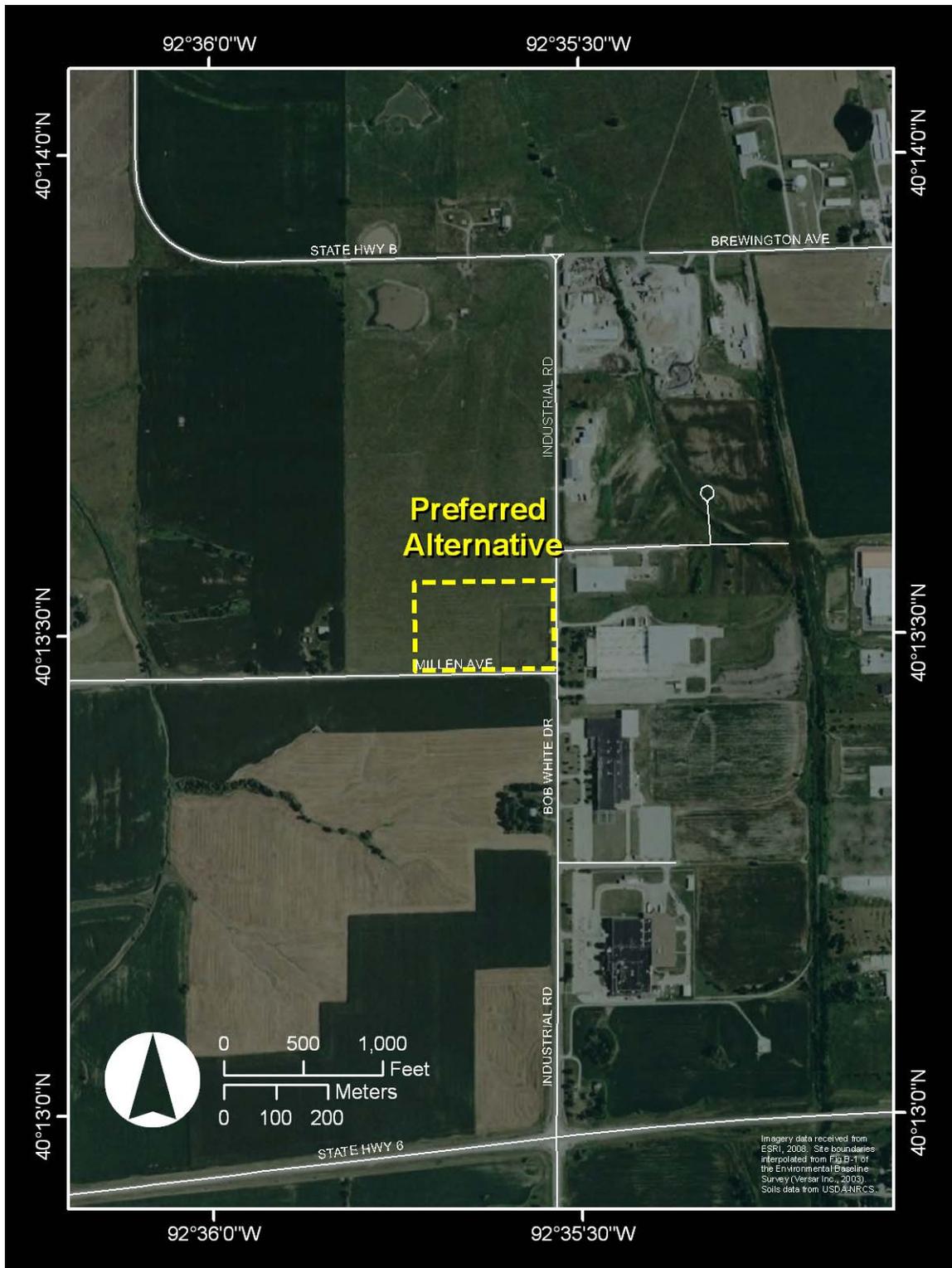


Figure 3-1. Preferred Alternative Location Map



3.3.3 No Action Alternative

The No Action Alternative is included as required by the CEQ regulations to identify the existing baseline conditions against which potential impacts are evaluated. The No Action Alternative must be described because it is the baseline condition or the current status of the environment.

Under the No Action Alternative, the proposed facilities would not be constructed to accommodate the BRAC actions as described in Section 2.0. The relocation of Army Reserve units would not be implemented. Under the No Action Alternative, the units would continue to operate and train in outdated facilities that are not properly configured to allow the most effective training to complete mission requirements and that do not offer enough acreage for expansion or to meet anti-terrorism/force protection guidelines.

3.4 Alternatives Considered and Not Carried Forward

Twelve sites (including the Preferred Alternative and Alternative 2) were considered by Site Survey Team (consisting of representatives from 88th RSC, Assistant Chief of Staff for Installation Management (ACSIM), USACE Kansas City, and the local Reserve Unit) for the BRAC action at Kirksville, MO.

Contending Sites

Three of these sites were recommended in the Site Approval Request (Department of the Army, April 2008). Two of these sites are carried forward in the EA (Preferred Alternative and Alternative 2), and the third site was eliminated from further consideration, as described below.

Site 2: North U.S. Highway 63 (Baltimore St.), Kirksville, MO. Site 2 is located along 330 feet of North Highway 63 and is approximately 30 acres. The site is fairly level, outside the 100-year floodplain, and zoned Commercial. Water, electric, and telephone service are located on the site. Sewer line could be run to site. According to the Site Approval Memorandum, this site does not meet the minimum 500 foot width (Department of the Army, April 2008) and was therefore eliminated from further consideration.

Non-contending Sites

Nine additional sites were considered by the Site Survey Team as part of the ASIV (USACE Kansas City District 2008) and were eliminated from further consideration in the EA because they did not meet the screening criteria, as described below.

Site 3: 4412 North U.S. Highway 63 (Baltimore St.), Kirksville, MO. Site 3 is located 3.5 miles from downtown Kirksville and is flat, unimproved, vacant, and outside of the 100-year floodplain. The site is zoned Commercial and utilities are located on the north side of the easement. The site is approximately 14.3 acres; however, the owner is unwilling to subdivide.

Site 4: 403 Shepherd Avenue, Kirksville, MO. Site 4 is located in the southwest portion of Kirksville and is approximately 30 acres. The site is 75% flat and 25% rolling hills and is outside of the 100-year floodplain. Ingress and egress to this property would be a problem. Additionally, there is residential property adjacent to the site, which may be a concern from the standpoint of public reaction.

Site 5: North Lincoln Street, Kirksville, MO. Site 5 is located 1/3 mile east of Highway 63 and 1/2 mile north of County Route P. The topography is rolling hills and the site is outside of the 100-year floodplain. The site is approximately 23.7 acres. The site is zoned Residential, and the owner is unwilling to subdivide.

Site 7: Jamison and Highway 6, Kirksville, MO. Site 7 is bound by Jamison on the east and Highway 6 on the south. The site is flat, outside of the 100-year floodplain, and is zoned Commercial. Water, electric, and telephone lines are available and sewer could be run to site. The site is approximately 18 acres. This site was eliminated from further consideration because it did not bring the same cost-savings to the government as the Preferred Alternative site (since a portion of the Preferred Alternative site is already government-owned).

Site 8: East State Highway 11, Kirksville, MO. Site 8 is located 2.5 mile from downtown Kirksville. The proposed U.S. 63 by-pass is 0.5 mile east of the property. The site is approximately 259 acres, is outside of the 100-year floodplain, and water, sewer, and natural gas are available. The site is zoned Commercial. This site was eliminated from further consideration because it did not bring the same cost-savings to the government as the Preferred Alternative site (since a portion of the Preferred Alternative site is already government-owned).

Site 9: 2806 North Industrial Road, Kirksville, MO. Site 9 is approximately 8-10 acres, flat, and is outside of the 100-year floodplain. All public utilities are available. The site is zoned Industrial. This site was eliminated from further consideration because it did not bring the same cost-savings to the government as the Preferred Alternative site (since a portion of the Preferred Alternative site is already government-owned).

Site 10: 1100-1300 West Shepherd Avenue, Kirksville, MO. Site 10 is located near the intersection of Highway H and Shepherd Avenue. The site is approximately 25 acres. The site is outside of the 100-year floodplain, and utilities are available nearby. The property is zoned Residential, and the owner is unwilling to subdivide.

Site 11: Jamison Road, Kirksville, MO. Site 11 is located near the intersection of Jamison Road and Patterson Road. The site is approximately 12-13 acres, flat, and outside of the 100-year floodplain. Utilities are available nearby. The property is zoned Residential, and the owner is unwilling to subdivide.

Site 12: South Jamison Road near the intersection of Hamilton, Kirksville, MO. Site 12 is flat and outside of the 100-year floodplain. Utilities are available nearby and the property is zoned Commercial. The site is approximately 13.5 acres; however, the owner is unwilling to subdivide. This site was eliminated from further consideration because it

did not bring the same cost-savings to the government as the Preferred Alternative site (since a portion of the Preferred Alternative site is already government-owned).

3.5 Summary of Comparison of Alternatives

Table 3-1 provides a summary comparison of the alternatives (Preferred Alternative, Alternative 2, and No Action Alternative) with respect to the resource areas discussed in this EA.

Table 3-1. Summary Comparison of Alternatives

Resources	Alternative 1 (Preferred Alternative)	Alternative 2	No-Action Alternative
Land Use	No impacts anticipated	No impacts anticipated	No impacts would occur
Aesthetics and Visual Resources	Minor impacts, short term adverse visual impacts from construction equipment and activities	Minor impacts, short term adverse visual impacts from construction equipment and activities	No impacts would occur
Air Quality	Minor, temporary, short-term impacts from air emissions from construction activity	Minor, temporary, short-term impacts from air emissions from construction activity	No impacts would occur
Noise	Minor, temporary, short-term noise impacts from construction activities. Noise in the area would increase slightly as a result of increased traffic from personnel entering the facility but these impacts are negligible.	Minor, temporary, short-term noise impacts from construction activities. Noise in the area would increase slightly as a result of increased traffic from personnel entering the facility but these impacts are negligible.	No impacts would occur
Geology and Soils	Potential for soil erosion during construction; minimized through use of Best Management Practices (BMPs)	Potential for soil erosion during construction; minimized through use of Best Management Practices (BMPs)	No impacts would occur
Water Resources	No impacts to surface water, floodplains. Minimal potential impacts to groundwater and stormwater; minimized through SWPPP and SPCC plans, and NPDES permit	No impacts to surface water, floodplains. Minimal potential impacts to groundwater and stormwater; minimized through SWPPP and SPCC plans, and NPDES permit	No impacts would occur
Biological Resources	Minor impacts to vegetation and wildlife from construction; no impacts to Threatened and Endangered Species; no impacts to wetlands	Minor impacts to vegetation and wildlife from construction; no impacts to Threatened and Endangered Species; no impacts to wetlands anticipated (but more detailed analysis would be required if selected)	No impacts would occur
Cultural Resources	No impacts anticipated	No impacts anticipated; a Phase I Cultural Resource survey would be required if selected	No impacts would occur

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Resources	Alternative 1 (Preferred Alternative)	Alternative 2	No-Action Alternative
Socioeconomic Resources	Short-term positive impacts on local economy during construction; no long-term impacts	Short-term positive impacts on local economy during construction; no long-term impacts	No impacts would occur
Transportation	Short-term, minor impacts during construction and duty weekends from increase in traffic	Short-term, minor impacts during construction and duty weekends from increase in traffic	No impacts would occur
Utilities	No impacts anticipated	No impacts anticipated	No impacts would occur
Hazardous and Toxic Substances	Minor, short-term impacts during construction	Minor, short-term impacts during construction. An ECP study would be required if selected	No impacts would occur

4.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

4.1 Introduction

This chapter describes the existing environmental and human resources that could potentially be affected by the Proposed Action and alternatives. The environment described in this chapter is the baseline for the consequences that are presented for each resource and each alternative. The region of influence (ROI) or area of potential effect (APE) for each resource category is the Preferred Alternative or Alternative 2 site and its surroundings, unless stated otherwise in the individual resource category discussion.

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

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

Under NEPA, a review of significant irreversible and irretrievable effects that result from development of the Proposed Action is required (40 CFR 1502.16). Irreversible commitments of resources are those resulting from impacts to resources so they cannot be completely restored to their original condition. Irretrievable commitments of resources are those that occur when a resource is removed or consumed and will therefore never be available to future generations for their use. For resources or subjects where irreversible or irretrievable effects would result, such effects are discussed with short and long-term impacts.

Significance criteria were developed for the affected resource categories, and for many resource categories, are necessarily qualitative in nature. Quantitative criteria can be established when there are specific numerical limits established by regulation or industry standard. These criteria are based on existing regulatory standards, scientific and environmental documentation, and/or professional judgment. Impacts are classified as significant or not significant based on the significance criteria. Impacts do not necessarily mean negative changes, and any detectable change is not, in and of itself, considered to be negative. In the following discussions, to highlight adverse impacts for the decision maker, the impacts are considered adverse unless identified as beneficial.

The affected environment and baseline conditions are described for each resource in general terms for the Preferred Alternative and Alternative 2 or the resource-specific ROI. The affected environment description for each resource is followed by the potential

impacts to the resource from Alternative 1 (the Preferred Alternative), Alternative 2, and the No Action Alternative.

4.2 Land Use

4.2.1 Affected Environment

This section describes existing land use conditions on and surrounding the Preferred Alternative and Alternative 2. It considers natural land uses and land uses that reflect human modification. Natural land use classifications include wildlife areas, forests, and other open or undeveloped areas. Human land uses include residential, commercial, industrial, utilities, agricultural, recreational, and other developed uses. Management plans, policies, ordinances, and regulations determine the types of uses that are allowable, or protect specially designated or environmentally sensitive uses.

The following sections discuss the regional geographic setting and location, project site land use, and current and future development. The ROI for land use is the land within and adjacent to the Preferred Alternative and Alternative 2 project area.

4.2.1.1 Regional Geographic Setting and Location

The Preferred Alternative property is located northwest of the intersection of Industrial Road and Millen Avenue (Rye Creek Road) in Kirksville within Adair County, Missouri. It is approximately 2 miles northwest of Kirksville's city center. The site consists of approximately 6.51 acres of government-owned land (under control of the Army Reserve) as well as approximately 4.6 acres of privately-owned land which are adjacent to the 6.51 acre government-owned land.

Alternative 2 is located 0.5 mile east of Highway 63 and 0.5 north of Highway 6 at the northwest corner of South Jameson and East La Harpe in Kirksville, MO. It is approximately 2 miles southeast of Kirksville's city center. The site consists of 18 acres of privately-owned land.

4.2.1.2 Preferred Alternative and Alternative 2 Land Use

The Preferred Alternative site is currently being used to pasture cows, miniature donkeys and llamas. A portion of the site was formerly used as a training area for the medical unit of the 89th Regional Readiness Command (RRC). The former training area is fenced and contains street light style lamps, a small concrete pad with a three sided wooden fence (former shower/latrine area), a water meter, and a pad-mounted transformer. The medical unit personnel used the site primarily for set-up, utilization and tear-down of medical unit tents and equipment. This property is currently zoned for Light Industrial use.

The property chosen as Alternative 2 is currently vacant grassland and is unimproved. This property is currently zoned for Institutional use. Land use cover maps are included as Figures 4-1 and 4-2

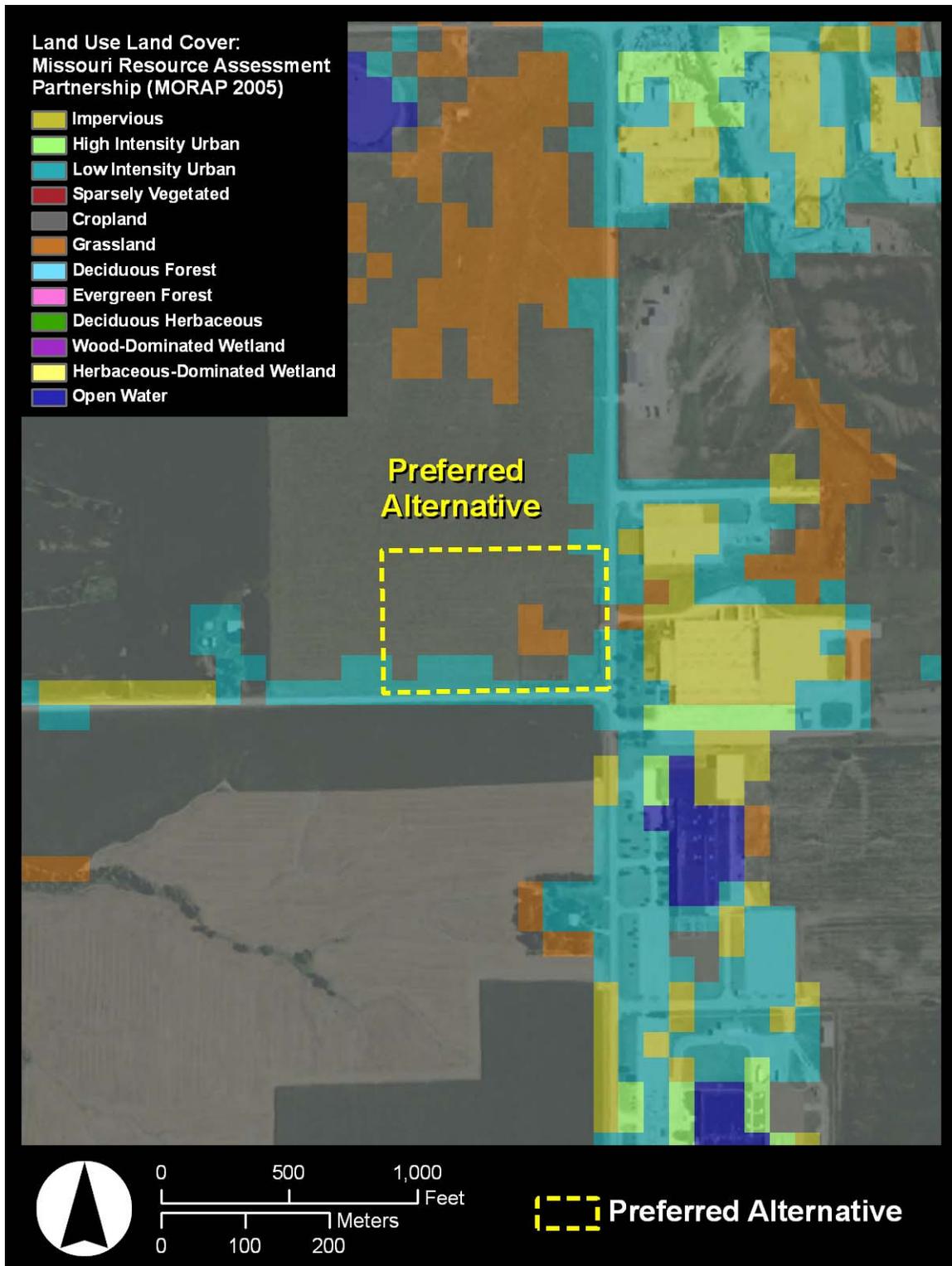


Figure 4-1. Land Use Cover Map

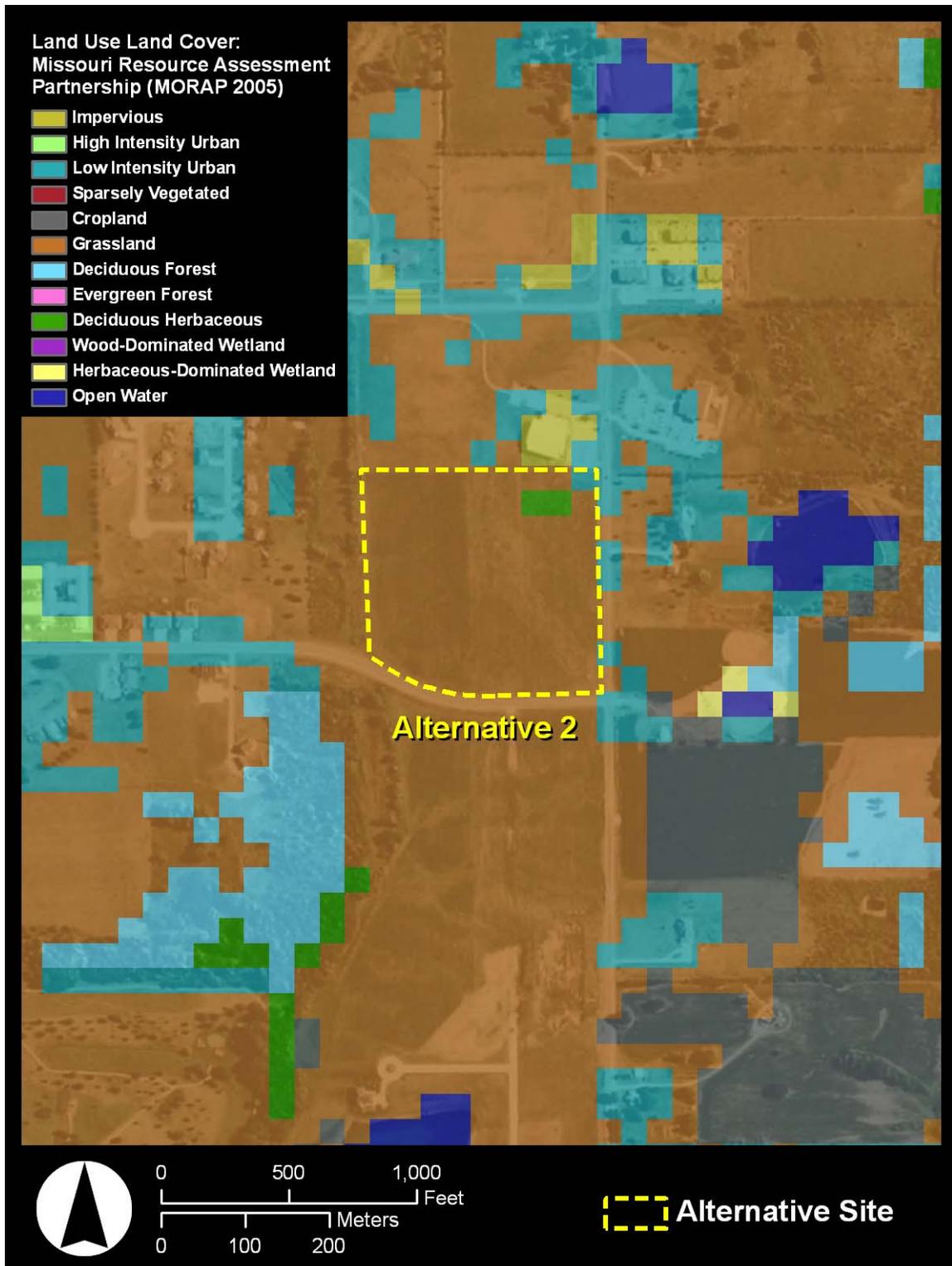


Figure 4-2. Land Use Cover Map for Alternative 2

4.2.1.3 Current and Future Development in the Region of Influence

The property surrounding the Preferred Alternative site is light industrial and agricultural. The property further to the north, south, and west of the site is undeveloped agricultural land. Kirksville Industrial Park is east of Industrial Road. There are currently no land use conflicts in the ROI. Other than the facilities proposed under the Proposed Action, no other development of the property has been planned. The area surrounding the site is zoned Light Industrial. According to the City of Kirksville, there is potential that some light industrial businesses will move into the area in the future, but there are no other developments planned at this time.

Alternative 2 is part of the City of Kirksville approved Jamison Planned Unit Development (PUD) and is zoned for Institutional including schools, churches, government, and medical. The site is in an area that is characterized as mostly grassland and mixed use urban. The Kirksville Public Schools are north one block and the Kirksville Country Club is to the southwest. According to the City of Kirksville, there are no specific future projects planned in the area.

4.2.2 Consequences

Considerations for impacts to land use include the land on and adjacent to the Preferred Alternative project area and Alternative 2, the physical features that influence current or proposed uses, pertinent land use plans and regulations, and land availability. Conformity with existing land use is of utmost importance.

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

- Conflict with applicable ordinances and/or permit requirements;
- Cause nonconformance with the current general plans and land use plans, or preclude adjacent or nearby properties from being used for existing activities; or
- Conflict with established uses of an area requiring mitigation.

4.2.2.1 Alternative 1 – Preferred Alternative

Overall, potential impacts to land use from the Preferred Alternative would not be significant. The Preferred Alternative would not present conflicts or nonconformance with current local or state land use or zoning designations. A portion of the Kirksville property was used as a training site for the 89th deployable medical unit. There would be no conflict with adjacent land uses from the realignment alternative since the project would not divide any communities, require any changes to land use or zoning maps, and would not interfere with the existing surrounding agricultural and light industrial land uses.

4.2.2.2 Alternative 2

Potential impacts to land use from Alternative 2 would not be significant. This alternative would not present conflicts or nonconformance with current local or state land use or

zoning designations. Because a PUD promotes a clustering of various land uses, an USARC on this site would not present a conflict with this designation.

4.2.2.3 No Action Alternative

Under the No Action Alternative, there would be no changes in land use at the Preferred Alternative or Alternative 2.

4.3 Aesthetics and Visual Resources

4.3.1 Affected Environment

This section describes the aesthetic and visual resource conditions at the Preferred Alternative and Alternative 2. The visual resources of the alternatives include natural and manmade physical features that provide the landscape its character and value as an environmental resource. Landscape features that form a viewer's overall impression about an area include landform, vegetation, water, color, adjacent scenery, scarcity, and constructed modifications to the natural setting. The ROI for aesthetics includes the areas visible from the Preferred Alternative and Alternative 2 construction locations and areas from which the Proposed Action construction locations are visible.

Both alternative sites and the surrounding area are characterized by the relatively gentle topography of the glaciated plains. The Preferred Alternative is pastureland that consists of mostly range grasses and legumes with scattered small trees along the eastern perimeter of the fenced area. The southeastern portion of the site is fenced and was formerly used as a training area for the medical unit of the 89th RRC. This portion of the site contains street light style lamps, a concrete pad with a three sided wooden fence (former latrine area), a water meter, one pad-mounted transformer and three electrical main switches. The site can be accessed by a concrete paved driveway west of Industrial Road and east of the access gate. Views from the Preferred Alternative site are dominated by a corporate industrial park to the east, and by undeveloped agricultural land to the north, west, and south. Based on the 2008 aerial photograph, views from Alternative 2 are of a mixture of undeveloped agricultural land, institutional buildings, commercial and/or industrial buildings with some residences.

4.3.2 Consequences

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

4.3.2.1 Alternative 1 – Preferred Alternative

Overall, potential impacts to aesthetics and visual resources from the Preferred Alternative would not be significant. The Preferred Alternative would cause short-term negative visual impacts on the Kirksville USARC property resulting from ground

disturbance associated with construction of the proposed facilities. However, the reclamation of disturbed areas would remove these visual impacts.

Construction of the Preferred Alternative would result in some long-term beneficial visual impacts to the site, as the chain-link and barbed-wire fencing as well as dilapidated structure (former latrine area) would be replaced by a modern, and well-landscaped complex of buildings. Additionally, force protection measures would be incorporated as practicable into the design of the facility, such that aesthetically-unappealing bollards would be unnecessary. The Preferred Alternative would also result in long-term adverse visual impacts, because approximately 1 acre of land currently supporting pasture grasses and legumes would be disturbed for construction and paving for the organizational parking area. However, these impacts would not be significant as they would be consistent with the aesthetics of surrounding land uses in the light industrial park. Operations at the USARC would result in minor adverse aesthetic impacts, including increased traffic and nighttime light, resulting from increased use during weekends when the facilities are in use by tenant organizations.

4.3.2.2 Alternative 2

Impacts anticipated to occur from Alternative 2 would not be significant as they would be consistent with the aesthetics of surrounding land uses. Operations at the USARC would result in minor adverse aesthetic impacts, including increased traffic and nighttime light, resulting from increased use during weekends when the facilities are in use by tenant organizations.

4.3.2.3 No Action Alternative

Under the No Action Alternative, there would be no effects on the viewshed or on the aesthetic values of the region.

4.4 Air Quality

4.4.1 Affected Environment

This section describes the existing air quality conditions at and surrounding the Preferred Alternative and Alternative 2. For analysis purposes, the ROI for air quality is defined as Adair County, Missouri, where the sites are located. The alternative sites are located in U.S. Environmental Protection Agency (EPA) Region 7, and are in an attainment area. Ambient air quality conditions are discussed first, followed by air pollution emissions at the site and regional air pollution emissions.

4.4.1.1 Ambient Air Quality Conditions

The ambient air quality in an area can be characterized in terms of whether it complies with the primary and secondary National Ambient Air Quality Standards (NAAQS). The Clean Air Act (42 U.S.C. 7401 et seq.) requires the EPA to set NAAQS for pollutants considered harmful to public health and the environment. NAAQS have been established for seven criteria pollutants: carbon monoxide (CO); lead (Pb); nitrogen dioxide (NO₂); ozone (O₃); particulate matter with an aerodynamic size less than or equal to 10 microns

(PM10); particulate matter with an aerodynamic size less than or equal to 2.5 microns (PM2.5); and sulfur dioxide (SO2). These pollutants are believed to be detrimental to public health and the environment, and are known to cause property damage. Table 4-1 lists the NAAQS values for each criteria pollutant. Missouri has adopted all of the NAAQS standards as well as several standards of its own, which are listed in Table 4-2. Missouri Department of Natural Resources (MDNR) is responsible for ensuring that the air quality within Missouri meets or is better than the levels required by Federal and State standards. MDNR air quality network consists of 100 air monitoring instruments at 33 sites throughout the State that monitor the air for O3, NO2, CO, SO2, Pb, hydrogen sulfide (H2S), PM10, and PM2.5. There are no monitoring sites within the ROI.

Missouri is one of 28 eastern U.S. states under the Clean Air Interstate Rule (CAIR), a program to permanently cap emissions of SO2 and nitrogen oxides (NOx). CAIR will help MO meet and maintain NAAQS for ground-level ozone and fine particle pollution (SO2 and NOx contribute to the formation of fine particles (PM) and NOx contributes to the formation of ground-level ozone).

Table 4-1. National Ambient Air Quality Standards.

Pollutant	Standard Value
Carbon Monoxide (CO)	
8-hour average	9 ppm
1-hour average	35 ppm
Lead (Pb)	
Quarterly Average	1.5 µg/m3
Nitrogen Dioxide (NO2)	
Annual arithmetic mean	0.053 ppm
Ozone (O3)	
8-hour average	0.075 ppm
Particulate matter less than 10 microns (PM10)	
Annual Mean	50 µg/m3
24-hour average	150 µg/m3
Particulate matter less than 2.5 microns (PM2.5)	
Annual arithmetic mean	15.0 µg/m3
24-hour average	35 µg/m3
Sulfur dioxide (SO2)	
Annual arithmetic mean	0.03 ppm
24-hour average	0.14 ppm

Source: 40 CFR 50.4 through 50.13
 µg/m³ micrograms per cubic meter
 ppm parts per million

Table 4-2. Other Missouri Ambient Air Quality Standards.

Pollutant	Standard Value
Particulate matter less than 2.5 microns (PM _{2.5})	
24-hour average	65 µg/m³
Hydrogen Sulfide (H ₂ S)	
1/2-hour average	0.05 ppm

Source: 10 CSR 10-6.010 (<http://epa.gov/region7/programs/artd/air/rules/missouri/chap6.htm>)

µg/m³ micrograms per cubic meter

ppm parts per million

4.4.1.2 Air Emission Sources at Kirksville Site

The Kirksville USARC site has no stationary pollutant emission sources.

4.4.1.3 Regional Air Pollution Emissions Summary

General air quality monitoring is conducted in areas of high population density and near major sources of air pollutant emissions. Rural areas are typically not considered in such monitoring. Regions that are in compliance with the NAAQS are designated as attainment areas. Areas for which no monitoring data is available are designated as unclassified and are by default considered to be in attainment of the NAAQS. In areas where the applicable NAAQS are not being met, a non-attainment status is designated.

The Kirksville USARC sites are located in EPA Region 7. In 2008, areas surrounding the city of St. Louis were cited as non-attainment areas for ozone, lead, and PM_{2.5} (EPA 2008). These pollutants reached into the counties of Franklin, Jefferson, St. Louis, and St. Charles. There are currently no other non-attainment areas within the State (EPA 2008). The alternative sites are in an attainment area.

To regulate the emission levels resulting from a project, federal actions located in non-attainment areas are required to demonstrate compliance with the general conformity guidelines established in 40 CFR Part 93, Determining Conformity of Federal Actions to State or Federal Implementation Plans (the Rule). Section 93.153 of the Rule sets the applicability requirements for projects subject to the Rule through the establishment of de minimis levels for annual criteria pollutant emissions. These de minimis levels are set according to criteria pollutant nonattainment area designations. Projects below the de minimis levels are not subject to the Rule. Those at or above the levels are required to perform a conformity analysis as established in the Rule. The de minimis levels apply to direct and indirect sources of emissions that can occur during the construction and operational phases of the action.

In addition to evaluation of air emissions against *de minimis* levels, emissions are also evaluated for regional significance. A federal action that does not exceed the threshold emission rates of criteria pollutants may still be subject to a general conformity determination if the direct and indirect emissions from the action exceed 10 percent of the total emissions inventory for a particular criteria pollutant in a non-attainment or maintenance area. If the emissions exceed this 10 percent threshold, the federal action is

considered to be a “regionally significant” activity, and thus, the general conformity rules apply.

4.4.2 Consequences

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

- Increase ambient air pollution above any NAAQS;
- Contribute to an existing violation of any NAAQS;
- Interfere with or delay timely attainment of NAAQS; or
- Impair visibility within any federally mandated Prevention of Significant Deterioration (PSD) Class I area.

4.4.2.1 Alternative 1 – Preferred Alternative

Overall, potential impacts to air quality from the Preferred Alternative would not be significant. Short-term air quality impacts from the Preferred Alternative would occur from construction and demolition activities associated with the movement of heavy equipment. Construction activities would be temporary and would occur in a localized area. Construction activities would generate particulate matter, vehicle emissions, and increased wind-borne dust (i.e. fugitive dust). However, erosion control measures (ECMs) would be implemented to prevent generation of fugitive dust. Within the construction sites, appropriate ECMs would be identified that would provide optimum soil suppression. ECMs typically utilize (but are not limited to) either wind speed reduction or water suppression strategies (or both) during demolition, construction, and renovation by fencing or wetting areas of soil disturbance and debris. In addition to identifying the type of surface treatment, an alternative ECM would be identified in case the original is found to be ineffective.

Vehicular as well as demolition and construction equipment exhaust would be a source of pollutant emissions, but would have a negligible impact on air quality. The emissions from these construction activities and workers traveling to and from the site would be minor compared to the total existing vehicular emissions in the area. Impacts would not be significant.

Long-term impacts associated with operation of the proposed USARC are not likely to occur. No fueling facilities, underground storage tanks (USTs), or paint booths would be required for the USARC. The vehicles associated with the use of these facilities by reservists would not be expected to result in significant impacts to air quality because the existing two reserve units will be relocated and there will be no net gain of personnel in the airshed, the proposed users would be relocating from facilities within the same airshed.

A permit application for emissions from the new facility would be completed if necessary, and all applicable rules and regulations would be followed. In the unlikely event that emissions from the proposed facility would exceed *de minimis* levels, the 88th RSC would perform a conformity analysis in accordance with 40 CFR Part 93, Determining Conformity of Federal Actions to State or Federal Implementation Plans.

4.4.2.2 Alternative 2

Impacts anticipated to occur from Alternative 2 would be similar to those discussed under the Preferred Alternative.

4.4.2.3 No Action Alternative

Implementation of the No Action Alternative would not change current conditions and therefore would not affect the current air quality conditions in the region.

4.5 Noise

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

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

4.5.1 Affected Environment

Sources of noise at the Preferred Alternative are negligible, and are largely limited to minor traffic noise from personnel entering and exiting the area, and occasional farm equipment used to maintain the pasture. On-site sources of noise are negligible in comparison to off-site sources, which are dominated by traffic along Industrial Road and the actual operation of facilities within the Kirksville Industrial Park, across the road to the east.

Sources of noise at Alternative 2 are negligible and are largely limited to minor traffic noise from personnel entering and exiting the area, and occasional equipment used to maintain the land (i.e. lawn mower). Off-site sources of noise are dominated by traffic along Jamison Street and LaHarpe Street.

4.5.2 Consequences

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

- Annoyance – noise can impact the performance of various every day activities such as communication and watching television in residential areas.
- Hearing loss – the EPA recommends limiting daily equivalent energy to 70 dBA, approximately 75 dBA day-night average sound level, to protect against hearing impairment over a period of 40 years (day-night average sound level is an average sound level generated by all operations during an average or busy 24-hour period, with sound levels of nighttime noise events emphasized by adding a 10-dB weighting).
- Sleep interference, which is of great concern in residential areas.

The standard threshold for determining at what point noise impacts become a nuisance is 65 dBA day-night average sound level.

4.5.2.1 Alternative 1 – Preferred Alternative

Negligible adverse, but temporary and short-duration noise impacts would occur under the Preferred Alternative during construction activities. These impacts could be mitigated by confining construction activities to normal working hours and employing noise-controlled construction equipment to the extent possible. Additionally, the arrival and staging of heavy equipment and materials would be scheduled to occur during normal work hours to the greatest extent possible to avoid disturbing personnel in the surrounding communities.

After construction, noise from the day-to-day operations of the new USARC and associated facilities are not expected to increase significantly. Upon completion of construction, noise levels would be expected to return to normal, ambient levels for the area. Noise levels would not be significant compared to the daily operations of the industrial park and traffic on Industrial Road. The maximum number of individuals reporting on any given weekend is expected to be approximately 90 and would only contribute negligible amounts of noise to the current environment. The estimated 5 fulltime personnel commuting to the site daily would also only contribute negligible amounts of noise to the current environment.

4.5.2.2 Alternative 2

Impacts anticipated to occur from Alternative 2 would be similar to those discussed under the Preferred Alternative, however there are more residential receptors surrounding this alternative site. The slight increase in noise from the day-to-day operations of the new USARC may make this site less preferable, although this impact is not considered to be significant.

4.5.2.3 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to noise levels on or surrounding the Preferred Alternative or Alternative 2 site.

4.6 Geology and Soils

4.6.1 Affected Environment

This section describes the geology and soil conditions at the Kirksville USARC Preferred Alternative site and Alternative 2 site. Geologic and topographic conditions are discussed first, followed by soils, and prime farmland. The ROI for geology and soils is the land within the Proposed Action project area.

4.6.1.1 Geologic and Topographic Conditions

The land on the Preferred Alternative site is fairly level and slopes gently toward the north. The elevation of the site is approximately +/- 980 feet above MSL. The land on Alternative 2 is also fairly level and slopes gently to the southwest (see Figure 4-3). The underlying geology in these areas consists of the Cherokee and Marmaton Groups of the Pennsylvanian Formation which contain layers of sandstone, limestone, shale and coal. The land is located in the Grand River Section of Missouri's Glaciated Plains. The last Missouri glacier occurred approximately 400,000 years ago. The glaciers leveled the landscape and deposited silts, sands, gravels, and boulders which were sometimes ground into a fine flour. This fine flour was picked up by wind and redeposited over the landscape as a substance called loess. Thick layers of loess accumulated in certain areas (Missouri Department of Conservation (MDC) 2008a). According to the U.S. Department of Agriculture (USDA) official soil series descriptions, the soils in the project area formed in loess from glacial till.

4.6.1.2 Soils

The gently sloping land occupied by the Preferred Alternative is covered by soils represented by three mapping units (Figure 4-4). The soils mapped on the project area include Putnam silt loam, 0 to 1 percent slopes (50012); Adco silt loam, 1 to 3 percent slopes (50013); and Leonard silty clay loam, 2 to 6 percent slopes, eroded (60270). Putnam series soils consist of very deep, poorly drained soils formed in loess and loamy sediments derived from till. Adco series soils are characterized as very deep, somewhat poorly drained soils on uplands and high stream terraces. The Leonard series soils consist of very deep, poorly drained, hydric, slowly permeable soils formed in loess and a paleosol from glacial till. These soils are characterized as having moderate to slight susceptibility to wind erosion (NRCS 2008).

Soils mapped on Alternative 2 include Adco silt loam, 1 to 3 percent slopes (50013); Leonard silty clay loam, 2 to 6 percent slopes, eroded (60270); Armstrong clay loam, 9 to 14 percent slopes, eroded; and Armstrong loam, 5 to 9 percent slopes, eroded (50001) (Figure 4-5). Adco and Leonard series soils are described above and Armstrong series soils consist of very deep, somewhat poorly drained soils formed in 25 to 50 centimeters of sediments or loess and in the underlying paleosol weathered from till. These soils are on summits of interfluves and side slopes on till plains (NRCS 2008).

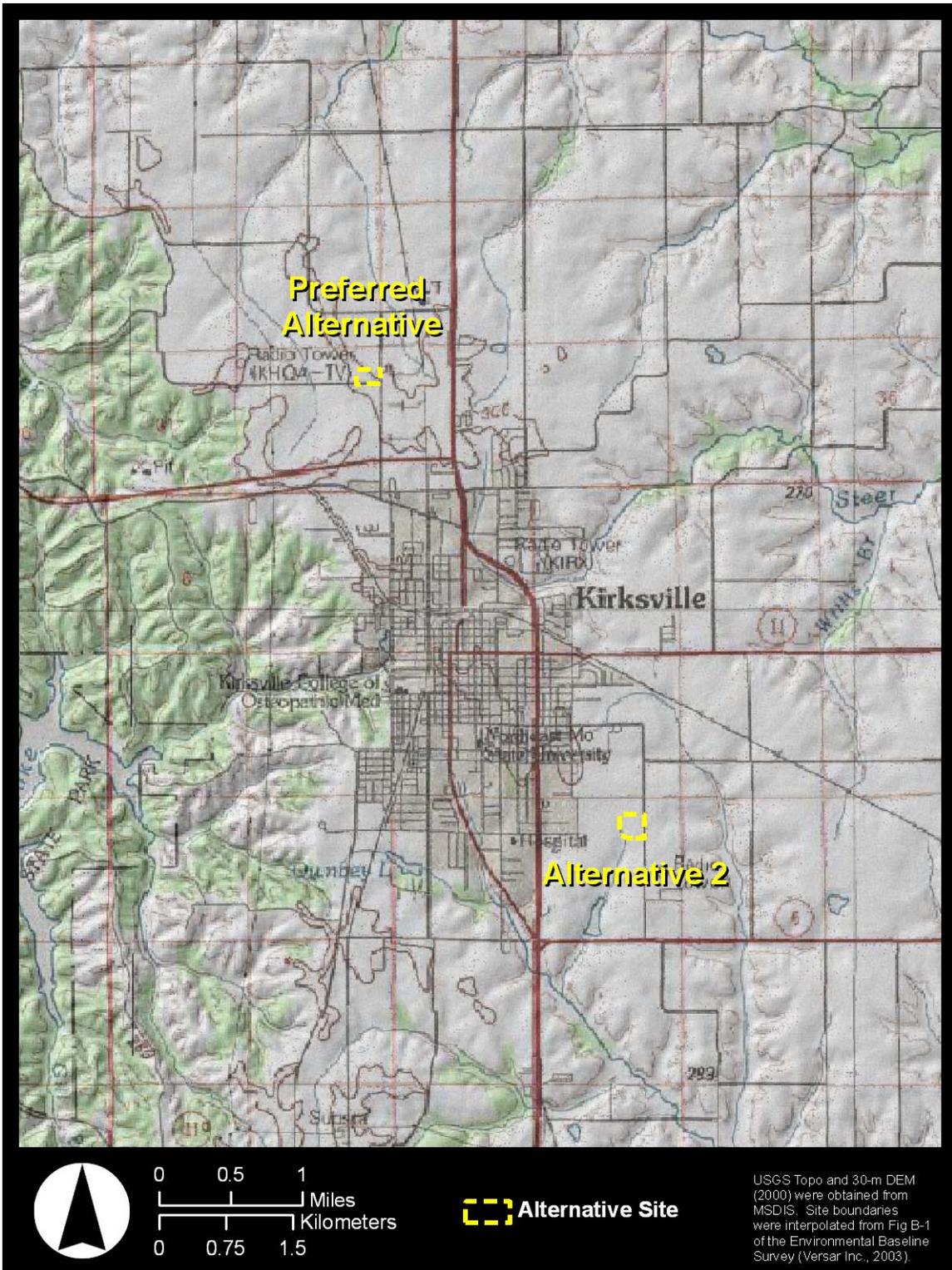


Figure 4-3. USGS Topographic Map of Preferred Alternative and Alternative 2

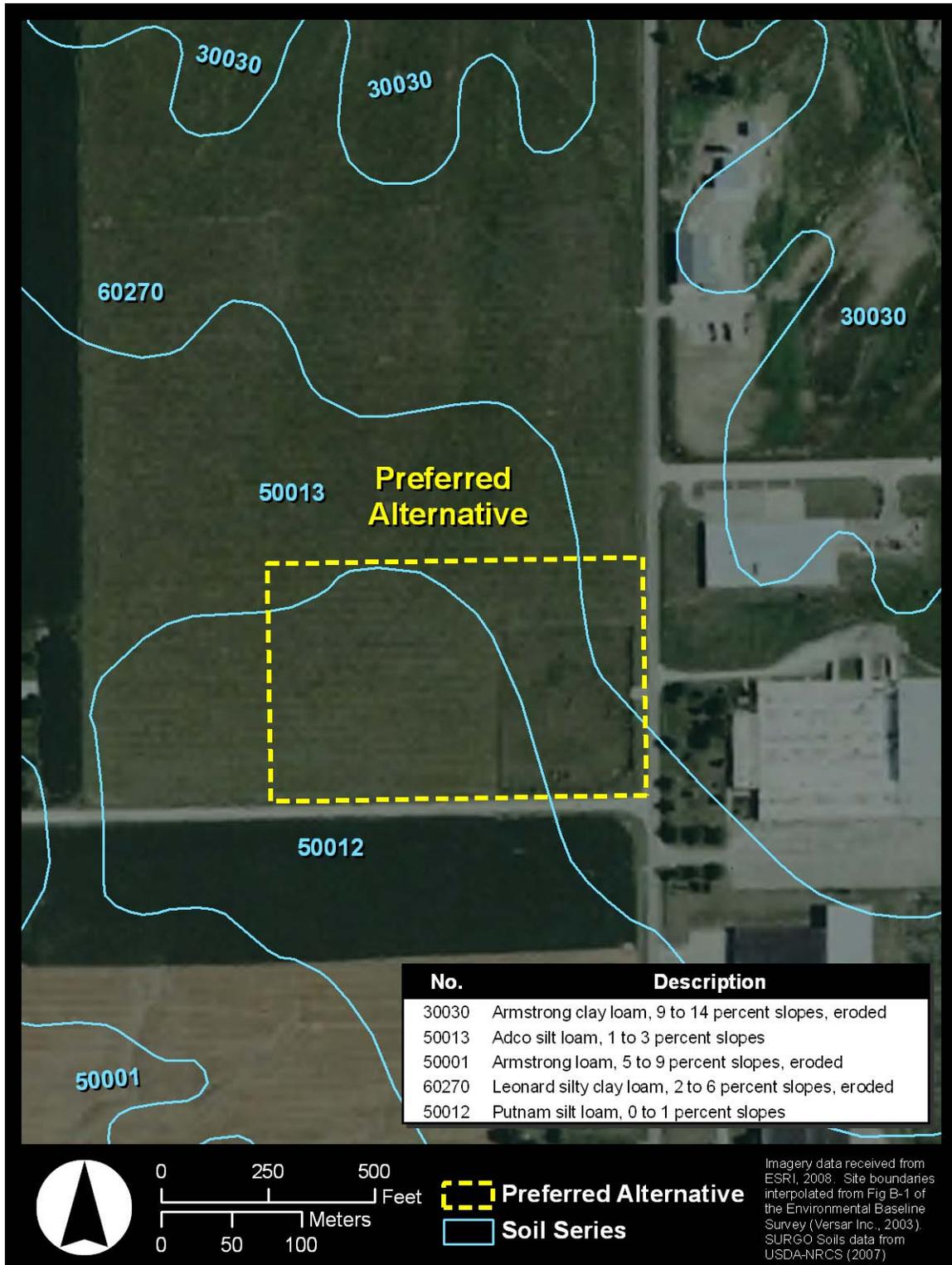


Figure 4-4. Mapped Soils of the Preferred Alternative

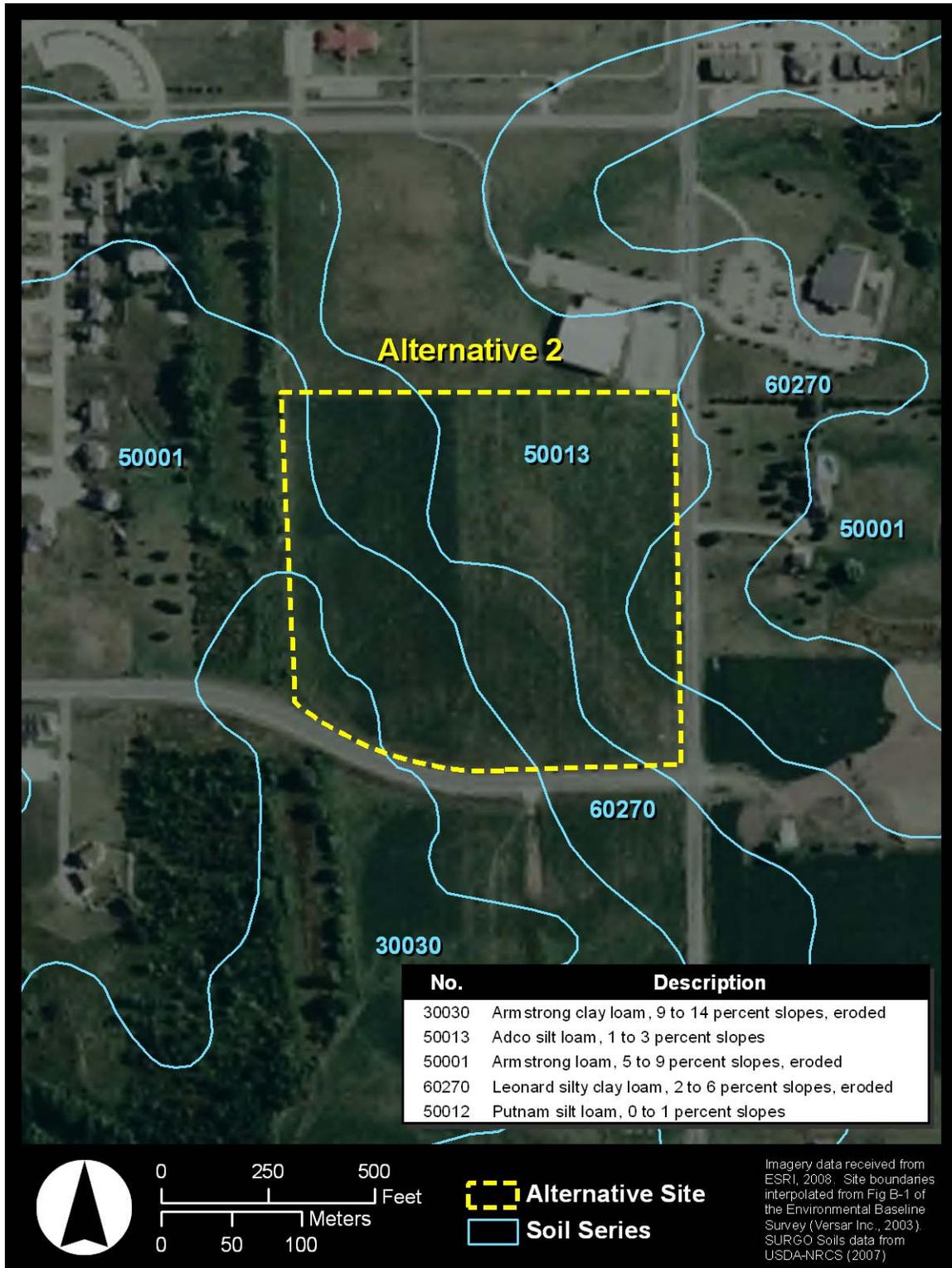


Figure 4-5. Mapped Soils of Alternative 2

4.6.1.3 Prime Farmland

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses. Prime farmland is protected by the Farmland Protection Policy Act (FPPA); however, urban lands and lands that are used for national defense purposes are exempt (7 CFR 658.3(b)) from the provisions of the FPPA (7 CFR Parts 657 and 658). Adco silt loam soils are considered Prime Farmland soils. Putnam silt loam and Leonard silty clay loam soils are rated as “Prime Farmland if drained”. Armstrong series soils are rated as “Farmland of statewide importance”.

4.6.2 Consequences

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

- Expose people or structures to major geologic hazards;
- Cause substantial erosion or siltation;
- Cause substantial land sliding; or
- Cause substantial damage to project structures/facilities.

4.6.2.1 Alternative 1 – Preferred Alternative

Overall, potential impacts to geology and soils from the Preferred Alternative would not be significant. The proposed facilities would reduce water infiltration by capping the subsoil with impervious surfaces. The Preferred Alternative would result in the long-term addition of approximately 1 acre of impervious surfaces to the Kirksville property.

Construction of a new USARC and parking facilities would disturb existing ground cover and increase the potential for soil erosion during the site preparation and construction phases. Irreversible commitments of resources would include a minimal amount of soil loss through either wind or water erosion during construction activities. BMPs for erosion control, topsoil management, and revegetation would be required and stated in the construction contract, and would reduce the potential effects to insignificant levels. Erosion control during construction activities would be undertaken with the use of hay bales and silt fencing, as appropriate, to prevent the movement of soils into drainage ditches or low-lying areas, and could also include scheduling construction activities for periods of lowest rainfall. Once the facilities are operational and new vegetation is in place, additional erosion of topsoil would be minimal and would be limited or mitigated through adherence to a storm water management plan.

The portion of the property that is privately owned is zoned Light Industrial and the other portion of the property is already owned by the Army Reserve (former training area for the 89th RRC medical unit). Lands already in use for national defense purposes are considered urbanized, and therefore are exempted under that provision. Due to the current designation of these properties, the proposed action is exempt from the FPPA. A courtesy letter was mailed to the local NRCS office notifying them that approximately 1-

acre of prime farmland soils will be capped with impervious surfaces and thus removed from farmland capabilities (Appendix D).

4.6.2.2 Alternative 2

Impacts anticipated to occur from Alternative 2 would be similar to those discussed under the Preferred Alternative. This site is also exempt from the FPPA because it is part of the Institutional PUD.

4.6.2.3 No Action Alternative

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

4.7 Water Resources

4.7.1 Affected Environment

This section describes water resources on the alternative Kirksville USARC sites, including surface and groundwater resources. Surface water includes lakes, rivers, and streams and is important for a variety of reasons, including economic, ecological, recreational, and human health. Groundwater comprises the subsurface hydrogeologic resources of the property's physical environment. This section also discusses floodplains. Wetlands are discussed in Section 4.8.1.4. The ROI for water resources is the Preferred Alternative and Alternative 2 as well as areas downstream from these sites.

4.7.1.1 Surface Water

The Kirksville Preferred Alternative USARC site is in the North Fork Salt watershed (Hydrologic Unit Code (HUC) 07110005). The major surface water feature in the vicinity of the Preferred Alternative USARC site is Floyd Creek which flows into the North Fork of the Salt River and eventually into the Mississippi River. There is a drainage swale to the north, there are roadside ditches along Industrial and Rye Creek Road, and there is a farm pond located approximately 2,000 feet to the northwest. There is no flowing surface water on the Preferred Alternative site.

The major surface water feature in the vicinity of Alternative 2 is an unnamed tributary to Kirksville Country Club Lake that is visible on the U.S. Geological Survey (USGS) topographic map near the southwest corner of the property boundary. The sources of the municipal water that would be used at both alternative sites are from two surface water impoundments, Forest Lake (located in Thousand Hills State Park), and Hazel Creek (located approximately 7 miles north of Kirksville) (City of Kirksville 2007). According to the City of Kirksville website, the water provided by Kirksville meets or exceeds water quality standards (http://www.kirksvillecity.com/2007_report_to_consumers_on_wate.htm).

4.7.1.2 Hydrogeology/Groundwater

The bedrock formations of the Northeast Missouri Groundwater Province generally yield small quantities of groundwater. Small quantities of marginal potable groundwater is locally available in some of the Mississippian strata where it is not overlain by Pennsylvanian strata. Water from the deeper bedrock aquifers is generally too highly mineralized for most uses.

4.7.1.3 Floodplains

The Preferred Alternative and Alternative 2 sites are located in a “Minimal Flood Hazard Area” and are both outside of the 100 year floodplain. (Federal Emergency Management Agency (FEMA) 2008) (see Figure 4-6).

4.7.2 Consequences

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

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

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

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

4.7.2.1 Alternative 1 – Preferred Alternative

Overall, potential impacts to water resources from the Preferred Alternative would not be significant. There would be no measurable reduction in surface water quality or availability. By capping the subsoil with impervious surfaces, the Preferred Alternative would reduce groundwater recharge locally over the long term by reducing the infiltration of precipitation (see Section 4.6.2.1). The Preferred Alternative would result in the addition of approximately 1 acre of impervious surfaces. This reduction of groundwater recharge would not have a significant impact on regional groundwater supplies.

Construction of the proposed USARC would disturb existing ground cover and increase the potential for soil erosion during the site preparation and construction phases. BMPs

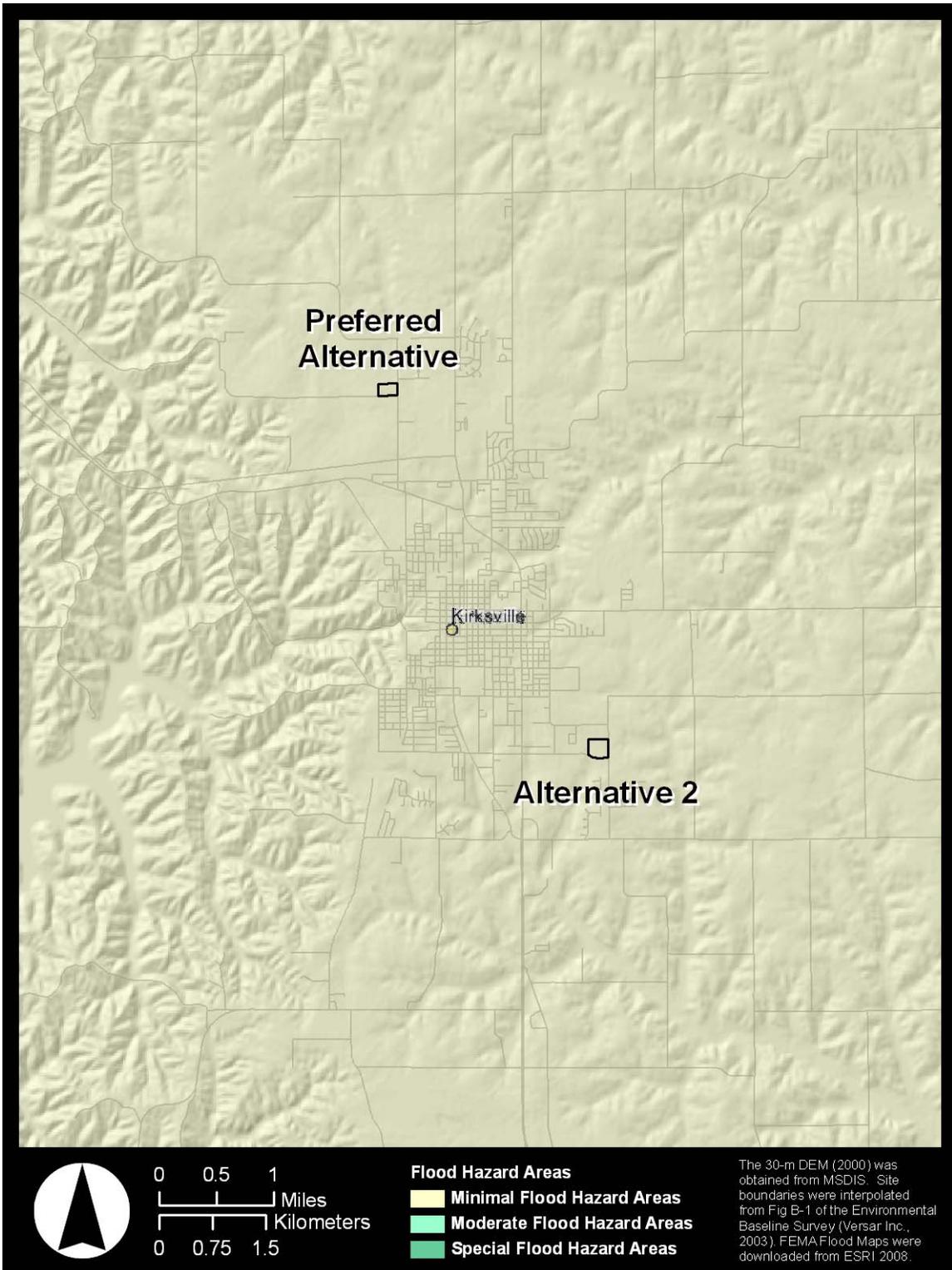


Figure 4-6. FEMA Flood Designation Map for Preferred Alternative and Alternative

for erosion control, topsoil management, and revegetation would be required and stated in the construction contract, and therefore potential effects would not be significant. Erosion control during construction activities would be undertaken with the use of hay bales and silt fencing, as appropriate, to prevent the movement of soils into drainage ditches or low-lying areas, and could also include scheduling construction activities for periods of lowest rainfall.

If potential pollutants are exposed to rainfall and runoff, a Storm Water Pollution Prevention Plan (SWPPP) would be required. The SWPPP would be modified, as needed, to address site specific requirements and monitoring. Point discharges of wastewater are prohibited by existing National Pollutant Discharge Elimination System (NPDES) requirements under the Clean Water Act (CWA). Potential spills of petroleum, oils, and lubricants at the proposed site would have minor short term and long term adverse impacts on surface and groundwater, if uncontained. Spills would be mitigated using procedures identified in facility procedures. If above-ground storage capacities of petroleum, oils, and lubricants (POLs) exceeded Federal limits, a Spill Prevention Control and Countermeasures (SPCC) plan would be created and implemented to reduce potential impacts to surface water or groundwater.

Because the Proposed Action does not entail construction within the 100-year floodplain, there would be no impacts to floodplains from the Proposed Action, and there are no impacts to Proposed Action structures caused by building in a floodplain.

4.7.2.2 Alternative 2

Impacts anticipated to occur from Alternative 2 would be similar to those discussed under the Preferred Alternative.

4.7.2.3 No Action Alternative

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

4.8 Biological Resources

4.8.1 Affected Environment

This section describes biological resources at the proposed Kirksville USARC sites. It focuses on plant and animal species or habitat types that are typical or are an important element of the ecosystem, are of special category importance (of special interest due to societal concerns), or are protected under state or federal law or statute regulatory requirement. Vegetation is discussed first, followed by wildlife, sensitive species, and wetlands. The ROI for biological resources is the land within the Preferred Alternative and Alternative 2 project area.

4.8.1.1 Vegetation

Vegetation on the Preferred Alternative site consists mostly of a mixture of pasture grasses and legumes with a few small trees along the perimeter of the fence and sparsely scattered throughout the site. The vegetation on site is currently being grazed.

Vegetation on the Alternative 2 site appears to be grass that is maintained on a regular basis.

4.8.1.2 Wildlife

Wildlife at the Preferred Alternative and Alternative 2 site is typical of the urban wildlife found in the region. The site has a diversity of habitat and land use features that provide limited opportunity for wildlife. In addition, the amount of industrial and agricultural activities immediately surrounding the area further limit this opportunity.

Whitetailed deer (*Odocoileus virginianus*) are the largest wild animals typically seen at the site. Other common species include red (*Vulpes vulpes*) or gray foxes (*Urocyon cinereoargenteus*), skunks (*Tamias striatus*), raccoons (*Procyon lotor*), opossums (*Didelphis virginiana*), Eastern cottontail rabbits (*Sylvilagus floridanus*), and squirrels (*Sciurus* spp.).

4.8.1.3 Sensitive Species

Under Section 7 of the Endangered Species Act (ESA), the Army is mandated to use their authority to ensure actions are approved, funded, or carried out to protect both flora and fauna that are considered threatened and endangered species or proposed for listing as threatened or endangered species on the Kirksville site. In compliance with the ESA, informal consultation has been completed with the U.S. Fish and Wildlife Service (USFWS) for the Preferred Alternative site, and a copy of the consultation letter sent by the 88th RSC and response from USFWS may be found in Appendix D. Neither USFWS nor the Army is aware of any resident threatened or endangered species or species proposed for listing as threatened or endangered on the Preferred Alternative site of the proposed USARC.

A Heritage Review Report conducted by the Missouri Department of Conservation was composed for the Preferred Alternative site on November 12, 2008 and for the Alternative 2 site on December 19, 2008. The reports identify records of federal-listed and state-listed (endangered) species or critical habitats near each project site, records of unlisted species/habitats of conservation concern near each site, and recommendations related to each project site. Other than possibly passing through the site, no records of threatened or endangered species or their habitat were found on either site (MDC 2008b). These Heritage Review Reports are also included in Appendix D.

4.8.1.4 Wetlands

Wetlands are defined by the U.S. Army Corps of Engineers (USACE) and the EPA based on the presence of wetland vegetation, wetland hydrology, and hydric soils with certain land area considerations. Wetlands and other surface water features, which may include intermittent and perennial streams, are generally considered “waters of the United States” by the USACE, and under their definition of “jurisdictional waters/features,” are protected under Section 404 of the CWA.

No formal delineation of wetlands has been performed on the Preferred Alternative site or the Alternative 2 site, although no jurisdictional wetlands on either site are recorded in

the National Wetlands Inventory (NWI) (USFWS 1995) (Figures 4-7 and 4-8). No wetlands were identified in the on-site investigation.

4.8.2 Consequences

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

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

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

4.8.2.1 Alternative 1 – Preferred Alternative

Overall, potential impacts to biological resources from the Preferred Alternative would not be significant. The Preferred Alternative would have no overall effect on biodiversity or regional plant and animal populations.

Construction of the proposed USARC would cause short-term impacts on the vegetation surrounding construction sites, but over the long term, existing vegetation around the sites would be expected to remain the same. Irreversible commitments of resources would include a small loss of vegetation in those areas that would not be replanted (that is, previously vegetated areas where buildings or pavement would be located). Any exposed soil resulting from the construction activities would be quickly stabilized with sod. BMPs for erosion control, topsoil management, and revegetation would be required and stated in the construction contract, and therefore potential effects would not be significant. The USARC would be built on land that has already been disturbed (i.e. currently being used as pastureland; a portion of the site was used as a training area for the medical unit of the 89th RRC), so there would not be any loss of native vegetation. A few isolated small trees may have to be removed depending on the final site design. Potential impacts to vegetation would not be significant.

Generally, projects located in previously disturbed or industrial land use areas have little or no effect on migratory bird species. However, all projects and their site locations should plan for and identify the possible presence of migratory bird species. If migratory bird species are encountered, protection from either disturbance or removal of their habitat would be evaluated and measures taken to mitigate any habitat loss or to protect the species. Other grassland birds that may utilize the pasture at various times may be affected. However, since most of the species inhabiting this area are transient, they would move to other similar habitat in the area.

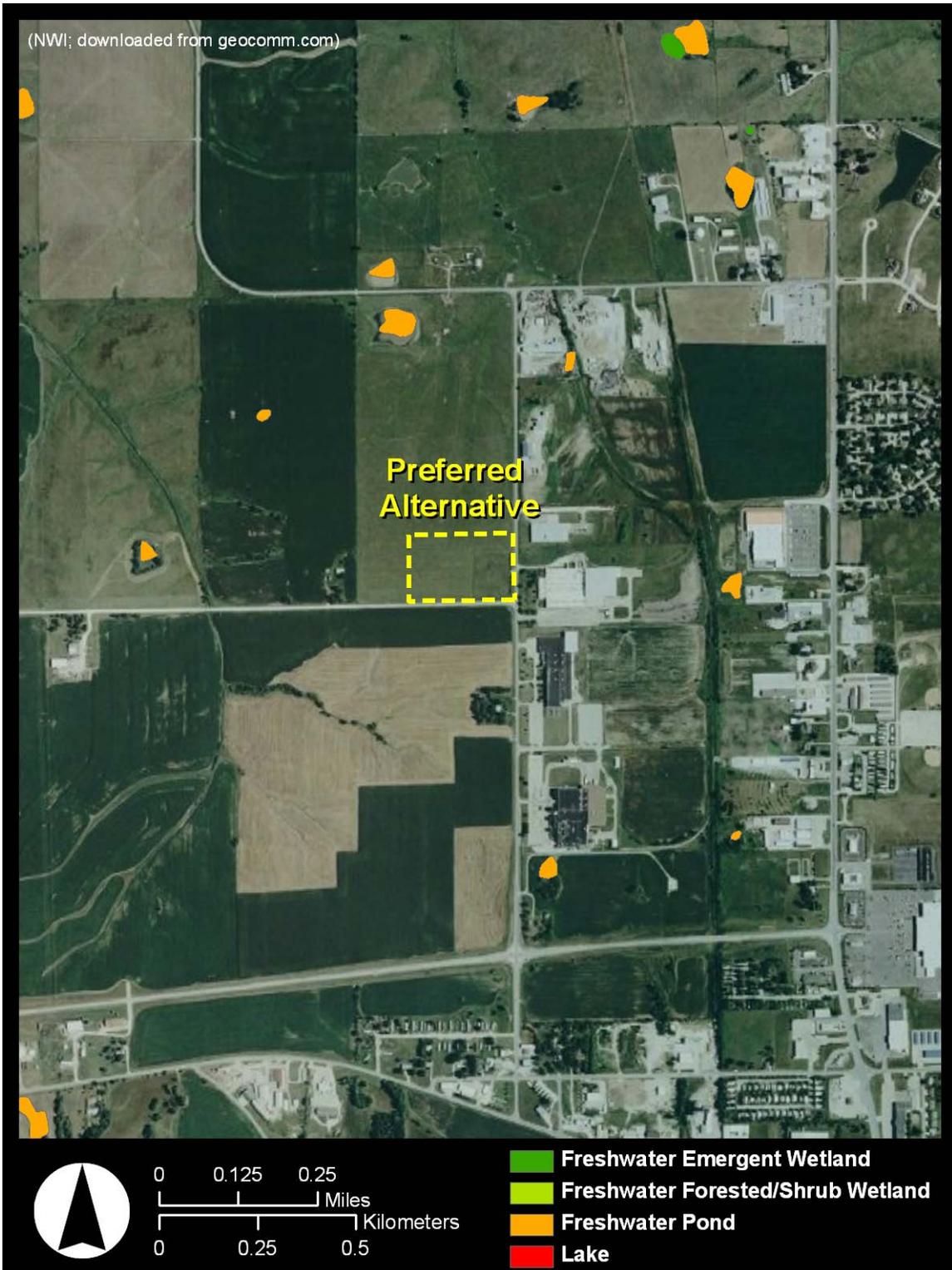


Figure 4-7. National Wetlands Inventory Map for Preferred Alternative

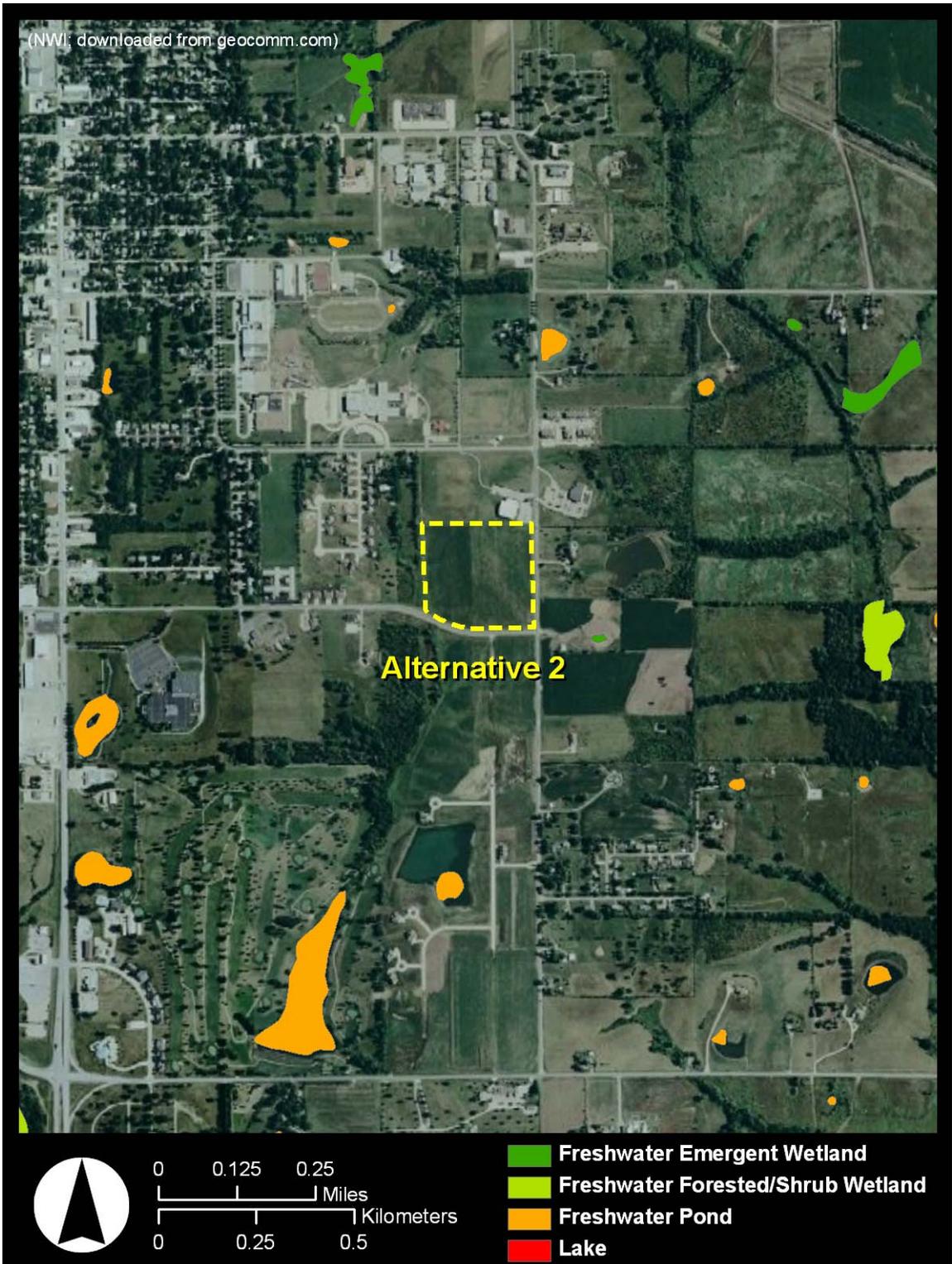


Figure 4-8. National Wetlands Inventory Map for Alternative 2

Construction of the USARC may affect on-site wildlife through the long-term direct loss of a relatively small amount of habitat and direct mortality of individuals occurring in construction zones. These facilities would result in the direct long-term loss of approximately 1 additional acre of very low productivity habitat for ground-dwelling or nesting species. Facility construction would result in loss of foraging and breeding habitat for some urban species. These transient species would move to other similar habitat within the area.

Post-construction impacts to wildlife from operation of the USARC would not be significant. Species currently using the property are accustomed to humans and their activity, and would return to the site once construction activity and noise had abated.

Informal consultation was conducted with USFWS for potential impacts to federally listed species or designated critical habitat. USFWS concurred that no federally listed species or designated critical habitats occur within the project area. Therefore, no impacts to such species would be expected as a result of implementing the Preferred Alternative. A copy of the USFWS response may be found in Appendix D.

No wetlands have been identified on the proposed site, therefore no impacts to wetlands are anticipated.

4.8.2.2 Alternative 2

Impacts to wildlife and vegetation anticipated to occur from Alternative 2 would be similar to those discussed under the Preferred Alternative. USFWS has not been consulted for the Alternative 2 site. However, the MDC Heritage Review Report did not identify any records of protected species or critical habitats (MDC 2008b).

If this site is selected, a more detailed analysis of wetlands would need to be conducted.

4.8.2.3 No Action Alternative

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

4.9 Cultural Resources

4.9.1 Affected Environment

Federal and military regulations, policies, and laws can apply to this property, including Sections 106 and 110 of the National Historic Preservation Act (NHPA), the Native American Graves Protection and Repatriation Act (NAGPRA) and the American Indian Religious Freedom Act (AIRFA).

This section describes the cultural resource conditions on the proposed Kirksville USARC Preferred Alternative site. The prehistoric and historic background of the area is summarized first, followed by the status of cultural resource inventories and Section 106 consultations, and Native American resources.

4.9.1.1 Prehistoric and Historic Background

Prehistoric Sequence

The cultural sequence in the Northeast Prairie Region is summarized below:

Paleo-Indian	(12,000-8,000 B.C.)
Dalton	(8,000-7,000 B.C.)
Early Archaic	(7,000-5,000 B.C.)
Middle Archaic	(5,000-3,000 B.C.)
Late Archaic	(3,000-1,000 B.C.)
Early Woodland	(1,000-500 B.C.)
Middle Woodland	(500 B.C.-A.D. 400)
Late Woodland	(A.D. 400-900)
Mississippian	(A.D. 900-1400)
Historic	

The earliest evidence of human occupation occurred during the Paleo-Indian period. Evidence of these early people is scarce. Organization is believed to have been on the band level. Earlier views of the Paleo-Indian populations focusing on big game hunting have given way to an emphasis on a lifestyle of hunting and gathering. Typically, artifacts associated with the tradition occur as surface finds of projectile points, which have been most often found in the Chariton River Valley.

The Dalton period is characterized as transitional, and fills the time between when hunter gatherer subsistence strategies covered large areas to the time when those strategies were conducted in restricted territories, probably as part of seasonal rounds. This change in patterned behavior may be related to climatic events that occurred following the Pleistocene. Smaller animals began to become more commonly exploited. Atlatls, spears and snares were used in hunting, and fluted points were replaced with partially fluted types, Dalton Serrated projectile points, and lanceolate shaped tools. Other tools, including spokeshaves, adzes, and milling stones attest to the importance of plants in the diet and lifestyles of Dalton peoples. Sites of this period are often found in alluvial environments and in uplands near larger streams.

The trends noted during the Dalton Period continued into the Early Archaic. Hunting and gathering practices included a greater reliance on plant foods, fish and shellfish. Foragers began to use base camps as focal points for group hunting and foraging activities. Sites dating to the period are most often found in the uplands overlooking streams (Warren 1982).

Like the Early Archaic, Middle Archaic period is poorly recognized in the area. Side-notched projectile points may be indicative of the period, leading Anderson and Shutler (1974: 167), which they referred to as the "Prairie Archaic". Sites continued to be small during the Middle Archaic, and a drying climate may have caused an increased reliance on plant collecting and hunting small animals.

During the succeeding Late Archaic the height of the dry, warming trend occurred around 2000 B.C which led to a decline in faunal and floral resources typically found in a forest environment. Late Archaic peoples were adaptative as new ecological niches emerged. A broad range of species were exploited. Late Archaic toolkit assemblages typically contain long narrow forms such as *Sedalia lanceolates*, Etlly stemmed and Stone square stemmed. Other types include Smith basal notched, Helton, and Motley.

The Woodland is divided into Early, Middle and Late periods. The Early Woodland is marked by the appearance of pottery and by the first use of cultigens in some areas. The bow came into use during the Woodland period, as did the appearance of earthen and stone burial mounds. Early Woodland sites in the area are often recognized by pottery types such as Black Swan and Marion Thick. Boyd (1983) identified five Early Woodland sites in the upper Chariton valley. Middle and Late Woodland sites have been recorded along in the Chariton drainage basin west of the project area (Grantham 1977).

After about A.D. 900, Early Mississippian communities became established in the rich alluvial valleys of the Mississippi and Missouri Rivers. There is evidence in the form of Cahokia and side notched arrow points, of some use of the Salt and Chariton valleys. Shell tempered ceramics and triangular arrow points are indicators of Missippian period occupations. The beginnings of the period overlap the Late Woodland in northeast Missouri, with the later occupations principally found along the smaller rivers.

Historic Period

Historic Indian groups who resided in northeast Missouri included the Fox, Illini, Kickapoo, Miami, Missouri, and Osage. The Iowa, Missouri, Oto, and Winnebago are thought to be descendants of protohistorical peoples who lived in the area.

In 1803 the Louisiana Purchase was ratified in which France, under Napoleon Bonaparte, ceded Louisiana to the United States. This transaction, which increased the size of the new nation twofold, included all of the lands that became the State of Missouri. In 1805 the area which includes Adair County, was organized into the territory of Louisiana under Governor James Wilkinson. The territory was divided into four districts, which later became five counties. Adair County was formed in 1841 from a part of Macon County. The county is named after John Adair, a Revolutionary War veteran who later led troops in the Battle of New Orleans, and served as U.S. Senator from Kentucky from 1805 to 1806, and Governor of Kentucky from 1820 to 1824 (Violette 1911:34). The earliest settlers in the county were residents of Howard County, and their settlement, located about six miles west of Kirksville, was known as "The Cabins" and dates to 1828 (Violette 1911:7-8).

When the Blackhawk War broke out in 1832, it caused concern among the settlers of northeastern Missouri. Two of the forts built in this region of Missouri were constructed in present day Adair County (Violette 1911:11).

Kirksville was designated the county seat of Adair County in 1841. It was named for James Kirk, a resident who agreed to supply early surveyors with Thanksgiving dinner and whiskey provided they would name the town after him (Ellebracht 2005:4).

Settlement in Adair County occurred fairly rapidly during the 1840's and 1850's, with settler's mostly coming from Kentucky, Tennessee, Illinois, and Ohio. By the 1860's, the town had prospered.

At the outbreak of the Civil War most of Kirksville's citizens were northern sympathizers. However, Confederate recruiting led to the arrival of the U.S. Third Iowa Regiment, and several skirmishes occurred in the area early in the War. In 1862 Confederate forces under Colonel Joseph C. Porter moved into the Kirksville area. On August 6, 1862 Porter's Confederates fought Union troops under John McNeil. Badly outnumbered, the Confederates were routed and accrued heavy losses (Violette 1911: 107-108).

The population of Adair County saw a steady increase after the war. The 1870 population was 11,448; in 1880, 15,190; in 1890, 17,417; in 1900, 21,728, and in 1910, 22,700 (Grantham and Boyd 1978:30). More recently, in 1990 the population of the county was 24, 577, which increased only slightly to 24,642 in 2007. Of this total, 17,139 persons, or about 70 percent, reside in Kirksville (Ferguson 1997:1; City-Data.com 2008).

4.9.1.2 Status of Cultural Resource Inventories and Section 106 Consultations

Preferred Alternative

A file search of the Missouri Department of Natural Resources, State Historic Preservation Office (SHPO) archives in Jefferson City revealed that three Phase I cultural resources investigations were conducted within a 1-mile radius of the Preferred Alternative project area. These are AD-009 (Saunders and Donham 1983), AD-024 (Angelbeck et al. 1996), and AD-033 (Dycus 2001). The remains of historic debris were located at one of the locales (AD-009), though no further work was recommended. No cultural resources were encountered during the surveys of the other project areas (AD-024 and AD-033).

Phase I cultural resource surveys of the former training area for the medical unit for the 89th RRC (fenced area) and area adjacent to the fenced area were conducted in 2007 and 2008 by Archaeological Research Center of St. Louis (Phase I Cultural Resource Survey of the 7 acre Kirksville Local Training Area, October 2007 and Addendum, October 2008). Approximately 216 shovel tests were excavated to a depth of 30 centimeters (cm) below the surface every 10 meters along transects throughout the site. No cultural resources were recorded during those surveys. A review of historic maps indicated a late-nineteenth century residence of the Richey family once existed in or near the surveyed area, but no evidence was found during any of the surveys.

A Phase I Cultural Resource Survey of 4.6 acres of additional property that is proposed for purchase for the new USARC site was conducted between October 14 and October 16 by PBS&J (PBS&J 2008). A total of 120 shovel tests were excavated to a depth of 30 cm below the surface. No prehistoric or historic artifacts or cultural features were found in any of the shovel tests or the surface investigation. Correspondence with SHPO is included in Appendix D.

Alternative 2

On Monday, January 05, 2009 a review of the Missouri Department of Natural Resources' Adair County National Register Listings on-line database and the National Park Services' National Historic Landmarks Program and National Register Information System on-line databases was conducted. At that time, no National Register of Historic Places (NHRP) properties or districts, or National Historic Landmarks were recorded on or within the APE of the Alternative 2 project location. This review did not include an exhaustive search of recorded archeological sites or consultation with SHPO.

4.9.1.3 Native American Resources

No Native American concerns regarding the Proposed Action have been identified. A list of tribal organizations that were sent consultation letters and all responses received are included in Appendix D.

4.9.2 Consequences

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

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

4.9.2.1 Alternative 1 – Preferred Alternative

No significant negative impacts to architectural resources would be likely as a result of implementation of the proposed action. No buildings listed, eligible for listing, or potentially eligible for listing on the NRHP occur in the project area.

No significant negative impacts to archaeological resources would be likely as a result of implementation of the proposed action. Phase I cultural resources investigations of the 11+/- acre project area were conducted in 2007 and 2008. All shovel tests were negative for cultural material and no resources were found that were potentially eligible for the National Register. A letter of concurrence was received from SHPO dated December 1, 2008 stating that no Historic Properties exist within the proposed project area (Appendix D). Therefore, no impacts to cultural resources are expected from implementation of the proposed action at the Preferred Alternative site.

If, during construction, any potential historic or archaeological resource is uncovered or inadvertent discoveries are made of Native American human remains and associated

funerary objects, sacred objects, or objects of cultural patrimony, the Cultural Resources Manager for the 88th RSC would be contacted, in accordance with typical standard operating procedure for the accidental discovery of archaeological resources or Native American artifacts.

If the federally recognized tribes contacted in connection with this undertaking respond and raise concerns regarding issues of importance to the respective tribes, the 88th RSC will address these concerns as soon as practical.

4.9.2.2 Alternative 2

Should this site location be selected, a Phase I Cultural Resources Survey and consultation with SHPO would need to be conducted.

4.9.2.3 No Action Alternative

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

4.10 Socioeconomics

4.10.1 Affected Environment

The region of influence (ROI) is the geographic area within which the majority of potential impacts to socioeconomic resources would be concentrated. The ROI for the proposed action is a one-county area, Adair County, in the State of Missouri. The proposed action includes the relocation of U. S. Army Reserve 88th RSC at Greentop USARC in Greentop, MO to a new USARC in Kirksville, MO. All of the facilities from which the units would be relocated from are located within the ROI. As a result, the proposed action would not change the number of persons in the ROI.

This section describes the existing socioeconomic conditions for Adair County. Socioeconomic factors include economic development, demographics, housing, and environmental justice.

4.10.1.1 Economic Development

Employment

Earnings of persons employed in Kirksville increased from \$7,354,254 in 2005 to \$7,539,850 in 2006, which is an increase of 2.7 percent. The 2005-2006 national change was 5.7 percent. The average annual growth rate from the 1996 estimate of \$5,555,088 to the 2006 estimate was 3.1 percent. The average annual growth rate for the nation was 5.5 percent for this period.

Total full- and part-time employment in Adair County, MO increased between 1990 and 2000 by 3,700 jobs (Bureau of Economic Analysis [BEA], 2008). Among the industrial sectors, the greatest numeric and percent increase in employment took place in the

services sector where the share of total non-farm employment in the region increased. Substantial increases in employment and share also occurred in the retail trade sector.

Employment in state and local government increased numerically over the period from over 46,578 jobs in 1990 to over 78,666 in 2000. However, its share of total non-farm employment remained relatively stable at between 10 percent and 12 percent. The economy of Adair County is not separable from that of surrounding rural areas, nor is it uniform throughout (University of Missouri Extension Office of Social and Economic Data Analysis 2008)

The Kirksville Regional Economic Development Inc (K-REDI) and the Kirksville Area Chamber of Commerce are the primary organizations managing marketing and business development in the area. The major employers (with more than 350 employees) in Adair County, MO are presented in Table 4-3.

Table 4-3. Major Employers In The Kirksville Region

Employer	Number of Employees
U.S. Dept. of Defense	850
Truman State University	800
NorthEast Regional Health system	700
Adair foods (Kraft foods)	400
A.T. Still University of Health Sciences	450
Kirksville R-III Public School D istrict	380

Source: Kirksville Area Chamber of Commerce 2004.

Regional Income and Earnings

Personal income in Adair County, MO in 2007 totaled over \$646,609,000. The majority of this income (over 60 percent) was derived from earnings, with an additional 30 percent attributable to transfer payments (such as income maintenance, unemployment insurance, and retirement). The remaining contribution was derived from dividends, interest, and rents. Per capita income stood at \$22,491 for the ROE area. Percent of change of personal income from 2005-2006 increased by less than 1 percent. (BEA 2008).

Unemployment

Over the period 1990 through 2006, unemployment rates for Adair County, MO have generally been lower than those in the State of Missouri and those of the nation on a whole (Bureau of Labor Statistics (BLS) 2008). From a high level in 1990, rates declined through 2006 and then remained relatively constant (at between 4 and 6 percent) through 2008 (Economagick.com)

Population

Adair County, MO has experienced population losses (U.S. Census Bureau 2006) every year since 1990. The population of the county is projected to decrease by 7.0% by 2025, compared to the 9.2% projected growth for the state as a whole. The on-post population of Kirksville Reserve Training Center includes military personnel assigned to the post

and civilian personnel employed at the post. Source: (Missouri Economic Research and Information Center)

4.10.1.2 Housing

The total number of housing units in Adair County that was reported in the 2000 Census was 10,826 (U.S. Census Bureau 2008). Of this total, 10.7 percent were vacant and of the occupied units, 60.4 percent were owner-occupied, with the remaining 39.6 percent renter-occupied. Of the occupied housing units in the ROI, fewer than 63 percent are single family detached structures and just over 5 percent are mobile homes (U.S. Census Bureau 2008).

4.10.1.3 Environmental Justice

EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1994), requires federal agencies to achieve environmental justice "to the greatest extent practicable" by identifying and addressing "disproportionately high adverse human health or environmental effects of...activities on minority populations and low income populations." Based on the 2007 State of Missouri census update, Adair County has a minority population comprising less than 1 percent of the total population and a low-income population comprising approximately 13% percent of the total population.

4.10.1.4 Protection of Children

Kirksville Reserve Training Center follows the guidelines as specified for the protection of children as indicated in EO 13045 (1997), Protection of Children from Environmental Health Risks and Safety Risk. This EO requires that federal agencies shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children and ensure that policies, programs, and standards address disproportionate risks to children that result from environmental health or safety risks.

4.10.2 Consequences

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

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

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

4.10.2.1 Alternative 1 – Preferred Alternative

The Economic Impact Forecast System (EIFS) model was used to estimate the economic effects of the proposed action and the results are compared to rational threshold values

(RTVs) as a means of evaluating the significance of these effects in relation to the regional economy. RTVs are positive and negative percent changes in sales volume, income, employment, and population that represent an acceptable range around the maximum historic fluctuations that have occurred within the ROI over the period 1969 through 2000. The EIFS model report, which contains the model inputs, outputs, and significance measures, is provided as Appendix E.

Economic Development

Construction Phase

In terms of personnel, the proposed action involves the relocation of approximately 5 full time U.S. Army Reserve (USAR) personnel and up to 90 reservists for a drill weekend, to Kirksville Reserve Training Center from other existing facilities in the ROI. Construction of the Kirksville USARC Complex under the proposed action is expected to last approximately 12 months (March 2010 to March 2011) and cost \$7.9 Million dollars for Alternative 1. In the short term, expenditures in the local economy for goods and services and direct employment associated with construction would increase sales volume, employment, and income in the ROI. The economic benefits would be temporary, lasting only for the duration of the construction period. It is assumed that capital expenditures for construction of the proposed Kirksville USARC Complex would be spread annually over the 12 month construction period in proportion to the respective duration in each calendar year.

The forecast employment and income effects associated with the proposed construction activity for each year are minimal. The greatest effect would occur in fall/winter 2010 when total employment in the ROI would increase by 61 jobs throughout the year. These jobs would be comprised of 27 direct construction jobs and 34 secondary jobs associated with (a) the procurement of goods, materials, and services and (b) spending (personal consumption expenditures) by the construction workers. Effects in the prior and subsequent years of construction would be less.

This employment effect in 2010 corresponds to a small fraction of less than one percent of regional baseline employment. Suppliers in the ROI would experience a short-term increase in the sale of construction-related materials and provision of services. It is anticipated that the construction workers required by the proposed action would be available in the regional workforce. As of 2005, the ROI contained almost 1,000 full- and part-time jobs in the construction sector of the economy.

Estimates of both the direct and secondary effects of construction activities and the induced effects in related industrial sectors that would be affected by construction expenditures and employment in 2010 when effects would be most evident are minimal. The percentage increase in sales volume, income, and employment are relatively minor and fall within the range of historical fluctuations in those economic parameters, as represented by the RTVs for the region. Short-term minor beneficial effects to the regional economy can be expected from the construction activities required to implement the proposed action.

Operations Phase

There would be no measureable change in long-term employment because the proposed action involves the relocation of existing personnel within the ROI. The facilities from which the units would be relocated would experience decreases in maintenance and repair expenditures. It is anticipated that maintenance and repair expenditures for the proposed Kirksville USARC would not exceed those for the existing facilities and negligible long-term impacts are anticipated.

Population and Housing

The workforce required during the construction phase of the proposed action would be available within the region and no in-migration of construction workers would occur. Thus, no increase in population is anticipated and potential impacts to housing and other community resources would not occur.

Environmental Justice and Protection of Children

The proposed action would be confined to Kirksville Reserve Training Center. Construction and operation of the proposed Kirksville USARC Complex would not result in adverse impacts associated with air quality, noise, groundwater, surface water, or hazardous materials and wastes. Safety measures to protect pedestrians, including children, would be implemented during construction. As a result, minorities, low-income residents, and children living in proximity to Kirksville Reserve Training Center would not be disproportionately impacted by the proposed action. This analysis is considered valid regardless of the total number or percentage of minorities, low-income residents, or children that live in proximity to the area, or the distance of their residences from the area. For these reasons, the proposed action would have no effect on environmental justice or protection of children.

4.10.2.2 Alternative 2

Impacts anticipated to occur from Alternative 2 would be similar to those discussed under the Preferred Alternative, as the ROI is the same for both alternatives.

4.10.2.3 No Action Alternative

Under the No Action Alternative there would be no changes to existing socioeconomic conditions within the ROI.

4.11 Transportation

4.11.1 Affected Environment

This section describes the general traffic conditions within the ROI in terms of access and circulation. The ROI for transportation is defined as the Preferred Alternative and Alternative 2 sites and the immediate vicinity.

4.11.1.1 Roadways and Traffic

The Preferred Alternative site is located less than a mile northwest of the intersection of U.S. Highway 63 and Highway 6. The primary access to the site is along Industrial Road (State Highway B), which intersects with MO 6 approximately 0.6-mile south of the property. Industrial Road is a two-lane, two-way road that runs north to south. Millen Avenue (Rye Creek Road) is a gravel road running east to west along the south side of the property.

Alternative 2 is located northwest of the intersection of Jamison Street and La Harpe Street and is approximately 1 mile northeast of the intersection of U.S. Highway 63 and Highway 6.

4.11.1.2 Public Transportation

There is no direct transit service to the proposed site. The KirkTran Public Transportation System does take reservations from 8-3 daily. The Kirksville Regional Airport is located four miles south of Kirksville. Air Choice One offers daily flights between Kirksville and St. Louis and other charter flights are available to airports throughout the Midwest, including St. Louis, Kansas City and Chicago. Burlington-Northern/Santa Fe Railroad and Amtrak run through La Plata, which is 14 miles south of Kirksville (City of Kirksville 2008).

4.11.2 Consequences

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

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

4.11.2.1 Alternative 1 – Preferred Alternative

Overall, potential transportation impacts from the Preferred Alternative would not be significant, and would have little to no long-term impacts.

During the construction phases of the Proposed Action, a temporary increase in vehicular traffic into and out of the Preferred Alternative site is expected, including the use of heavy equipment. With the construction of new POV parking areas, it is projected that the existing infrastructure at the proposed Kirksville USARC site and the surrounding area would be able to accommodate the increase of 5 full-time employees during the week. As a reserve facility, a maximum of 90 training personnel reporting for reserve duty primarily access the site on drill weekends. There would be an increase in POV traffic (approximately 90 commuters) to and from the facility on weekends, but this is considered minor because it would be on weekends, when local traffic at the surrounding industrial park is less than normal weekday averages.

4.11.2.2 Alternative 2

Impacts anticipated to occur from Alternative 2 would be similar to those discussed under the Preferred Alternative.

4.11.2.3 No Action Alternative

Under the No Action Alternative, there would be no changes to the existing transportation infrastructure at the alternative sites or in surrounding areas.

4.12 Utilities

4.12.1 Affected Environment

This section describes existing utilities at the proposed Kirksville USARC sites. In general, the utility systems are classified as distribution and collection systems including water, wastewater system, and energy sources. Communication systems and solid waste disposal are also discussed in this section. The ROI for utilities is defined as utility services at Kirksville USARC and the associated public utility service providers. Local municipal and commercial utility entities provide all major utilities (water, sewer, natural gas, electricity, and communications) at the proposed Kirksville USARC sites.

4.12.1.1 Potable Water Supply

Potable water can be defined as water fit for drinking, being free from contamination and not containing a sufficient quantity of saline material to be regarded as a mineral water. There are no drinking water or irrigation supply wells located on the property. All water is provided by the City of Kirksville. The sources of the municipal water that would be used at both alternative sites are from two surface water impoundments, Forest Lake (located in Thousand Hills State Park), and Hazel Creek (located approximately 7 miles north of Kirksville) (City of Kirksville 2007). Kirksville goes through approximately 2.4 Million Gallons per Day (MGD) in an average month and there are always at least 3 MGD available (City of Kirksville 2009).

The existing USARC is provided service for potable water by the Adair County Rural Water Supply, with the supply coming from the City of Kirksville.

4.12.1.2 Wastewater System

Wastewater collection and treatment is provided by the City of Kirksville. The City of Kirksville wastewater treatment plant can treat 5 MGD but currently averages approximately 3.5 MGD (City of Kirksville 2009).

4.12.1.3 Storm Water System

If required, a stormwater pollution and prevention plan (SWPPP) will be prepared to meet MDNRDEQ requirements. The proposed site would be permitted for stormwater regulations as required by the MDNRDEQ.

4.12.1.4 Energy Sources

Both electricity and natural gas are available on the site. Electricity is provided by Ameren and natural gas is provided by Atmos Energy.

4.12.1.5 Communication

The USARC utilizes an Alcotel system for its communications services. Alcotel is associated with Avaya. The system is maintained by Cyber, Inc., Peachtree City, Georgia under contract with the U.S. Army Reserve Command in Atlanta.

4.12.1.6 Solid Waste

Solid waste disposal for the City of Kirksville is provided by Veolia Environmental Services of Macon, Missouri.

4.12.2 Consequences

Effects on infrastructure are considered in terms of increases in demands on systems and the ability of existing systems to meet those demands. Potential effects to the environment could occur if the existing systems are insufficient to handle the increased demands requiring construction and operation of a new system that may affect the environment. Utility demands include both construction and operations usage. Utility demands during the operations of the Proposed Action are based on the facility square footage and personnel requirements.

4.12.2.1 Alternative 1 – Preferred Alternative

Overall, potential impacts to utilities from the Preferred Alternative would not be significant.

The Preferred Alternative entails the demolition of structures on the site, land clearing, construction of a new training center, storage building and paving, fencing, general site improvements, and extension of utilities to serve the project. The size of the new USARC would be approximately 21,633 square feet. Personnel would be relocated from Greentop. Utility usage at the new USARC complex would be comparable to that at the existing site, and water would be supplied by the same entity (City of Kirksville), therefore impacts to the local utility system would be minor. Under the Preferred Alternative, irretrievable commitments of resources would occur from the consumptive use of electrical energy and fuel during the construction and operations phases.

Anticipated Usage from Proposed Facility

Water consumption per day (Source: American Water Works Association):

Shower: 11.6 gallon/day & user

Toilets: 18.5

Leaks: 9.5

Faucets: 10.9

Other: 1.6

Total: 42.1 => 45 gallons/day & user

Max drill weekend: 90

2 weekends per month: 4 days/month

=> $90 \times 4 \text{ days/month} \times 45 \text{ gallon/day} = 16,200 \text{ gallon/month}$

Full time personnel: 5

5 day work week: 20 days/month

=> $5 \times 20 \text{ days/month} \times 45 \text{ gallon/day} = 4,500 \text{ gallon/month}$

Total: $16,200 + 4,500 = 20,700 \text{ gallon/month}$

=> $20,700/30 = \mathbf{690 \text{ gallons/day}}$

4.12.2.2 Alternative 2

Impacts anticipated to occur from Alternative 2 would be similar to those discussed under the Preferred Alternative.

4.12.2.3 No Action Alternative

Under the No Action Alternative, no changes to utilities would occur at the site.

4.13 Hazardous and Toxic Substances

4.13.1 Affected Environment

This section describes the existing conditions of hazardous and toxic substances at each alternative site. Management of hazardous materials and hazardous wastes are discussed as well as site clean-up. The ROI is defined as the Preferred Alternative and Alternative 2 sites.

For purposes of this EA, hazardous materials are those regulated under federal, state, DoD, and Army regulations. Hazardous materials are required to be handled, managed, treated, or stored properly by trained personnel under the following regulations: Occupational Safety and Health Administration (OSHA) Hazardous Communication, 29 CFR 1900.1200 and 29 CFR 1926.59; and Department of Transportation Hazardous Materials, 49 CFR 172.101; EPA, 40 CFR 260 et seq. (OSHA 2006).

Preferred Alternative

One pad mounted transformer, observed within the former training area is no longer in use and no signs of staining or leakage was observed during the site reconnaissance. Also, according to the Environmental Baseline Survey (EBS) (Versar 2003), the transformer was manufactured in 1990 and installed in 1991. All transformers manufactured after 1980 are polychlorinated biphenyls (PCB) free.

An Environmental Condition of Property (ECP) Report revealed no evidence of Recognized Environmental Conditions (RECs) in connection with the proposed site (Terraine-Ensafe 8(a) Joint Venture 2008).

Alternative 2

The property appears to be vacant, open grassland with no structures. No ECP or EBS has been conducted for this property.

4.13.2 Consequences

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

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

4.13.2.1 Alternative 1 – Preferred Alternative

The proposed USARC would consist primarily of training and office space as well as administrative service areas. There would be minimal use of hazardous materials, such as janitorial products and printing supplies. Any hazardous materials will be handled and stored in accordance with applicable regulations and label precautions. The addition of privately owned vehicles would result in a negligible increase in the chance of leaks and spills.

Due to the minimal use of hazardous materials and minimal waste generation in this proposed facility, there would be negligible, long-term, adverse impacts related to hazardous or toxic substances from the proposed facility's operation.

4.13.2.2 Alternative 2

Impacts anticipated to occur from Alternative 2 would be similar to those discussed under the Preferred Alternative. If this site is selected, an ECP study will need to be conducted in order to determine potential RECs in connection with the property.

4.13.2.3 No Action Alternative

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

4.14 Cumulative Effects Summary

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

The scope of the cumulative effect analysis involves evaluating impacts to environmental resources by geographic extent of the effects and the time frame in which the effects are expected to occur. Past, present, and reasonably foreseeable actions are identified first, followed by the cumulative effects that could result from these actions when combined with the Proposed Action.

4.14.1 Past, Present, and Reasonably Foreseeable Actions

The geographic area analyzed for cumulative impacts includes both the proposed Kirksville USARC alternatives and approximately 1 mile surrounding the site. No past, present, or reasonably foreseeable future projects were identified on the Preferred Alternative site or Alternative 2 site. The only reasonably foreseeable actions identified within the 1-mile radius of the Preferred Alternative are potential light industrial businesses coming into the Industrial Park. There were no specific foreseeable actions identified within the 1-mile radius of Alternative 2.

4.14.2 Cumulative Effects

Environmental effects for all resources potentially affected by the Proposed Action when combined with the identified reasonably foreseeable projects are discussed below.

4.14.2.1 Land Use

The Proposed Action would not cause any incremental impacts to land use when combined with the future projects in the vicinity of the Preferred Alternative, because these projects would occur on land that is already used for light industrial purposes and is zoned as such. Alternative 2 would not present conflicts or nonconformance with current local or state land use or zoning designations, therefore no cumulative impacts would be anticipated when combined with future projects in the vicinity.

4.14.2.2 Aesthetics and Visual Resources

Construction of the USARC at either site would cause incremental impacts to aesthetics and visual resources when combined with the future development if construction occurred simultaneously. These impacts would be temporary and would not be significant.

4.14.2.3 Air Quality

If the construction periods overlapped, the Proposed Action would cause short-term incremental impacts to air quality when combined with the construction, demolition, or renovation aspects of the future projects listed in Section 4.14.1. Construction, renovation, or demolition may cause increased short-term external combustion in air emissions from heavy equipment usage. These impacts would be temporary impacts and would not be significant.

4.14.2.4 Noise

The Proposed Action would cause short-term incremental impacts to noise when combined with the construction aspects of the future projects listed in Section 4.14.1 if

construction occurred simultaneously. These impacts would be temporary, and cumulative effects to noise would not be significant.

4.14.2.5 Geology and Soils

The Proposed Action would cause long-term incremental impacts to geology and soils when combined with the future projects listed in Section 4.14.1 through the addition of impervious surfaces to the general vicinity of the Kirksville USARC. Incremental impacts would result in the reduction of infiltration of precipitation into the soil; however, the cumulative effects to geology and soils would not be significant.

4.14.2.6 Water Resources

The Proposed Action would cause long-term incremental impacts to water resources when combined with the future projects listed in Section 4.14.1 through the addition of impervious surfaces to the general vicinity of the Kirksville USARC. Incremental impacts would result in the reduction of groundwater recharge via soil infiltration; however the cumulative effect would not be significant.

4.14.2.7 Biological Resources

The Proposed Action would cause long-term incremental impacts to biological resources when combined with the future projects listed in Section 4.14.1 by removing vegetation and causing the direct loss of plant and wildlife habitats in the general vicinity of the Kirksville USARC. However, these projects together would not substantially diminish the quality or quantity of habitat for plants or animals, nor would they substantially diminish regional or local populations of plant or animal species. Cumulative effects to biological resources would therefore not be significant.

4.14.2.8 Cultural Resources

No impacts to cultural resources would occur as a result of the proposed action; therefore, cumulative effects to cultural resources would not be significant. Ground disturbance due to the Proposed Action and the future projects would involve the potential for discovery of or impact to previously unrecorded cultural artifacts. Strict adherence to a standard operating procedure (SOP) regarding the inadvertent discovery of archaeological resources would minimize the possibility of adverse impacts.

4.14.2.9 Socioeconomics

The Proposed Action may cause short-term incremental impacts to socioeconomics when combined with the future projects listed in Section 4.14.1. Beneficial short-term impacts would result from construction activities from an increase in employment and economic development.

Under the Proposed Action, there would be no substantial changes in personnel or to socioeconomic factors. Therefore, the Proposed Action when combined with projects listed in Section 4.14.1 would not result in long-term cumulative impacts to socioeconomics.

4.14.2.10 Transportation

The Proposed Action may cause incremental impacts to transportation when combined with the future projects listed in Section 4.14.1. Short-term incremental impacts would result from increases in vehicular traffic from construction activities. Long-term increase in vehicular traffic would be caused by use of the proposed facility. Based on limited information known about future projects (discussed in Section 4.14.1), cumulative impacts to transportation would not be significant.

4.14.2.11 Utilities

The Proposed Action may cause short-term incremental impacts to utilities when combined with the future projects listed in Section 4.14.1. Incremental impacts would result from construction solid waste. Solid waste produced by these projects would be shipped to a municipal landfill and would not be expected to cause adverse impacts to the landfill. Long-term incremental impacts would result from use of additional capacity of water and wastewater systems. Based on limited information known about future projects (discussed in Section 4.14.1), cumulative impacts to utilities are not anticipated to be significant.

4.14.2.12 Hazardous and Toxic Substances

The Proposed Action may cause short-term incremental impacts from the use of hazardous and toxic substances during construction when combined with the future projects listed in Section 4.14.1. Incremental impacts would also result from increased waste from heavy construction equipment (i.e. hydraulic fluid), addition of POVs, and/or cleaners or solvents. However, overall cumulative impacts from hazardous and toxic substances would not be significant.

4.15 Mitigation Summary

Mitigation measures are measures that are integral to an alternative to reduce impacts. No mitigation measures are required for the Preferred Alternative discussed in this EA because resulting impacts are not significant. If the Alternative 2 site is selected, additional studies would need to be conducted, and mitigation may be required.

5.0 FINDINGS AND CONCLUSIONS

Direct, indirect, and cumulative impacts of the Preferred Alternative, Alternative 2, and the No Action Alternative have been considered. No significant adverse impacts were identified.

Therefore, the issuance of a FNSI is warranted, and preparation of an environmental impact statement is not required. Implementation of the No Action Alternative is not feasible because the BRAC actions are required by law to be implemented.

6.0 LIST OF PREPARERS

PBS&J
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Jacksonville, Florida 32256

Name	Contribution	Experience
Dalton, Amy	Primary Author	8
Epps, Carissa	Document Specialist	8
Fitzgibbons, Kim	Project Manager, QA/QC Review, Author	13
Furman, Brad	GIS Analyst	3
Smith, Nancy	Economist	22

7.0 DISTRIBUTION LIST

The following agencies were notified that the Final EA is available for public review:

USFWS, Columbia Missouri Field Office

SHPO, Jefferson City, Missouri

MDNR, Jefferson City, Missouri

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9.0 ACRONYM LIST

µg/m ³	micrograms per cubic meter
ACSIM	Assistant Chief of Staff for Installation Management
AIRFA	American Indian Religious Freedom Act
APE	Area of Potential Effects
ARC	Army Reserve Center
ASIV	Available Site Identification and Validation Report
AT/FP	Anti-terrorism/Force Protection
BEA	Bureau of Economic Analysis
BLS	Bureau of Labor Statistics
BMP	best management practice
BRAC	Base Realignment and Closure
CAIR	Clean Air Interstate Rule
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CM	centimeters
CO	carbon monoxide
CWA	Clean Water Act
dB	decibel
dba	A-weighted decibel
DoD	U.S. Department of Defense
EA	Environmental Assessment
EBS	Environmental Baseline Study
ECM	Erosion Control Measure
ECP	Environmental Condition of Property
EIFS	Economic Impact Forecast System
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPAct05	Energy Policy Act of 2005
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FNSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FY	fiscal year
H ₂ S	hydrogen sulfide
HUC	Hydrologic Unit Code
HVAC	heating, ventilation, and air conditioning
K-REDI	Kirksville Regional Economic Development Inc.
MO	Missouri
MDC	Missouri Department of Conservation
MDNR	Missouri Department of Natural Resources
MGD	Million Gallons per Day

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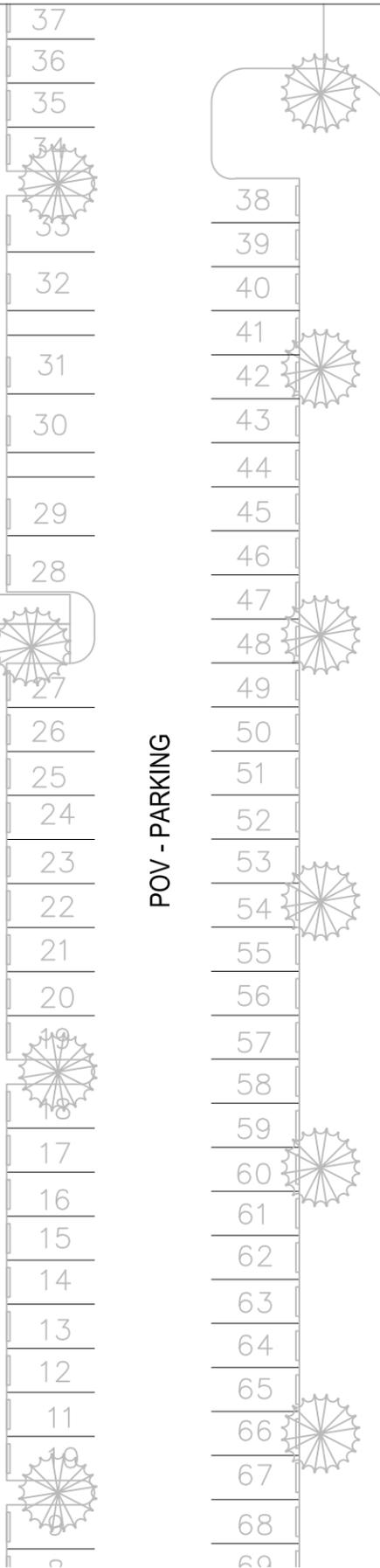
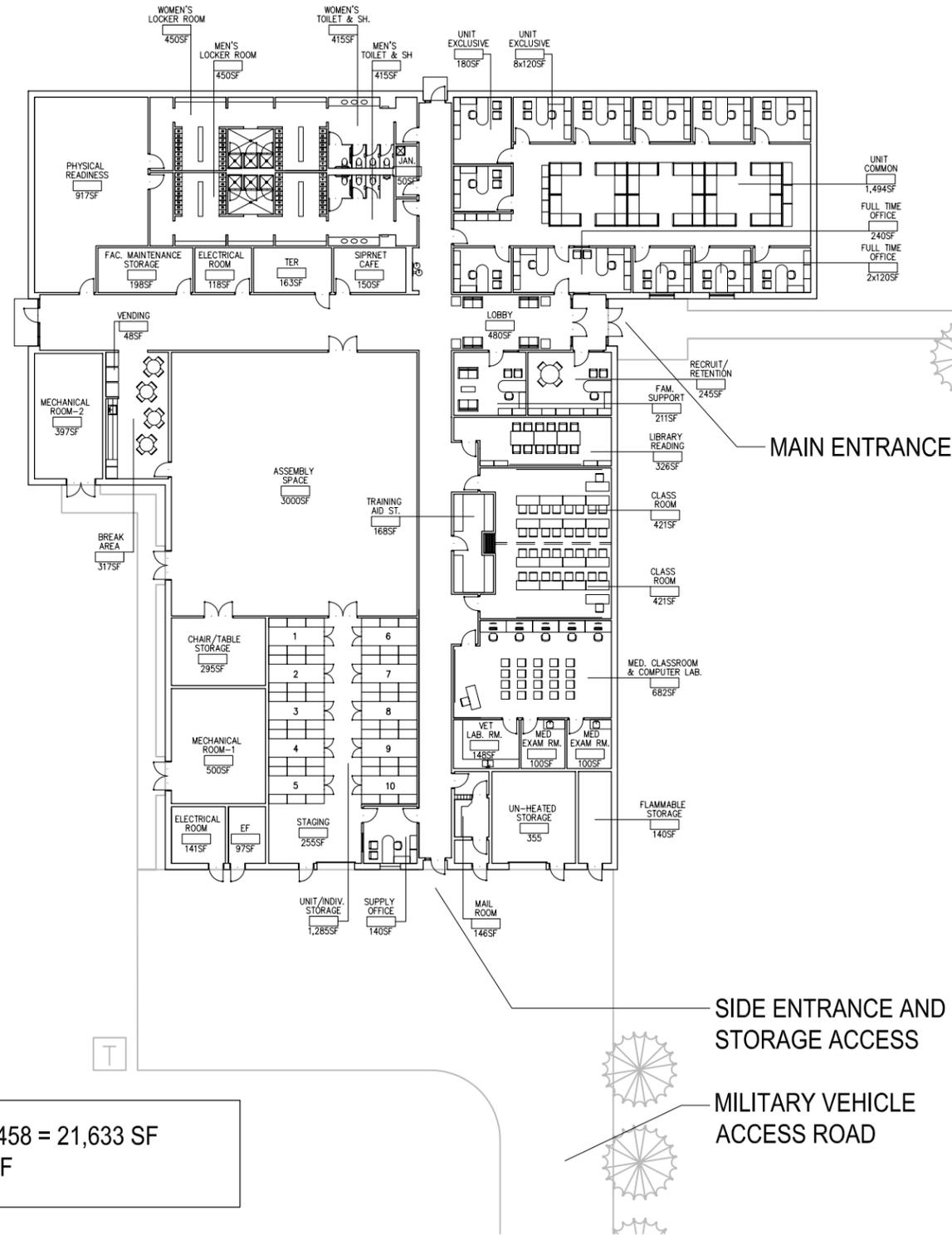
MSL	mean sea level
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NOA	Notice of Availability
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O ₃	ozone
OSHA	Occupational Safety and Health Administration
Pb	lead
PCB	polychlorinated biphenyl
PM _{2.5}	particulate matter with an aerodynamic size less than or equal to 2.5 microns
PM ₁₀	particulate matter with an aerodynamic size less than or equal to 10 microns
POLs	petroleum, oils, and lubricants
POVs	privately-owned vehicles
ppm	parts per million
PSD	Prevention of Significant Deterioration
PUD	Planned Unit Development
REC	Recognized Environmental Conditions
ROI	region of influence
RRC	Regional Readiness Command
RSC	Regional Support Command
RTV	rational threshold value
SDD	Sustainable Design and Development
SHPO	State Historic Preservation Office
SO ₂	sulfur dioxide
SOP	standard operating procedure
SO _x	sulfur oxides
SPCC	Spill Prevention, Control, and Countermeasures
SVOC	semi-volatile organic compound
SWPPP	Storm Water Pollution Prevention Plan
Tpy	tons per year
USACE	U.S. Army Corps of Engineers
USARC	U.S. Army Reserve Center
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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UST	underground storage tank
VOC	volatile organic compound

APPENDICES

**Appendix A
Conceptual Floor Plan**



AREA SUMMARY

GROSS AREA - ADJUSTED: 21,175 + 458 = 21,633 SF
 GROSS AREA - PROPOSED: 20,750 SF

**Appendix B
Photographs**



Photo 1. Looking north across former training area within fenced area (Preferred Alternative).



Photo 2. Looking east toward gate and Industrial Road (Preferred Alternative).



Photo 3. Southern portion of Preferred Alternative Site (latrine area within former training facility).



Photo 4. Western portion of Preferred Alternative site (outside of fenced area).

**Appendix C
Proposed Site Layout**

PARCEL LIMIT

PARCEL LIMIT

148' STAND-OFF DISTANCE

MECHANICAL ROOMS
ENTRY FACILITY (EF)
MAIN EL. ROOM

TRANSFORMER LOCATION

MAIN ENTRANCE

SIDE ENTRANCE AND
STORAGE ACCESS

VEHICLE GATE

TRASH ENCLOSURE

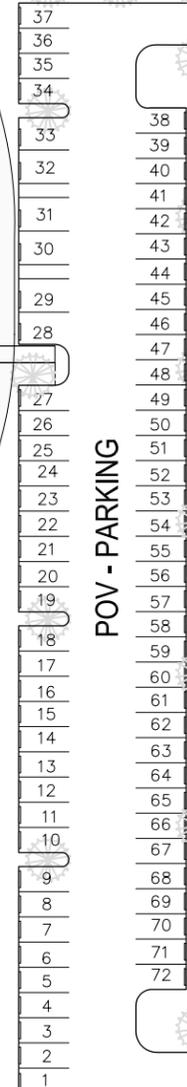
POV - PARKING

INDUSTRIAL ROAD

RYE CREEK ROAD

AREA SUMMARY - PAVING

64814 - PAVING, WALKS & ACCESS ROADS: 2,772 SY
PROPOSED - POV PARKING: 2,520 SY
- WALKS: 200 SY
- STORAGE ACCESS: 1,150 SY



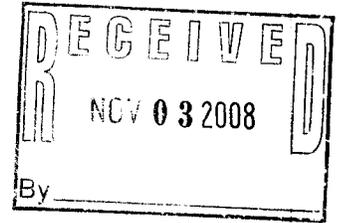
**Appendix D
Agency Coordination**



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 89TH REGIONAL READINESS COMMAND
3130 GEORGE WASHINGTON BOULEVARD
WICHITA, KANSAS 67210-1598

REPLY TO
ATTENTION OF:

October 31, 2008



Mr. Charlie Scott
U.S. Fish and Wildlife Service
Columbia, Missouri Field Office
101 Park DeVille Drive, Suite A
Columbia, MO 65203

RE: Environmental Assessment - Early Coordination Notification
U.S. Army Reserve - Proposed Military Construction Project
Kirksville, Missouri

Dear Mr. Scott,

The Assistant Chief of Staff Installation Management, Operations Directorate Reserve Division and the U.S. Army Reserve, Environmental Branch, are preparing an Environmental Assessment (EA) located in Kirksville, Missouri as part of the restructuring of military bases as required by the Defense Base Closure and Realignment Act (BRAC).

The proposed action includes the construction of an Army Reserve Center, which includes a training building, an unheated storage facility, and organizational parking to accommodate the training of US Army Reserve Soldiers. Two U.S. Army Reserve units will relocate to this location from Greentop, Missouri. A regional location map and an aerial photograph of the proposed project are depicted as Figures 1 and 2.

During the course of the EA, detailed investigations will be undertaken to identify potential Social, Economic, and Environmental (SEE) impacts related to the improvements being considered. These SEE impacts will be documented in the EA as required by the National Environmental Policy Act (NEPA). In addition to meeting the requirements of NEPA, compliance with other relevant environmental regulations (Section 7 of the Threatened and Endangered Species Act, Section 106 of the National Historic Preservation Act, etc.) will be accomplished during the EA.

As part of the early coordination and NEPA scoping process, we are identifying key issues that will need to be addressed as part of this study. Please provide your comments relative to the following three topics:

- Specific issues or geographic areas of concern, based on your expertise or regulatory jurisdiction.
- Available technical information regarding these issues.
- Mitigation or permitting requirements that may be necessary for project implementation.



In order to sufficiently address key project issues while maintaining the project schedule, we are requesting that you provide a written response to this letter within 30 days of receipt.

Please send your responses to:

Mr. William S. Titterington
Chief, Environmental Division
U.S. Army 89th Regional Readiness Command
3130 George Washington Blvd.
Wichita, KS 67210-1598

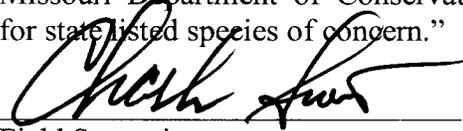
Please feel free to contact William Titterington at (316) 681-1759, extension 1469 should you have any questions or concerns or would like additional information:

We look forward to working cooperatively with you to make this important project successful for all parties involved.


JOHN A. FENILI
Facility Management Officer

Enclosures

“The U.S. Fish and Wildlife Service has reviewed the subject project proposal and determined that no federally listed species or designated critical habitat occurs within the project area. Consequently, this concludes section 7 consultation. Please contact the Missouri Department of Conservation (573/522-4115) for state listed species of concern.”


Field Supervisor

11/4/08
Date



Missouri Department of Conservation Heritage Review Report

November 12, 2008; page 1 of 2

Policy Coordination Unit
P. O. Box 180
Jefferson City, MO 65102
Prepared by: Shannon Cave
shannon.cave@mdc.mo.gov
573-522-4115X3250

Bradley Furman
PBS&J Ecological Sciences
7406 Fullerton Street, Suite 350
Jacksonville, Florida 32256

Email to: btfurman@pbsj.com

Project type:	Construction & Development
Location/Scope:	NE ¼ of Section 32 of T63N R15W
County:	Adair
Query reference:	Kirksville BRAC
Query received:	November 12, 2008

Authenticity may be confirmed by Policy Coordination Unit, Missouri Department of Conservation, 573-522-4115.

This NATURAL HERITAGE REVIEW is not a site clearance letter. Rather, it indicates whether or not public lands and sensitive resources are known to be located close to and potentially affected by the proposed project.

FEDERAL LIST species/habitats are protected under the Federal Endangered Species Act. Consult with the U.S. Fish and Wildlife Service (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; 573-234-2132). STATE ENDANGERED species are listed in and protected under the Wildlife Code of Missouri (3CSR10-4.111).

Records of federal-listed or state-listed (endangered) species or critical habitats near the project site:

The only record within one mile is of Indiana bats (*myotis sodalis*, federally and state listed “endangered”), found on the sides of buildings in Kirksville over a decade ago.

These mammals hibernate during winter months, in caves primarily in the southern half of Missouri. They spend summer months, primarily north of the Missouri River, roosting and raising young under the bark of trees in riparian forests and upland forests near perennial streams. Concerns would center about removal of large trees with loose bark and destruction of wooded corridor along perennial streams. Satellite images suggest that neither would be involved with development at this site. If such removals are planned, consultation with U.S. Fish and Wildlife Service would be appropriate (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132).

Heritage records were identified at some date and at a more or less precise location. This report includes information about records near but not necessarily on the project site. Animals move and, over time, so do plant communities. To say “there is a record” does not mean the species/habitat is still there. To say that “there is no record” does not mean the project will not encounter something not recorded. On-site verification is the responsibility of the project. Incorporating information from Heritage records into plans can help reduce adverse impacts to sensitive natural resources. However, these records only provide one reference and other information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Compare biological and habitat needs of records listed to planned project activities to avoid or minimize impacts. More information may be found at www.mdc.mo.gov/nathis/endangered/ and mdc4.mdc.mo.gov/applications/mofwis/mofwis_search1.aspx.

Records of unlisted species/habitats of conservation concern near the site:

None within one mile.

Recommendations related to this project or site (not to specific heritage records):

- Indiana bats could occur. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. If large trees with loose bark need to be removed by your project, that should be done between October and March. Additional information to incorporate in planning documents is available at <http://mdc.mo.gov/110>.
- The proposed project occurs in the vicinity of "booming grounds", or courtship areas, for greater prairie chickens (*tympuchus cupido*, state endangered). This grassland bird may nest and forage in grasslands several miles away from the booming ground. See <http://mdc.mo.gov/130> for best management recommendations. Prairie chickens may use grasslands in the project area, but current site usage appears not to include the kinds of habitat that are important for greater prairie chickens.
- Streams in the area should be protected from soil erosion, water pollution and in-stream activities that modify or diminish aquatic habitats. Best management recommendations relating to streams

and rivers may be found at <http://mdc.mo.gov/8452>.

- Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, and larvae may be moved to new sites on boats or construction equipment, so inspect and clean equipment thoroughly before moving between project sites. Especially important at this time is the zebra mussel, known in the Missouri and Mississippi Rivers and Lake of the Ozarks, but missing from many inland streams and most lakes.
 - ◆ Remove any mud, soil, trash, plants or animals before leaving any water body or work area.
 - ◆ Before leaving a project site, drain water from boats and machinery (that has operated in the water), checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
 - ◆ When possible, wash and rinse equipment thoroughly with hard spray or HOT (104° F or more) water, like that found at a do-it-yourself carwash and dry in the hot sun before using again. Please help prevent the spread of invasive species by inspecting and cleaning equipment thoroughly before moving between project sites.

These recommendations are ones project managers might prudently consider based on a general understanding of species needs and landscape conditions. Heritage records largely reflect only sites visited by specialists in the last 30 years. This means that many privately owned tracts could host remnants of species once but no longer common.

Project managers can pre-screen heritage review requests at tinyurl.com/heritagereview. A "Level 1 response" will result in a printable document that will make further submission to MDC or USFWS unnecessary.





Missouri Department of Conservation Heritage Review Report

December 19, 2008; page 1 of 2

Policy Coordination Unit
P. O. Box 180
Jefferson City, MO 65102
Prepared by: Shannon Cave
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573-522-4115X3250

Bradley Furman
PBS&J Ecological Sciences
7406 Fullerton Street, Suite 350
Jacksonville, Florida 32256

Email to: btfurman@pbsj.com

Project type:	Construction & Development
Location/Scope:	NE ¼ of Section 32 of T63N R15W and Section 15 of T62N R15W
County:	Adair
Query reference:	Kirksville BRAC
Query received:	November 12, 2008

Authenticity may be confirmed by Policy Coordination Unit, Missouri Department of Conservation, 573-522-4115.

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Records of federal-listed or state-listed (endangered) species or critical habitats near the project site:

The only record within one mile is of Indiana bats (*myotis sodalis*, federally and state listed "endangered"), found on the sides of buildings in Kirksville over a decade ago.

These mammals hibernate during winter months, in caves primarily in the southern half of Missouri. They spend summer months, primarily north of the Missouri River, roosting and raising young under the bark of trees in riparian forests and upland forests near perennial streams. Concerns would center about removal of large trees with loose bark and destruction of wooded corridor along perennial streams. Satellite images suggest that neither would be involved with development at this site. If such removals are planned, consultation with U.S. Fish and Wildlife Service would be appropriate (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132).

Heritage records were identified at some date and at a more or less precise location. This report includes information about records near but not necessarily on the project site. Animals move and, over time, so do plant communities. To say "there is a record" does not mean the species/habitat is still there. To say that "there is no record" does not mean the project will not encounter something not recorded. On-site verification is the responsibility of the project. Incorporating information from Heritage records into plans can help reduce adverse impacts to sensitive natural resources. However, these records only provide one reference and other information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Compare biological and habitat needs of records listed to planned project activities to avoid or minimize impacts. More information may be found at www.mdc.mo.gov/nathis/endangered/ and mdc4.mdc.mo.gov/applications/mofwis/mofwis_search1.aspx.

Recommendations related to this project or site (not to specific heritage records):

- Indiana bats could occur. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. If large trees with loose bark need to be removed by your project, that should be done between October and March. Additional information to incorporate in planning documents is available at <http://mdc.mo.gov/110>.
- The proposed project occurs in the vicinity of "booming grounds", or courtship areas, for greater prairie chickens (*tympnanuchus cupido*, state endangered). This grassland bird may nest and forage in grasslands several miles away from the booming ground. See <http://mdc.mo.gov/130> for best management recommendations. Prairie chickens may use grasslands in the project area, but current site usage appears not to include the kinds of habitat that are important for greater prairie chickens.
- Streams in the area should be protected from soil erosion, water pollution and in-stream activities that modify or diminish aquatic habitats. Best management recommendations relating to streams and rivers may be found at <http://mdc.mo.gov/8452>.

- Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, and larvae may be moved to new sites on boats or construction equipment, so inspect and clean equipment thoroughly before moving between project sites. Especially important at this time is the zebra mussel, known in the Missouri and Mississippi Rivers and Lake of the Ozarks, but missing from many inland streams and most lakes.
- ◆ Remove any mud, soil, trash, plants or animals before leaving any water body or work area.
 - ◆ Before leaving a project site, drain water from boats and machinery (that has operated in the water), checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
 - ◆ When possible, wash and rinse equipment thoroughly with hard spray or HOT (104° F or more) water, like that found at a do-it-yourself carwash and dry in the hot sun before using again. Please help prevent the spread of invasive species by inspecting and cleaning equipment thoroughly before moving between project sites.

These recommendations are ones project managers might prudently consider based on a general understanding of species needs and landscape conditions. Heritage records largely reflect only sites visited by specialists in the last 30 years. This means that many privately owned tracts could host remnants of species once but no longer common.

Project managers can pre-screen heritage review requests at tinyurl.com/heritagereview. A "Level 1 response" will result in a printable document that will make further submission to MDC or USFWS unnecessary.





DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 89TH REGIONAL READINESS COMMAND
3130 GEORGE WASHINGTON BOULEVARD
WICHITA, KANSAS 67210-1598

REPLY TO
ATTENTION OF:

November 19, 2008

Mr. Mark Miles
State Historic Preservation Office
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102

RE: Environmental Assessment - Early Coordination Notification
U.S. Army Reserve - Proposed Military Construction Project
Kirksville, Missouri

Dear Mr. Miles :

The Assistant Chief of Staff Installation Management, Operations Directorate Reserve Division and the U.S. Army Reserve, Environmental Branch, are preparing an Environmental Assessment (EA) located in Kirksville, Missouri as part of the restructuring of military bases as required by the Defense Base Closure and Realignment Act (BRAC).

The proposed action includes the construction of an Army Reserve Center, which includes a training building, an unheated storage facility, and organizational parking to accommodate the training of US Army Reserve Soldiers. Two U.S. Army Reserve units will relocate to this location from Greentop, Missouri. A regional location map and an aerial photograph of the proposed project are depicted as Figures 1 and 2. The proposed project is located in Section 32, Township 63 North, Range 15 West.

During the course of the EA, detailed investigations will be undertaken to identify potential Social, Economic, and Environmental (SEE) impacts related to the improvements being considered. These SEE impacts will be documented in the EA as required by the National Environmental Policy Act (NEPA). In addition to meeting the requirements of NEPA, compliance with other relevant environmental regulations (Section 7 of the Threatened and Endangered Species Act, Section 106 of the National Historic Preservation Act, etc.) will be accomplished during the EA.

A previous cultural resources survey conducted (by Archaeological Research Center of St. Louis, Inc.) in October 2007 (within the southeastern portion of the site) that was reviewed and approved by the State Historic Preservation Office indicated that there will be no historic properties affected by the Proposed Action. Additional cultural resource surveys were conducted on October 15-16, 2008 (by PBS&J) and October 22, 2008 (by Archaeological Research Center of St. Louis, Inc.) for additional portions of the site. Collectively, over 300 shovel tests have been performed on the project site, all of which were negative for cultural material. These surveys will be discussed in detail in the EA.

As part of the early coordination and NEPA scoping process, we are identifying key issues that will need to be addressed as part of this study. Please provide your comments relative to the following three topics:

- Specific issues or geographic areas of concern, based on your expertise or regulatory jurisdiction.
- Available technical information regarding these issues.
- Mitigation or permitting requirements that may be necessary for project implementation.

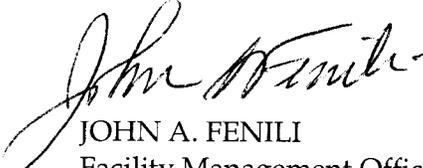
In order to sufficiently address key project issues while maintaining the project schedule, we are requesting that you provide a written response to this letter within 30 days of receipt.

Please send your responses to:

Mr. William S. Titterington
Chief, Environmental Division
U.S. Army 89th Regional Readiness Command
3130 George Washington Blvd.
Wichita, KS 67210-1598

Please feel free to contact William Titterington at (316) 681-1759, extension 1469, e-mail-william.titterington@us.army.mil should you have any questions, concerns, would like additional information or be involved in the process.

We look forward to working cooperatively with you to make this important project successful for all parties involved.


JOHN A. FENILI
Facility Management Officer

Enclosures

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Matt Blunt, Governor • Doyle Childers, Director

www.dnr.mo.gov

December 1, 2008

John A. Fenili
Headquarters, US Army 89th
Regional Readiness Command
3130 George Washington Boulevard
Wichita, Kansas 67210-1598

Re: Kirksville Local Training Area (USDOD) Adair County, Missouri

Dear Mr. Fenili:

Thank you for submitting information on the above referenced project for our review pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which requires identification and evaluation of cultural resources.

We have reviewed the October 2008 report entitled *Addendum to: Phase I Cultural Resource Survey of the 7 Acre Kirksville Local Training Area, Adair County, Missouri* by the Archaeological Research Center of St. Louis, Inc. Based on this review it is evident that a thorough and adequate cultural resources survey has been conducted of the project area. We concur with the investigator's recommendation that there will be **no historic properties affected** and, therefore, we have no objection to the initiation of project activities.

Please be advised that, should project plans change, information documenting the revisions should be submitted to this office for further review. In the event that cultural materials are encountered during project activities, all construction should be halted, and this office notified as soon as possible in order to determine the appropriate course of action.

If you have any questions, please write Judith Deel at State Historic Preservation Office, P.O. Box 176, Jefferson City, Missouri 65102 or call 573/751-7862. Please be sure to include the SHPO Log Number **(005-AD-09)** on all future correspondence or inquiries relating to this project.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE



Mark A. Miles
Director and Deputy
State Historic Preservation Officer

MAM:jd

c Kate Ellison, 89th Readiness
Joe Harl, ARC



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 89TH REGIONAL READINESS COMMAND
3130 GEORGE WASHINGTON BOULEVARD
WICHITA, KANSAS 67210-1598

REPLY TO
ATTENTION OF:

December 3, 2008

June Fixico
Chairperson
Kialegee Tribal Town of Creek Nation
2035 S Main Street
Wetumka, OK 74883

RE: Environmental Assessment - Early Coordination Notification
U.S. Army Reserve - Proposed Military Construction Project
Kirksville, Missouri

Dear Mr./Ms. June Fixico :

The Assistant Chief of Staff Installation Management, Operations Directorate Reserve Division and the U.S. Army Reserve, Environmental Branch, are preparing an Environmental Assessment (EA) located in Kirksville, Missouri as part of the restructuring of military bases as required by the Defense Base Closure and Realignment Act (BRAC).

The proposed action includes the construction of an Army Reserve Center, which includes a training building, an unheated storage facility, and organizational parking to accommodate the training of US Army Reserve Soldiers. Two U.S. Army Reserve units will relocate to this location from Greentop, Missouri. A regional location map of the proposed project is depicted as Figure 1. The proposed project is located in Section 32, Township 63 North, Range 15 West.

During the course of the EA, detailed investigations will be undertaken to identify potential Social, Economic, and Environmental (SEE) impacts related to the improvements being considered. These SEE impacts will be documented in the EA as required by the National Environmental Policy Act (NEPA). In addition to meeting the requirements of NEPA, compliance with other relevant environmental regulations (Section 7 of the Threatened and Endangered Species Act, Section 106 of the National Historic Preservation Act, etc.) will be accomplished during the EA.

A previous cultural resources survey conducted (by Archaeological Research Center of St. Louis, Inc.) in October 2007 (within the southeastern portion of the site) that was reviewed and approved by the State Historic Preservation Office indicated that there will be no historic properties affected by the Proposed Action. Additional cultural resource surveys were conducted on October 15-16, 2008 (by PBS&J) and October 22, 2008 (by Archaeological Research Center of St. Louis, Inc.) for additional portions of the site. Collectively, over 300 shovel tests have been performed on the project site, all of which were negative for cultural material. These surveys will be discussed in detail in the EA.

As part of the early coordination and NEPA scoping process, we are identifying key issues that will need to be addressed as part of this study. Please provide your comments relative to the following three topics:

- Specific issues or geographic areas of concern, based on your expertise or regulatory jurisdiction.
- Available technical information regarding these issues.
- Mitigation or permitting requirements that may be necessary for project implementation.

In order to sufficiently address key project issues while maintaining the project schedule, we are requesting that you provide a written response to this letter within 30 days of receipt. Please send your responses to:

Mr. William S. Titterington
Chief, Environmental Division
U.S. Army 89th Regional Readiness Command
3130 George Washington Blvd.
Wichita, KS 67210-1598

Please feel free to contact William Titterington at (316) 681-1759, extension 1469, e-mail-william.titterington@us.army.mil should you have any questions, concerns, would like additional information or be involved in the process.

We look forward to working cooperatively with you to make this important project successful for all parties involved.



JOHN A. FENILI
Facility Management Officer

Enclosures

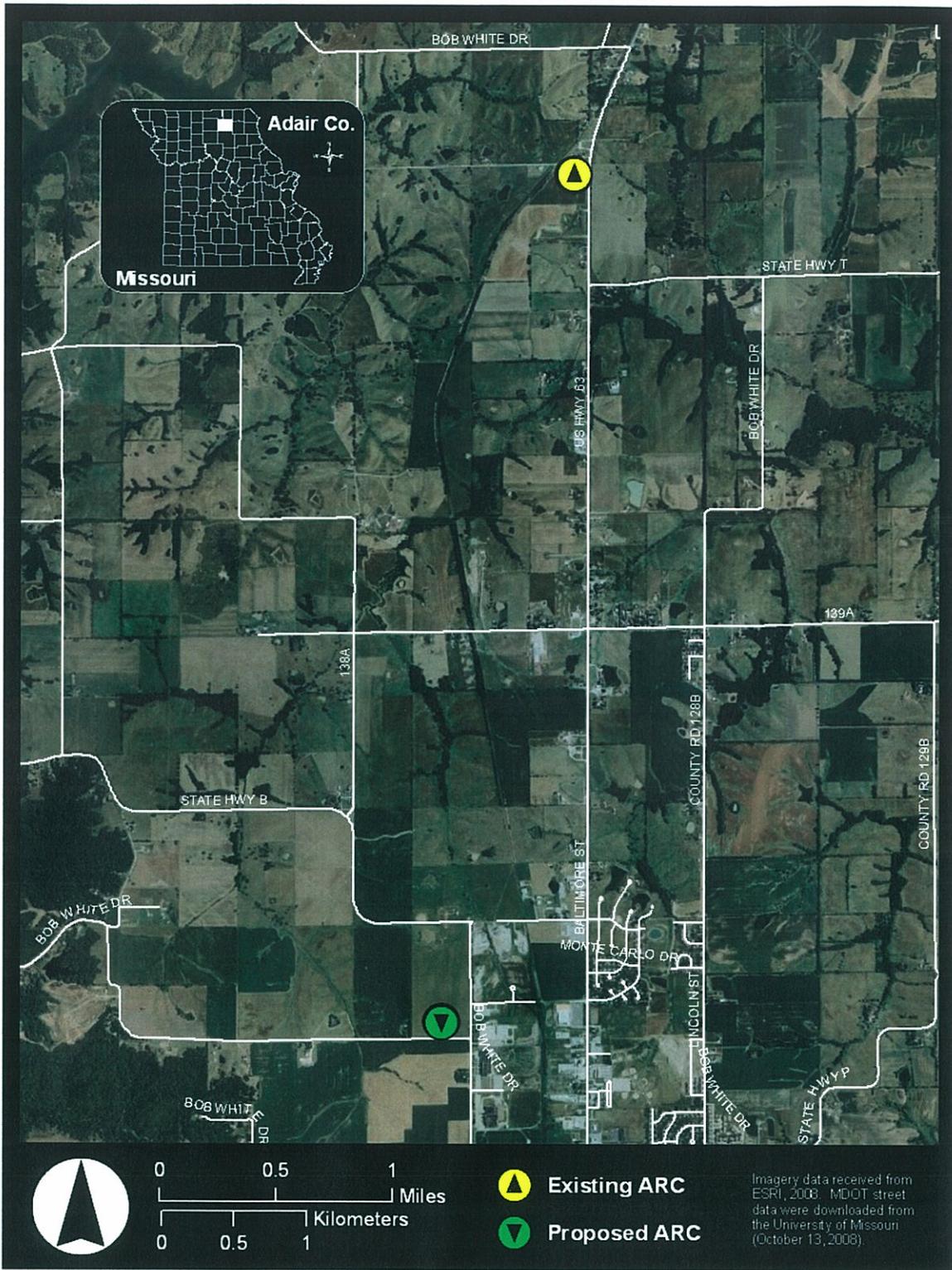


Figure 1. Regional Location Map. Kirksville, Missouri

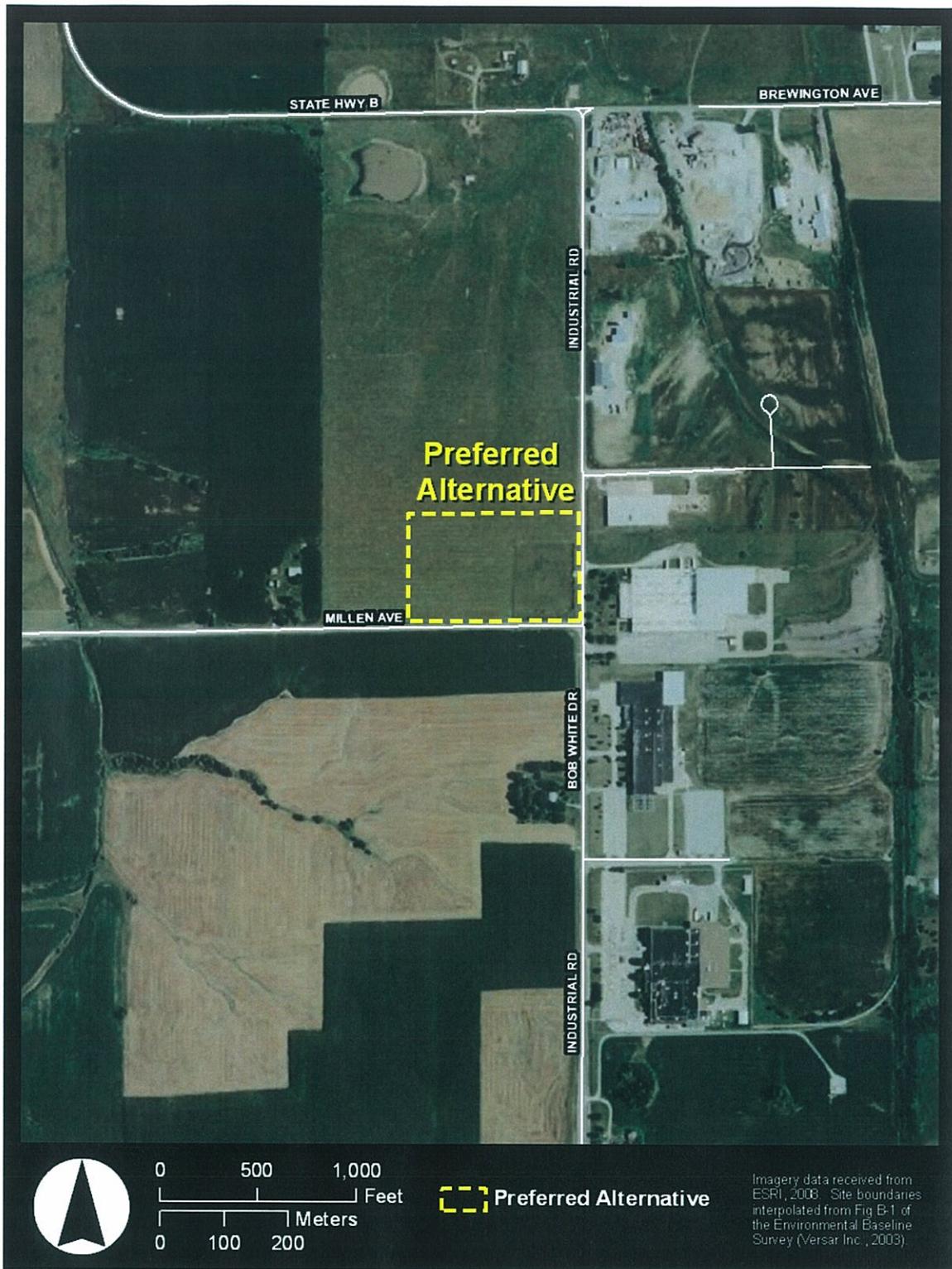


Figure 2. Preferred Alternative Location Map

Name	title	address1	address2	city	state	zip
Scott Miller	Governor	Absentee-Shawnee Tribe of Indians	2025 South Gordon Cooper Dr.	Shawnee	OK	74801
Henry Kostzuta	Chairman	Apache Tribe of Oklahoma	P.O. Box 1220	Anadarko	OK	73005
Anthony Addison	Chairperson	Arapaho Tribe of Wind River Reserv	P.O. Box 396	Ft Washakie	WY	82514
LaRue Parker	Chairman	Caddo Indian Tribe of Oklahoma	P.O. Box 487	Binger	OK	73009
Chad Smith	Principal Chief	Cherokee Nation of Oklahoma	P.O. Box 948	Tahlequah	OK	74465
Darrell Flyingman	Governor	Cheyenne & Arapahoe Tribes of OK	P.O. Box 38	Concho	OK	73022
Bill Anoatubby	Governor	Chickasaw Nation of Oklahoma	P.O. Box 1548	Ada	OK	74821
Gregory E. Pyle	Chief	Choctaw Nation of Oklahoma	Drawer 1210 16th & Locust	Durant	OK	74702
John A. Barrett, Jr.	Chairman	Citizen Potawatomi Nation	1601 S. Gordon Cooper Dr	Shawnee	OK	74801
Wallace Coffey	Chairperson	Comanche Tribal Business Comm	P.O. Box 908	Lawton	OK	73502
Joe Brooks	Chief	Delaware Nation	170 NE Barbara	Bartlesville	OK	74006
Edgar L. French	Chief	Delaware Tribe of Indians	P.O. Box 825	Andarko	OK	73005
Wilfrid Cleveland	Tribal President	Ho-Chunk Nation of Wisconsin	Box 667	Bl River Falls	WI	54615
Christie Modlin	Chairperson	Iowa Tribe of Oklahoma	RR 1, Box 721	Perkins	OK	74059
Louis Deroin	Chairman	Iowa Tribe of Kansas & NE	3345B Thrasher Rd.	White Cloud	KS	66094
Guy Monroe	Chairman/CEO	Kaw Nation	Drawer 50	Kaw City	OK	74641
Tony Salazar	Chairman	Kickapoo Tribe of Oklahoma	P.O. Box 70	McCloud	OK	74641
Juan Garza, Jr.	Chairman	Kickapoo Traditional Tribe of Texas	HC 1, Box 9700	Eagle Pass	TX	78852
Russell Bradley	Chairperson	Kickapoo of Kansas Tribal Council	1107 Goldfinch Rd.	Horton	KS	66439
Billy Evans Horse	Chairman	Kiowa Tribe of Oklahoma	P.O. Box 369	Carnegie	OK	73015
Floyd E. Leonard	Chief	Miami Tribe of Oklahoma	Box 1326	Miami	OK	74355
A.D. Ellis	Principal Chief	Muscogee (Creek) Nation of OK	P.O. Box 580	Okmulgee	OK	74447
Mr. Geri Small	President	Northern Cheyenne Tribal Council	P.O. Box 1283	Lame Deer	MT	59043
Eleanor Baxter	Chairman	Omaha Tribe of Nebraska	P.O. Box 368	Macy	NE	68039
Jim Gray	Principal Chief	Osage Tribal Council	P.O. Box 779	Pawhuska	OK	74056
Michael Harwell	Chairperson	Otoe-Missouria Tribe of Indians, OK	8151 Highway 77	Red Rock	OK	74651
John R. Ballard	Chief	Ottawa Tribe of Oklahoma	P.O. Box 110	Miami	OK	74355
John P. Froman	Chief	Peoria Tribe of Oklahoma	118 S. Eight Tribes Trail	Miami	OK	74355
Genevieve Pollak	Chairman	Ponca Tribe of Indians of Oklahoma	20 White Eagle Drive	Ponca City	OK	74601
Mark Peniska	Chairman	Ponca Tribe of Nebraska	P.O. Box 288	Niobrara	NE	68760
Dale Anderson	Chairman	Huron Potawatomi Nation	2221 - 1 1/2 Mile Road	Fulton	MI	49502
Harold Frank	Chairman	Forest Cnty Potawatomi Comm. Of WI	P.O. Box 340	Crandon	WI	54520
John A. Miller	Chairman	Pokagon Band of Potawatomi Indians	58620 Sink Rd.	Dowagiac	MI	49047
Trayce Stanhoff	Chairperson	Prairie Band of Potawatomi Tribal Coun	16281 Q Road	Mayetta	KS	66509
George E. Howell	President	Pawnee Nation of Oklahoma	P.O. Box 470	Pawnee	OK	74058
John Berrey	Chairman	Quapaw Tribe of Oklahoma	P.O. Box 765	Quapaw	OK	74363

Name	title	address1	address2	city	state	zip
Kay Rhoads	Chief	Sac & Fox Nation of Oklahoma	Rte 2, Box 246	Stroud	OK	74079
Homer Bear, Jr.	Chairperson	Sac & Fox Tribe of Mississippi in Iowa	349 Meskwaki Road	Tama	IA	52339
Sandra Keo	Chairperson	Sac & Fox Naton of Missouri	305 North Main	Reserve	KS	66434
Charles D. Enyart	Chief	Eastern Shawnee Tribe of Oklahoma	P.O. Box 350	Seneca	MO	64865
Michell Hicks	Chairman	Eastern Band of Cherokee Indians	P.O. Box 455	Cherokee	NC	28719
George Wickliffe	Chief	United Keetoowah Band of Cherokee	P.O. Box 746	Tahlequah	OK	74464
Lillie Strange	Chairperson	Jena Band of Choctaw Indians	P.O. Box 14	Jena	LA	71342
June Fixico	Chairperson	Kialegee Tribal Town of Creek Nation	2035 S Main Street	Wetumka	OK	74883
RogerTrudell	Chairman	Santee Sioux Tribal Council	108 Spirit Lake Ave W	Niobrara	NE	68760
Enoch Kelly Haney	Principal Chief	Seminole Nation of Oklahoma	P.O. Box 1498	Wewoka	OK	74884
James E. Billie	Chairman	Seminole Tribe of Florida	6300 Stirling Road	Hollywood	FL	33024
Terry Whitetree	Chief	Seneca-Cayuga Tribe of OK	P.O. Box 1283	Miami	OK	74355
Robert Chicks	President	Stockbridge-Munsee Tribe	N8705 Moh-He-Con-Nuck Rd	Bowler	WI	54416
Anthony Street	President	Tonkawa Tribe of Indians of Oklahoma	P.O. Box 70	Tonkawa	OK	74653
Gary McAdams	President	Wichita & Affiliated Tribes	P.O. Box 729	Anadarko	OK	73005
John Blackhawk	Chairman	Winnebago Tribal Council	P.O. Box 687	Winnebago	NE	68071
Leaford Bearskin	Chief	Wyandotte Tribe	P.O. Box 250	Wyandotte	OK	74370



TONKAWA TRIBE OF OKLAHOMA
TONKAWA TRIBAL COUNCIL

• 1 RUSH BUFFALO ROAD, TONKAWA, OKLAHOMA 74653 •
• PHONE (580) 628-2561 • FAX: (580) 628-3375 •
WEB SITE: www.tonkawatribe.com

Mr. William S. Titterington
Chief, Environmental Division
U.S. Army 89th Regional Readiness Command
3130 George Washington Blvd.
Wichita, KS 67210-1598

Date: January 12, 2009

Dear Mr. William S. Titterington:

In response to the letter from your office dated December 3rd, 2008 regarding potential environmental impacts to cultural resources that may result from the construction of an Army Reserve Center, we submit the following: The Tonkawa Tribe has no specifically designated historical or cultural sites identified in the above listed project area. However if any human remains, funerary objects, or other evidence of historical or cultural significance is inadvertently discovered then the Tonkawa Tribe would certainly be interested in proper disposition thereof.

We appreciate notification by your office of the many projects on-going, and as always the Tonkawa Tribe is willing to work with your representatives in any manner to uphold the provisions of NAGPRA to the extent of our capability.

Respectfully,


NAGPRA Representative



Concurrence:

Tonkawa Tribe Business Committee



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY 89TH REGIONAL READINESS COMMAND
3130 GEORGE WASHINGTON BOULEVARD
WICHITA, KANSAS 67210-1598

REPLY TO
ATTENTION OF:

March 12, 2009

Mr. Richard Pemberton
District Conservationist
Natural Resources Conservation Service
Kirksville Service Center
2410 Franklin St.
Kirksville, MO 63501-4616

RE: Environmental Assessment - Courtesy Notification
U.S. Army Reserve - Proposed Military Construction Project
Kirksville, Missouri

Dear Mr. Pemberton :

The Assistant Chief of Staff Installation Management, Operations Directorate Reserve Division and the U.S. Army Reserve, Environmental Branch, are preparing an Environmental Assessment (EA) for construction of a new facility located in Kirksville, Missouri as part of the restructuring of military bases as required by the Defense Closure and Realignment Act (as amended) (BRAC).

The proposed action includes the construction of an Army Reserve Center, which includes a training building, an unheated storage facility, and organizational parking to accommodate the training of US Army Reserve Soldiers. Two U.S. Army Reserve units will relocate to this location from the existing Army Reserve Center in Greentop, Missouri. A regional location map and an aerial photograph depicting the soil survey of the proposed project are included as Figures 1 and 2. The proposed project is located in Section 32, Township 63 North, Range 15 West.

Soils mapped on the Preferred Alternative site include Putnam silt loam, 0 to 1 percent slopes (50012); Adco silt loam, 1 to 3 percent slopes (50013); and Leonard silty clay loam, 2 to 6 percent slopes, eroded (60270). Leonard silty clay loam soils are rated as "Prime Farmland if drained". Armstrong series soils are rated as "Farmland of statewide importance". A portion of the property that is privately owned is zoned Light Industrial and the other portion of the property is already owned by the Army Reserve (former training area for the 89th RRC medical unit). Lands already in use for national defense purposes are considered urbanized, and therefore are exempted from the Farmland Protection Policy Act (FPPA) under that provision. Due to the current designation of these properties, the proposed action is exempt from the FPPA. The purpose of this letter is to notify the NRCS that if the project is constructed, approximately 1-acre of prime farmland soils will be capped with impervious surfaces and thus removed from farmland capabilities.

Please feel free to contact William Titterington at (316) 681-1759, extension 1469, or e-mail william.titterington@us.army.mil should you have any questions, concerns, or would like additional information.



JOHN A. FENILI
Facility Management Officer

Enclosures

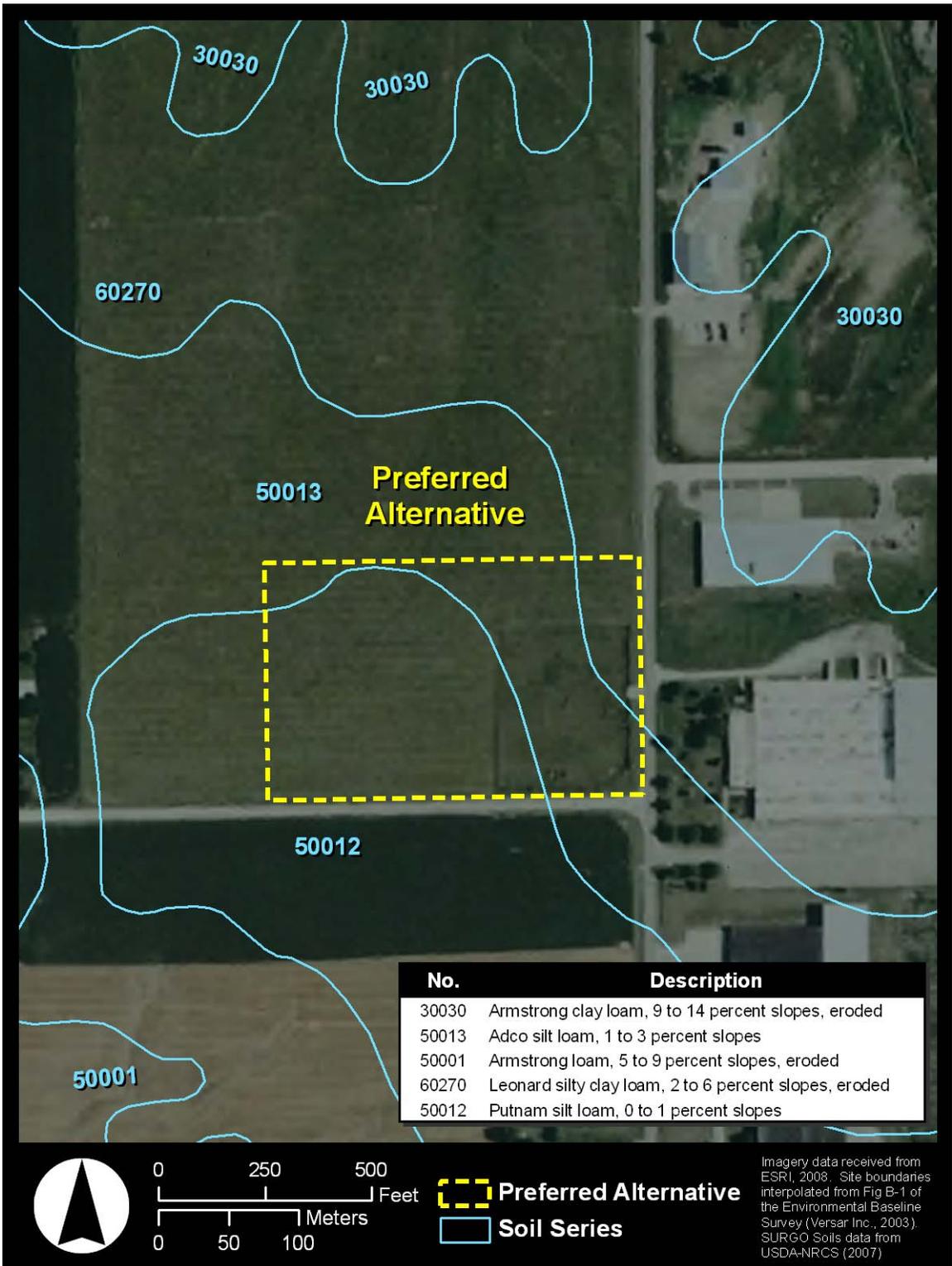


Figure 2. Mapped Soils of the Preferred Alternative

**Appendix E
EIFS Model**

Economic Impact Forecast System

US Army Corps of Engineers
Mobile District

EIFS REPORT

PROJECT NAME

Kirksville

STUDY AREA

29001 Adair, MO

FORECAST INPUT

Change In Local Expenditures	\$7,900,000
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 Militart Living On-post	0

FORECAST OUTPUT

Employment Multiplier	2.25
Income Multiplier	2.25
Sales Volume - Direct	\$4,388,888
Sales Volume - Induced	\$5,486,112
Sales Volume - Total	\$9,875,000 1.42%
Income - Direct	\$863,838
Income - Induced)	\$1,079,797
Income - Total(place of work)	\$1,943,634 0.43%
Employment - Direct	27
Employment - Induced	34
Employment - Total	61 0.38%
Local Population	0
Local Off-base Population	0 0%

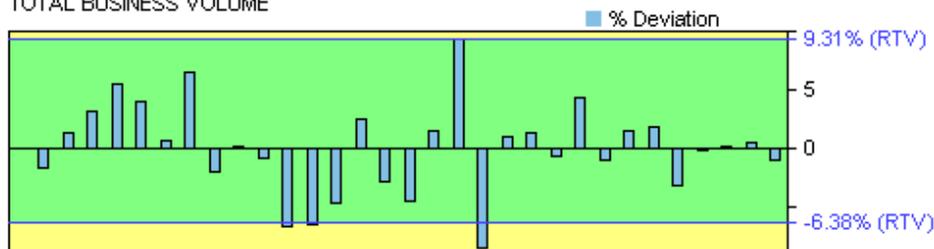
RTV SUMMARY

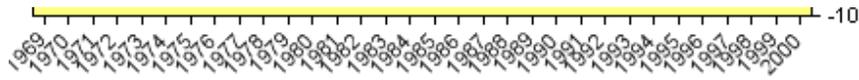
	Sales Volume	Income	Employment	Population
Positive RTV	9.31 %	9.21 %	6.84 %	4.24 %
Negative RTV	-6.38 %	-7.5 %	-2.71 %	-1.3 %

RTV DETAILED

SALES VOLUME

TOTAL BUSINESS VOLUME



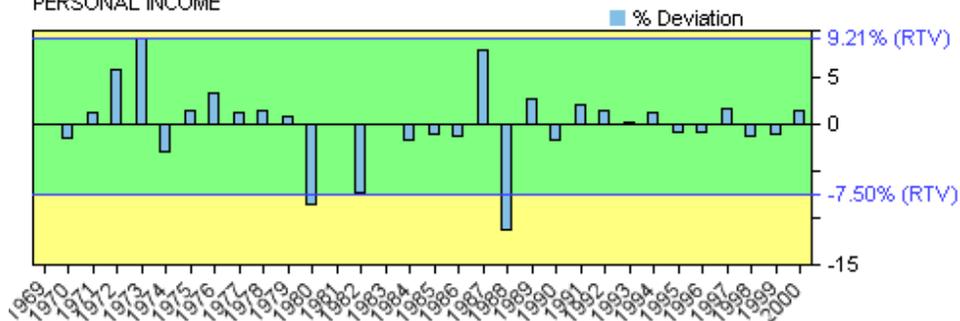


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Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	41523	181456	0	0	0
1970	44191	182509	1053	-3134	-1.72
1971	47779	189205	6696	2509	1.33
1972	52108	199574	10369	6182	3.1
1973	59726	215611	16037	11850	5.5
1974	70422	228872	13261	9074	3.96
1975	78757	234696	5824	1637	0.7
1976	90586	255453	20757	16570	6.49
1977	96367	254409	-1044	-5231	-2.06
1978	105378	259230	4821	634	0.24
1979	118237	261304	2074	-2113	-0.81
1980	128206	248720	-12584	-16771	-6.74
1981	135002	237604	-11116	-15303	-6.44
1982	139126	230949	-6654	-10841	-4.69
1983	149870	241291	10342	6155	2.55
1984	155091	238840	-2451	-6638	-2.78
1985	156075	232552	-6288	-10475	-4.5
1986	164513	240189	7637	3450	1.44
1987	173849	269466	29277	25090	9.31
1988	185431	252186	-17280	-21467	-8.51
1989	200763	258984	6798	2611	1.01
1990	217015	266928	7944	3757	1.41
1991	228151	269218	2290	-1897	-0.7
1992	250615	285701	16483	12296	4.3
1993	258545	286985	1284	-2903	-1.01
1994	273558	295443	8458	4271	1.45
1995	290605	305135	9693	5506	1.8
1996	294087	299969	-5167	-9354	-3.12
1997	303859	303859	3890	-297	-0.1
1998	314813	308517	4658	471	0.15
1999	327551	314449	5932	1745	0.56
2000	339197	315453	1004	-3183	-1.01

INCOME

PERSONAL INCOME

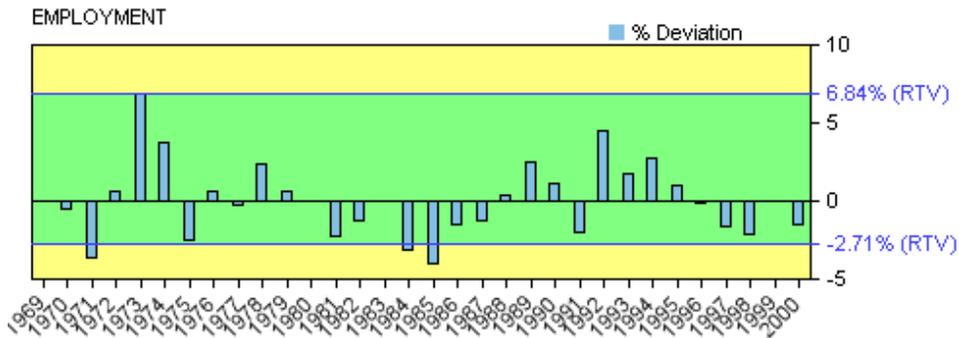


created with ChartDirector from www.advsofteng.com

Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	56247	245799	0	0	0
1970	60329	249159	3359	-3615	-1.45
1971	65560	250618	10450	2485	1.24

1971	65500	259010	10459	5405	1.54
1972	73997	283409	23791	16817	5.93
1973	88600	319846	36437	29463	9.21
1974	97692	317499	-2347	-9321	-2.94
1975	110575	329514	12015	5041	1.53
1976	123340	347819	18305	11331	3.26
1977	135978	358982	11163	4189	1.17
1978	150983	371418	12436	5462	1.47
1979	172612	381473	10054	3080	0.81
1980	184607	358138	-23335	-30309	-8.46
1981	207295	364839	6702	-272	-0.07
1982	208967	346885	-17954	-24928	-7.19
1983	219862	353978	7093	119	0.03
1984	230443	354882	904	-6070	-1.71
1985	240222	357931	3049	-3925	-1.1
1986	246742	360243	2313	-4661	-1.29
1987	257182	398632	38389	31415	7.88
1988	268192	364741	-33891	-40865	-11.2
1989	296451	382422	17681	10707	2.8
1990	311389	383008	587	-6387	-1.67
1991	337391	398121	15113	8139	2.04
1992	360379	410832	12711	5737	1.4
1993	376831	418282	7450	476	0.11
1994	399070	430996	12713	5739	1.33
1995	413518	434194	3198	-3776	-0.87
1996	428614	437186	2992	-3982	-0.91
1997	452017	452017	14831	7857	1.74
1998	462404	453156	1139	-5835	-1.29
1999	474608	455624	2468	-4506	-0.99
2000	504280	468980	13357	6383	1.36

EMPLOYMENT

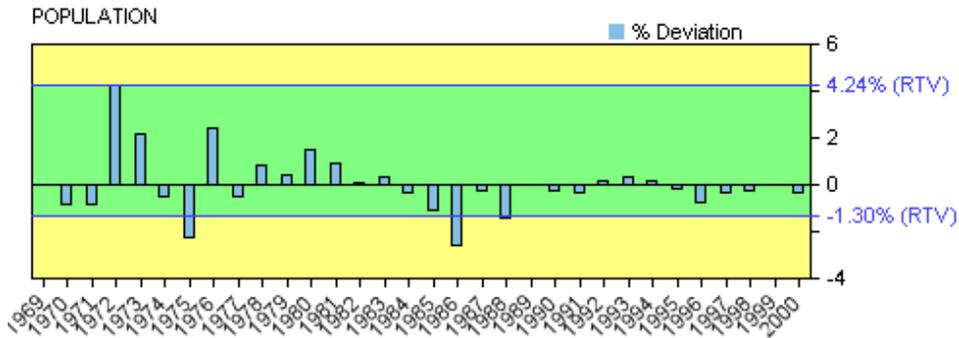


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Year	Value	Change	Deviation	%Deviation
1969	9777	0	0	0
1970	9920	143	-55	-0.55
1971	9768	-152	-350	-3.58
1972	10024	256	58	0.58
1973	10972	948	750	6.84
1974	11611	639	441	3.8
1975	11524	-87	-285	-2.47
1976	11789	265	67	0.57
1977	11958	169	-29	-0.24

1978	12455	497	299	2.4
1979	12739	284	86	0.68
1980	12942	203	5	0.04
1981	12844	-98	-296	-2.3
1982	12879	35	-163	-1.27
1983	13075	196	-2	-0.02
1984	12875	-200	-398	-3.09
1985	12565	-310	-508	-4.04
1986	12571	6	-192	-1.53
1987	12608	37	-161	-1.28
1988	12859	251	53	0.41
1989	13394	535	337	2.52
1990	13745	351	153	1.11
1991	13671	-74	-272	-1.99
1992	14526	855	657	4.52
1993	14980	454	256	1.71
1994	15617	637	439	2.81
1995	15982	365	167	1.04
1996	16167	185	-13	-0.08
1997	16095	-72	-270	-1.68
1998	15960	-135	-333	-2.09
1999	16152	192	-6	-0.04
2000	16107	-45	-243	-1.51

POPULATION



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Year	Value	Change	Deviation	%Deviation
1969	22534	0	0	0
1970	22413	-121	-196	-0.87
1971	22294	-119	-194	-0.87
1972	23360	1066	991	4.24
1973	23945	585	510	2.13
1974	23893	-52	-127	-0.53
1975	23438	-455	-530	-2.26
1976	24099	661	586	2.43
1977	24055	-44	-119	-0.49
1978	24333	278	203	0.83
1979	24500	167	92	0.38
1980	24957	457	382	1.53
1981	25257	300	225	0.89
1982	25361	104	29	0.11
1983	25527	166	91	0.36
1984	25516	-11	-86	-0.34

1985	25314	-202	-277	-1.09
1986	24744	-570	-645	-2.61
1987	24766	22	-53	-0.21
1988	24489	-277	-352	-1.44
1989	24567	78	3	0.01
1990	24584	17	-58	-0.24
1991	24574	-10	-85	-0.35
1992	24690	116	41	0.17
1993	24844	154	79	0.32
1994	24959	115	40	0.16
1995	24998	39	-36	-0.14
1996	24883	-115	-190	-0.76
1997	24871	-12	-87	-0.35
1998	24887	16	-59	-0.24
1999	24961	74	-1	0
2000	24947	-14	-89	-0.36

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

**Appendix F
RONA**

RECORD OF NON-APPLICABILITY
In Accordance with the Clean Air Act-General Conformity Rule for the
Proposed Construction and Operation
of a United States Army Reserve Center in Kirksville, Missouri

The Army proposes to construct and operate a U.S. Army Reserve Center (USARC) in Kirksville, Missouri. Primary facilities include a USARC building that includes organizational unit storage. Building will be of permanent construction with heating, ventilation, air conditioning; plumbing; mechanical; security; and electrical systems. Supporting facilities include land clearing, paving, fencing, general site improvements, and extension of utilities to serve the project. Force-protection (physical security) measures will be incorporated into the facility's design, to include consideration of stand-off distance from roads, parking areas, and vehicle unloading areas. The proposed USARC will provide training to Army Reserve Soldiers to attain military education and proficiency.

General Conformity under the Clean Air Act, section 176 has been evaluated according to the requirements of Title 40 of the *Code of Federal Regulations* Part 93, Subpart B. The requirements of this rule are not applicable to the proposed action or the alternatives because

All activities associated with the proposed action and alternatives are in an area designated by the U.S. Environmental Protection Agency to be in attainment for all criteria pollutants.

Supported documentation and emission estimates:

- Are Attached
- Appear in the NEPA Documentation
- Other (Not Necessary)

William S. Titterington 30 MAR 09
Date
William S. Titterington, REM
Environmental Division Chief
89th Regional Readiness Command

