

**FINAL**

**ENVIRONMENTAL ASSESSMENT  
FOR CONSTRUCTION OF AN  
ARMED FORCES RESERVE CENTER AND IMPLEMENTATION OF BRAC 05  
RECOMMENDATIONS AT  
COLUMBUS, NEBRASKA**



**Prepared for:**

**Nebraska Army National Guard  
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**and**

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**June 2009**

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**FINDING OF NO SIGNIFICANT IMPACT  
FOR THE  
CONSTRUCTION ON AN ARMED FORCES RESERVE CENTER  
AND  
IMPLEMENTATION OF THE BRAC 05 RECOMMENDATIONS  
AT  
COLUMBUS, NEBRASKA**

**INTRODUCTION**

The Nebraska Army National Guard (NEARNG) prepared an Environmental Assessment (EA) to identify and evaluate potential environmental effects from the restructuring of military bases recommended by the Defense Base Closure and Realignment Act. The NEARNG prepared the EA in accordance with the National Environmental Policy Act (NEPA, 42 USC § 4321 to 4370e), the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (CEQ Regulations, 40 CFR Parts 1500-1508), and *Environmental Analysis of Army Actions* (32 CFR 651). The Defense Base Closure and Realignment Commission (BRAC Commission) made the following recommendations concerning Columbus, Nebraska.

*“Close the United States Army Reserve Center in Columbus, NE and relocate units to a new Armed Forces Reserve Center in Columbus, NE, if the Army is able to acquire suitable land for the construction of the facilities. The new AFRC shall have the capability to accommodate Nebraska National Guard Units from the Nebraska ARNG Readiness Center, Columbus, NE, if the state decides to relocate those National Guard units.”*

**1. Description of Proposed Action and Alternatives**

**Proposed Action.** The Proposed Action is the NEARNG’s Preferred Alternative. The Proposed Action consists of the construction and operation of an AFRC. To implement Base Realignment and Closure (BRAC) recommendations, the NEARNG proposed to construct a new AFRC and related facilities at a site in Columbus, Nebraska. The Army’s Preferred Alternative is to construct the AFRC and associate facilities North of East 23<sup>rd</sup> Street, approximately 0.25 miles east of the intersection of East 23<sup>rd</sup> Street and East 14<sup>th</sup> Avenue, approximately 3.25 miles east of Columbus, Nebraska. The Proposed Action includes construction and future use of an AFRC. The AFRC would provide administrative, educational, assembly, kitchen, library, learning center, vault, weapons simulator, maintenance training bays, and physical fitness areas for one NEARNG unit and 10 United States Army Reserve (USAR) units. Activities at the AFRC will be training-related, with no weapons firing. The facility would employ approximately 1 permanent full-time personnel, and would serve about 132 personnel on a rotating basis, mostly on weekends.

**Alternatives Considered.** In addition to the Proposed Action, the NEARNG analyzed a No Action alternative. Under the No Action alternative, the proposed AFRC would not be constructed to accommodate the BRAC recommendations. The NEARNG and USAR units would continue to train at and operate from their current locations which are over-utilized and not properly configured to allow the most effective training of personnel to complete mission requirements. Council on Environmental Quality regulations require analysis of the No Action alternative, for it serves as the baseline against which the impacts of the Proposed Action can be evaluated.

## **2. Environmental Analysis**

Based on the analysis contained in the EA, the NEARNG has determined that the construction and operation of the AFRC will not have any significant adverse impacts on the human or natural environments.

**Mitigation.** Mitigation measures are actions required for the specific purpose of reducing the significant environmental impacts of implementing a proposed or alternative action. An EA may specify mitigation measures that, if implemented, would prevent significant impacts that would otherwise require an Environmental Impact Statement. No mitigation measures are required for the Proposed Action discussed in this EA because resulting impacts would not meet the significance criteria described for each resource in Section 5.0; that is, the impacts would not be significant. Additionally, Best Management Practices where applicable for each affected resource, would be initiated to minimize impacts.

## **3. Regulations**

The Proposed Action will not violate NEPA, the CEQ Regulations, 32 CFR 651, or any other Federal, state, or local environmental regulations.

## **4. Commitment to Implementation**

The National Guard Bureau (NGB) and NEARNG affirm their commitment to implement this EA in accordance with NEPA. Implementation is dependent on funding. The NEARNG and the NGB's Environmental Programs, Training, and Installations Divisions will ensure that adequate funds are requested in future years' budgets to achieve the goals and objectives set forth in this EA.

## **5. Public Review and Comment**

The final EA and d Finding of No Significant Impact (FNSI) were made available for public review and comment from 15 July through 15 August, 2009 at locations listed in the public notices. No comments were received. For further information, contact The Office of the Adjutant General, ATTN: Environmental Office (Dustin Huenink), 1300 Military Road, Lincoln, Nebraska 68508-1090, (402) 309-7469.

## 6. Finding of No Significant Impact

After careful review of the EA, I have concluded that implementation of the Proposed Action would not generate significant controversy or have a significant impact on the quality of the human or natural environment. This analysis fulfills the requirements of NEPA and the CEQ Regulations. An Environmental Impact Statement will not be prepared, and the National Guard Bureau is issuing this Finding of No Significant Impact.

26 Aug 09  
Date

Michel J. Bennett  
MICHEL J. BENNETT  
COL, NGB  
Chief, Environmental  
Programs Division

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## ENVIRONMENTAL ASSESSMENT

LEAD AGENCY: National Guard Bureau (NGB)

COOPERATING AGENCIES: None

TITLE OF PROPOSED ACTION: Construction of an Armed Forces Reserve Center (AFRC) and Implementation of BRAC 05 Recommendations at Columbus, Nebraska

AFFECTED JURISDICTION: Columbus, Platte County, Nebraska

POINT OF CONTACT: Mr. Dustin Huenink at (402) 309-7469 or  
[Dustin.M.Huenink@us.army.mil](mailto:Dustin.M.Huenink@us.army.mil)  
CFMO Environmental, Nebraska

PROPOSERS: Nebraska Army National Guard (NEARNG)

APPROVED BY: Approval by Major General Timothy J. Kadavy is pending.

DOCUMENT DESIGNATION: Draft Environmental Assessment

### ABSTRACT:

The NGB and NEARNG are preparing environmental documentation for the proposed AFRC at Columbus, Nebraska as part of the restructuring of military bases recommended by the Defense Base Closure and Realignment Act. This Environmental Assessment (EA) addresses the potential environmental, socioeconomic, and cultural impacts of this proposal and its alternatives. The Proposed Action is necessary to support the NEARNG, Federal, state, and community missions. The proposed AFRC building would provide training for one NEARNG unit and 10 U.S. Army Reserve (USAR) units. The facility would employ approximately one permanent full-time personnel and would serve about 132 personnel on a rotating basis, mostly on weekends.

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

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

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## EXECUTIVE SUMMARY

### **Environmental Assessment for the Construction of an Armed Forces Reserve Center in Columbus, Nebraska**

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

#### **OVERVIEW OF PROJECT PURPOSE AND NEED**

The Proposed Action is necessary to support the Nebraska Army National Guard (NEARNG), Federal, state, and community missions. The AFRC would provide administrative, educational, assembly, kitchen, library, learning center, vault, weapons simulator, maintenance training bays, and physical fitness areas for one NEARNG unit and ten U.S. Army Reserve (USAR) units. The NEARNG unit to be housed at this facility is the 1075<sup>th</sup> Transportation Company. USAR units to be housed at this facility are 45<sup>th</sup> TM HQ; 45<sup>th</sup> SEC OP; 45<sup>th</sup> TM DESK; 45<sup>th</sup> TM 1 TFC ACC INVES; 45<sup>th</sup> TM 2 TFC ACC INVES; 45<sup>th</sup> TM 3 TFC ACC INVES; 45<sup>th</sup> TM 4 TFC ACC INVES; 45<sup>th</sup> TM 5 TFC ACC INVES; 45<sup>th</sup> TM 1 INVES; and 45<sup>th</sup> TM 2 INVES. The facility would employ approximately one permanent full-time personnel and would serve about 132 personnel on a rotating basis, mostly on weekends. The maximum expected use of the new facility would be about 87 members per weekend, and there would be parking for 90 privately-owned vehicles (90 percent of the authorized strength of the assigned units required to train simultaneously, including tenants). On training weekends, reservists would either commute to the AFRC or stay in local hotels.

#### **OVERVIEW OF CONSIDERED PROJECT ALTERNATIVES**

This EA evaluates the individual and cumulative impacts of the Preferred Alternative (construction and operation of the Columbus AFRC; the Proposed Action) and the No Action Alternative with respect to the following criteria: geographic setting and land use, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomic environment, environmental justice, infrastructure, and hazardous and toxic substances. Under the Preferred Alternative, activities would include land use alterations on an approximate 33-acre parcel of land referred to as the Johannes Parcel. In addition to the proposed 46,971-square-foot AFRC training building,

the project would include construction of a 100-square-foot flammable materials facility, a 300-square-foot controlled waste facility, 2,048-square-foot maintenance training workbays, and 2,700-square-foot heated storage.

Activities at the AFRC would be training-related, with no weapons firing. There would be no firing range or weapons qualification testing or training. Maintenance training workbays would be used to perform training for vehicle maintenance functions. The anticipated stored waste includes used oil or other vehicle fluids that would be changed during operator maintenance activities. Examples of maintenance activities include checking tire pressure, checking and adding vehicle fluids, and changing tires.

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

### **OVERVIEW OF ENVIRONMENTAL CONSEQUENCES**

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

The Proposed Action would cause long-term impacts to land use, visual resources, soils, and hazardous and toxic substances. The land would no longer be used for agriculture; however, this change is compatible with the existing zoning and the surrounding land use. Therefore, viewers would likely be less sensitive to the visual impact of the new AFRC. Site improvements would result in additional impervious surfaces; however, impact on regional infiltration would not be significant. Use of hazardous materials and generation of hazardous wastes would be minimal and likely limited to cleaning products, paint, and adhesives. Infrastructure is available to support the Proposed Action and the new AFRC would be built to Leadership in Energy and Environmental Design Silver standards to promote energy efficiency and reduce operational maintenance costs throughout the life of the AFRC. No impacts would occur to cultural resources as no such resources are located at or near the site.

### **CONCLUSION**

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

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## LIST OF ACRONYMS

°F	degrees Fahrenheit
µg/m <sup>3</sup>	microgram(s) per cubic meter
AFRC	Armed Forces Reserve Center
AIRFA	American Indian Religious Freedom Act
ARNG	Army National Guard
ARPA	Archaeological Resources Protection Act
AST	aboveground storage tank
ASTM	American Society of Testing and Materials
ATFP	Anti-terrorism/Force Protection
BMP	best management practice
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CWA	Clean Water Act
dB	decibels
dba	A-weighted decibel(s)
DHHS	Department of Health and Human Services
DoD	U.S. Department of Defense
DoDI	U.S. Department of Defense Instruction
EA	Environmental Assessment
EIFS	Economic Impact Forecast System
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FNSI	Finding of No Significant Impact
GPD	gallons per day
GPM	gallons per minute
HVAC	heating, ventilation, and air conditioning
IBC	International Building Code
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
LEED	Leadership in Energy and Environmental Design
LUST	leaking underground storage tank
MSL	mean sea level
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NDNR	Nebraska Department of Natural Resources

**LIST OF ACRONYMS (continued)**

NDOR	Nebraska Department of Roads
NEARNG	Nebraska Army National Guard
NEPA	National Environmental Policy Act
NGB	National Guard Bureau
NGPC	Nebraska Game and Parks Commission
NHPA	National Historic Preservation Act
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O <sub>3</sub>	ozone
OWS	oil/water separator
Pb	lead
pCi/L	picocuries per liter
PM <sub>10</sub>	particulate matter with an aerodynamic size less than or equal to 10 microns
PM <sub>2.5</sub>	particulate matter with an aerodynamic size less than or equal to 2.5 microns
ppm	parts per million
PSD	Prevention of Significant Deterioration
psi	pounds per square inch
RCRA	Resource Conservation and Recovery Act
ROI	region of influence
RTV	rational threshold value
SARA	Superfund Amendments and Reauthorization Act
SO <sub>2</sub>	sulfur dioxide
SWPPP	Storm Water Pollution Prevention Plan
tpy	ton(s) per year
TSCA	Toxic Substance Control Act
USACE	U.S. Army Corps of Engineers
USAR	U.S. Army Reserve
U.S.C.	U.S. Code
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank
VOC	volatile organic compound

## **1.0 PURPOSE, NEED AND SCOPE**

### **1.1 Introduction**

On September 8, 2005, the Defense Base Closure and Realignment Commission (BRAC Commission) recommended that certain realignment actions occur at Columbus, Nebraska. 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 recommendations concerning Columbus, Nebraska:

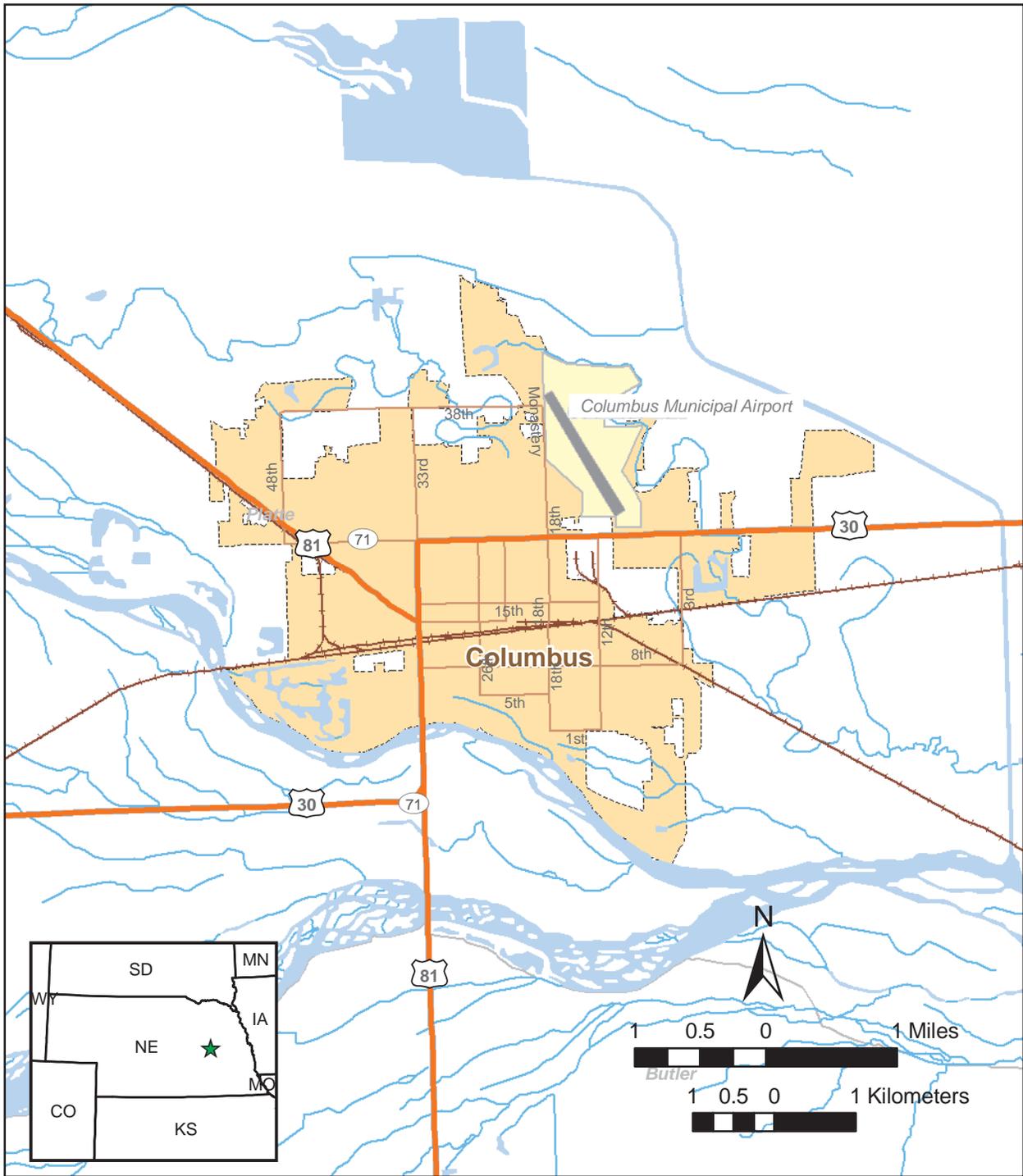
*“Close the United States Army Reserve Center in Columbus, NE, and relocate units to a new Armed Forces Reserve Center in Columbus, NE. The new AFRC shall have the capability to accommodate Nebraska National Guard Units from the Nebraska ARNG Readiness Center, Columbus, NE, if the state decides to relocate those National Guard units.”*

To implement these recommendations, the U.S. Army National Guard (ARNG) proposes to construct a new Armed Forces Reserve Center (AFRC) and related facilities at a site in Columbus, Nebraska to support the changes in force structure. This Environmental Assessment (EA) analyzes the potential environmental impacts associated with the ARNG's Proposed Action at Columbus, Nebraska. Figure 1-1 shows the location of Columbus, Nebraska. Details on the Proposed Action are provided in Section 2.0.

### **1.2 Purpose and Need**

The purpose of the Proposed Action is to provide a new AFRC in Columbus, Nebraska as directed by the BRAC Commission's recommendations. The AFRC is needed to ensure that adequate training and administrative space is available to support reserve units realigned from area facilities.

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's mission is to defend the United States and its territories, support national policies and objectives, and defeat nations and other parties responsible for aggression that endangers the peace and security of the United States. To carry out these tasks, the Army must adapt to changing world conditions and must improve its capabilities to respond to a variety of circumstances across the full spectrum of military operations. The Nebraska Army National Guard (NEARNG) is a dual-mission organization under the control of the Federal government [U.S. Department of Defense (DoD)] and the state of Nebraska (Governor). The Federal mission is to serve as an integral component of the Total Army by providing fully-manned, operationally ready, and well-equipped units that can respond to any national contingency such as war, peacekeeping missions, or nation building operations. The



Legend

- Columbus city limits
- Rivers

NOTE: City limits for Columbus will be revised for the Draft Environmental Assessment.

Prepared For:

U.S Army Corps of Engineers, Mobile District

Figure 1-1

Columbus, Nebraska Location Map



NEARNG's state mission is to provide trained and equipped organizations to protect life and property; preserve peace, order, public safety; and support national defense. The NEARNG performs this mission in concert with its stewardship responsibility to protect and conserve the environment.

The following paragraphs discuss the major initiatives that contribute to the Army's need for the Proposed Action in Columbus, Nebraska.

***Base Realignment and Closure.*** In previous rounds of BRAC, the explicit goal was to save money and downsize the military to reap a "peace dividend." In the 2005 BRAC round, 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 in Columbus, Nebraska to achieve the objectives for which Congress established the BRAC process.

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

### 1.3 Scope

This EA was developed in accordance with the *National Environmental Policy Act* (NEPA) (42 U.S. Code [U.S.C.] § 4321 et seq.); implementing regulations issued by the President's Council on Environmental Quality (CEQ), 40 Code of Federal Regulations (CFR) Parts 1500-1508; *Environmental Analysis of Army Actions*, 32 CFR Part 651; and the National Guard Bureau (NGB) NEPA Handbook. 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 impacts of the proposed realignment in Columbus, Nebraska. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, historians, and military technicians analyzed the Proposed Action and alternatives in light of existing conditions and identified relevant beneficial and adverse impacts associated with the actions. The Proposed Action is described in Section 2.0 and the alternatives are described in Section 3.0. Conditions considered the "environmental baseline" conditions are described in Section 4.0, Affected Environment. The expected impacts of the Proposed Action are described in Section 5.0, Environmental Consequences, for each resource addressed in the EA. Section 5.0 also addresses the potential for cumulative impacts, and mitigation measures are identified where appropriate. Section 6.0 provides conclusions summarizing the magnitude of expected impacts, and identifies the environmentally preferred alternative. References cited in this document are provided in

Section 7.0, the list of preparers of this EA is presented in Section 8.0, and the agencies and individuals consulted are presented in Section 9.0.

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 Decision to be Made**

The decision to be made is how NEARNG will implement the BRAC recommendations in Columbus, Nebraska and, as appropriate, carry out mitigation measures that would reduce impacts on resources. The decision on how to implement the realignment will be based on strategic, operational, environmental, and other considerations, including the results of this analysis.

## **1.5 Public Involvement**

### **1.5.1 PUBLIC INVOLVEMENT/SCOPING**

The NEARNG and the NGB invite 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 651.14. Upon completion of this EA, the Notice of Availability will be published in a local newspaper, the *Columbus Telegram*, and a regional newspaper, *Omaha World-Herald*. At that point, the EA will be made available to the public for 30 days, along with a draft Finding of No Significant Impact (FNSI) at the Columbus Public Library, in Columbus, Nebraska and on the BRAC website at [http://www.hqda.army.mil/acsim/brac/env\\_ea\\_review.htm](http://www.hqda.army.mil/acsim/brac/env_ea_review.htm). At the end of the 30-day public review period, the NEARNG and NGB will consider all comments submitted by individuals, agencies, and organizations on the Proposed Action, the EA, and draft FNSI. As appropriate, the NEARNG and NGB may then execute the FNSI and proceed with implementation of the Proposed Action. If it is determined prior to issuance

of a final FNSI that implementation of the Proposed Action would result in significant impacts, the NEARNG will publish in the *Federal Register* a notice of intent to prepare an environmental impact statement, commit to mitigation actions sufficient to reduce impacts below significance levels, or not take the action.

The public may obtain information on the status and progress of the Proposed Action and the EA through the NEARNG by contacting Mr. Dustin Huenink at 402-309-7469 or [dustin.m.huenink@us.army.mil](mailto:dustin.m.huenink@us.army.mil).

### **1.5.2 AGENCY PARTICIPATION**

In conjunction with the preparation of this EA, and to comply with NEPA, written correspondence has been sent to Federal, state, and local agencies with jurisdictions that could possibly be affected by the proposal. This coordination fulfills requirements under Executive Order (EO) 12372 (superseded by EO 12416, and subsequently supplemented by EO 13132), which requires Federal agencies to cooperate with and consider state and local views in implementing a Federal proposal. It also constitutes the Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) process for this EA.

Section 9.0 contains a list of agencies contacted regarding the Proposed Action and any sensitive resources at or near the proposed AFRC in Columbus, Nebraska. These agencies include, but are not limited to, the U.S. Fish and Wildlife Service (USFWS); Natural Resources Conservation Service (NRCS); Nebraska Department of Natural Resources (NDNR); and the Nebraska State Historic Preservation Office. Data on local species of special concern, threatened and endangered species, soils, water resources, and other data pertinent to environmental resources in Columbus, Nebraska were requested. These data were used in developing this EA. Copies of all IICEP correspondence, including data request letters and all received agency responses, are included in Appendix A.

### **1.5.3 NATIVE AMERICAN CONSULTATION**

The NEARNG is conducting formal consultation with federally recognized Native American tribes as required under Department of Defense Instruction (DoDI) 4710.02 (*DoD Interactions with Federally Recognized Tribes*), which implements the *Annotated DoD American Indian and Alaska Native Policy* (dated October 27, 1999). These entities were invited by the NEARNG to participate as Sovereign Nations per EO 13175 (*Consultation and Coordination with Indian Tribal Governments*) in both the EA and the National Historic Preservation Act (NHPA) Section 106 process. Consultations with these tribes were conducted by the NEARNG in accordance with the protocol set forth in the NGB NEPA Handbook (2006). Section 9.0 lists the federally recognized Native American tribes that were notified of the Proposed Action and invited to consult. Copies of all correspondence with Native American tribes, including data request letters and all received tribal responses, are included in Appendix A.

## **1.6 Regulatory Framework**

A decision on whether to proceed with the Proposed Action rests on numerous factors such as mission requirements, schedule, availability of funding, and environmental

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

## **2.0 PROPOSED ACTION**

### **2.1 Introduction**

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

### **2.2 Facilities and Operations**

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

- 46,971-square-foot AFRC training building
- 100-square-foot flammable materials facility
- 300-square-foot controlled waste facility
- 2,048-square-foot maintenance training workbays
- 2,700-square-foot heated storage

Future site improvements are expected to occupy approximately 20 acres. The state of Nebraska would acquire new land for construction of these facilities. The Army estimates that construction would begin in March 2010 and would be completed by September 2011.

The AFRC would provide administrative, educational, assembly, kitchen, library, learning center, vault, weapons simulator, maintenance training bays, and physical fitness areas for one NEARNG unit and ten U.S. Army Reserve (USAR) units. The NEARNG unit to be housed at this facility is the 1075<sup>th</sup> Transportation Company. USAR units to be housed at this facility are 45<sup>th</sup> TM HQ; 45<sup>th</sup> SEC OP; 45<sup>th</sup> TM DESK; 45<sup>th</sup> TM 1 TFC ACC INVES; 45<sup>th</sup> TM 2 TFC ACC INVES; 45<sup>th</sup> TM 3 TFC ACC INVES; 45<sup>th</sup> TM 4 TFC ACC INVES; 45<sup>th</sup> TM 5 TFC ACC INVES; 45<sup>th</sup> TM 1 INVES; and 45<sup>th</sup> TM 2 INVES. USAR sole use space would consist of 8,887 square feet.

Activities at the AFRC would be training-related, with no weapons firing. There would be no firing range or weapons qualification testing or training.

The facilities would be permanent masonry concrete block with a brick veneer, concrete footings and flooring, and a built-up or single membrane roof; heating, ventilation, and air conditioning (HVAC) systems; and plumbing, mechanical, electrical, and security systems. The Proposed Action would also provide approximately 10,050 square yards of parking space for military vehicles and approximately 4,158 square yards for privately-owned vehicles. All facilities would be designed to meet Leadership in Energy and Environmental Design (LEED) Silver standards, in accordance with the Army sustainability policies.

Supporting improvements are also proposed to complement the facilities, including approximately 1,035 square yards of walkways, grading, clearing and landscaping, extension of utility services, security fencing and lighting, and general site improvements.

Anti-terrorism/Force Protection (ATFP) safety and security regulations would be incorporated into the facility designs and siting.

### **2.3 Equipment**

Approximately 152 vehicles including high mobility multi-purpose wheeled vehicles (Humvees), semi tractors, and commercial cars and trucks, as well as approximately five trailers, are anticipated to be located at the AFRC as a result of the realignment of NEARNG and USAR units to the new AFRC. Occasionally, some of these vehicles could be staged and then moved as a convoy for off-site training.

### **2.4 Personnel**

The new facility would realign the NEARNG and USAR units, resulting from the closure of the NEARNG Readiness Center and USAR Center in Columbus, Nebraska, as directed by BRAC 05.

The facility would employ approximately one permanent full-time personnel and would serve about 132 personnel on a rotating basis, mostly on weekends. The maximum expected use of the new facility would be about 87 members per weekend, and there would be parking for 90 privately-owned vehicles (90 percent of the authorized strength of the assigned units required to train simultaneously, including tenants). On training weekends, reservists would either commute to the AFRC or stay in local hotels.

## **3.0 ALTERNATIVES CONSIDERED**

### **3.1 Introduction**

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

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

### **3.2 Screening Criteria**

NEPA and CEQ regulations require exploration and objective evaluation of all reasonable alternatives. Identification of those alternatives eliminated from detailed evaluation along with brief justification for elimination is required. An alternative is considered reasonable only if, as a result of its implementation, it meets essential requirements of affording land and facilities to mitigate deficiencies of administrative space, educational space and resources, assembly space, and maintenance training areas in Columbus, Nebraska. Alternatives that would not achieve essential requirements are considered unreasonable.

Columbus, Nebraska was selected as the location for a new AFRC as a result of BRAC law regarding USAR installations and facilities. The Proposed Action replaces a USAR center with a multi-component, multi-functional AFRC capable of accommodating USAR and NEARNG units. A demographic study has been conducted, and it has been determined that the general population pool is adequate to meet future manning requirements of all units proposed for stationing at this facility.

BRAC recommendations direct the relocation of units to a new AFRC in Columbus, Nebraska if the Army is able to acquire land suitable for the construction of the facilities. The Army considers both general and specific siting criteria for construction of new facilities.

General siting criteria include consideration of compatibility between the functions to be performed and the land use designation for the site, adequacy of the site for the function required, proximity to related activities, distance from incompatible activities, availability and capacity of roads, efficient use of property, development density, potential future mission requirements, and special site characteristics, including environmental incompatibilities.

The Nebraska Military Department developed the following specific siting criteria: at least 15 acres; property front on at least one public road; free from low-lying areas, steep slopes, landfills, faults and other prospective nuisances; uniformly contoured terrain that is level or only slightly sloping; access to all public utilities necessary for operation; protected by local zoning regulations to permit construction and operation of proposed AFRC and prohibit establishment of activities that would adversely affect operation of the AFRC; free from conditions that would prevent or affect the construction, occupancy, and future operation of the facility; uncontaminated; and not located in a flood plain.

The Army screened four locations shown on Figure 3-1. The following describes the constraints considered in the evaluation process for the locations.

- **Safety Constraints** – Engineering and operational safety, vehicle traffic and circulation patterns including access roads
- **Geographic and Environmental Constraints** – Availability of sufficient land area and configuration for anticipated footprint of at least 20 acres, access, security requirements, existence of environmentally sensitive areas within the anticipated footprint, minimum ATRP requirements
- **Operational Constraints** – Infrastructure demand (water, electricity, and other needs), compatibility with neighborhood, demolition costs (estimated costs to demolish any existing improvements)

Table 3-1 summarizes the selection criteria as applied to each location considered. Based on the screening criteria, two alternatives, the Preferred Alternative and the No Action Alternative, were developed for evaluation in this EA. Details of these alternatives are described in Section 3.3.

The No Action Alternative is required to be carried forward by CEQ. Section 3.4 discusses the sites that were eliminated from further consideration and the reasons for elimination.

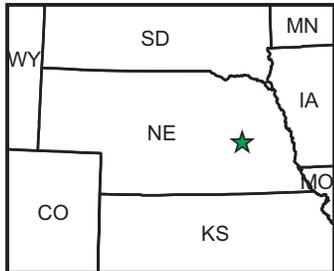


**Legend**

 Proposed Land

0 1,000 2,000 4,000 Feet

0 245 490 980 Meters



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

Figure 3-1

Sites Screened for Inclusion in this  
Environmental Assessment



**Table 3-1.** Selection Criteria for Each Site.

Site	Location Description	Safety Constraints	Geographic and Environmental Constraints	Operational Constraints	Carried Forward to EA or Not Carried Forward
1	Southwest	Increased traffic on 18 <sup>th</sup> Avenue along residential neighborhood and Bill Babka Drive; airport service road.	<ul style="list-style-type: none"> <li>Approximately 25% of parcel designated Prime Farmland.</li> <li>Airport expansion may encroach on site.</li> <li>Access likely restricted on Babka Drive; airport service road.</li> </ul>	<ul style="list-style-type: none"> <li>Proposed location shares boundary with residential neighborhood.</li> <li>Utility upgrade may be necessary.</li> <li>Lack of visibility from East 23<sup>rd</sup> Avenue.</li> </ul>	Not carried forward
2	East	Increased traffic on 7 <sup>th</sup> Avenue or 3 <sup>rd</sup> Avenue through residential neighborhoods.	<ul style="list-style-type: none"> <li>Approximately 50% of parcel designated Prime Farmland or Prime Farmland If Drained.</li> <li>Lost Creek runs through the site.</li> <li>Site is within 100-year floodplain of Lost Creek.</li> <li>Slope/grade concerns.</li> </ul>	<ul style="list-style-type: none"> <li>Proposed location shares boundary with residential neighborhood.</li> <li>Utility upgrade may be necessary.</li> <li>Lack of visibility from East 23<sup>rd</sup> Avenue.</li> </ul>	Not carried forward
3	Johannes Parcel	Increased traffic on East 14 <sup>th</sup> Avenue through a residential neighborhood.	Approximately 43% of parcel designated Prime Farmland.	<ul style="list-style-type: none"> <li>Proposed location near residential neighborhood.</li> <li>Utility extension and upgrade may be necessary.</li> </ul>	Carried forward to EA
4	Northwest	Increased traffic on 26 <sup>th</sup> Avenue through a residential neighborhood.	<ul style="list-style-type: none"> <li>Approximately 61% of parcel designated Prime Farmland or Prime Farmland If Drained.</li> <li>Lost Creek runs through the site.</li> <li>Site is within 100-year floodplain of Lost Creek.</li> </ul>	<ul style="list-style-type: none"> <li>Proposed location shares boundary with residential neighborhood.</li> <li>Utility extension and upgrade may be necessary.</li> <li>Lack of visibility from East 23<sup>rd</sup> Avenue.</li> </ul>	Not carried forward

### 3.3 Alternatives Evaluated

This EA evaluates the Preferred Alternative (Alternative 1) and the No Action Alternative (Alternative 2), as required by law.

#### 3.3.1 ALTERNATIVE 1 – PREFERRED ALTERNATIVE

After an examination of four properties in Columbus, Nebraska (Table 3-1 and Figure 3-1), the NEARNG determined that the property identified as the Johannes Parcel in this EA met all of the Nebraska Military Department's siting criteria to support the NEARNG's mission in Columbus. Implementation of the Proposed Action (i.e., construction and operation of an AFRC in Columbus, Nebraska) at the Johannes Parcel is the NEARNG's Preferred Alternative. The other three properties did not meet the siting criteria and are, therefore, not evaluated in this EA as explained in Section 3.4.

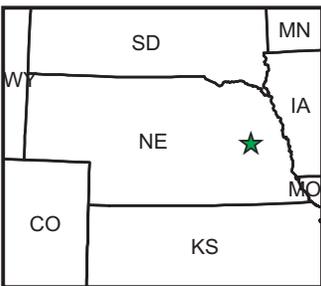
The Army's Preferred Alternative is to construct the AFRC and associated facilities at the location shown as Johannes on Figure 3-1. This site, called the Johannes Parcel in this EA, is described below along with the reasons for identifying it as the Preferred Alternative.

The Nebraska Military Department siting criteria include a parcel size of greater than 15 acres. The Johannes Parcel consists of approximately 33 acres of rectangular-shaped land located north of East 23<sup>rd</sup> Street, approximately 0.25 mile east of the intersection of East 23<sup>rd</sup> Street and East 14<sup>th</sup> Avenue, approximately 3.25 miles east of Columbus, Nebraska. The city of Columbus annexed the Johannes Parcel in 2008 (Mangiamelli 2008). Siting criteria require the property front to be on a public road. Access to the site would be from East 14<sup>th</sup> Avenue to the south side of the parcel. Figure 3-2 shows an aerial photograph of the Johannes Parcel.

The Johannes Parcel is currently privately owned with conveyance to the state of Nebraska by donation or 50 year no-cost lease, planned prior to construction of the AFRC. Approximately 20 acres of the parcel would be used for the AFRC with the balance becoming a city park. The site is open and plowed and presently used for agriculture. The site is free from conditions that would prevent or affect construction, occupancy, and future operation of the facility, satisfying another siting criterion. Approximately 43 percent of the site is designated prime farmland. Hay/alfalfa was the most recent crop harvested. Visibility of the site to the community is good from East 23<sup>rd</sup> Avenue.

To the northwest of the Johannes Parcel is the Johannes Subdivision. North of the Johannes Parcel is agricultural land planted with soybeans. Agricultural land surrounds the remainder of the Johannes Parcel to the east, south, and west; all planted with corn.

This site is considered the Army's Preferred Alternative; it meets all of the Nebraska Military Department's siting criteria and has fewer geographical and environmental and operational constraints than the other sites.



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 U.S Army Corps of Engineers, Mobile District

Figure 3-2

Aerial Photograph of Johannes Parcel - Preferred Alternative



### 3.3.2 NO ACTION ALTERNATIVE

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

Under the No Action Alternative, the Army would not implement the Proposed Action. The NEARNG unit and the 10 USAR units listed in Section 2.2 would continue to train at and operate from their current locations which are over utilized and not properly configured to allow the most effective training of personnel to complete mission requirements. However, routine replacement or renovation actions could occur through normal military maintenance and construction procedures as circumstances independently warrant.

### 3.4 Alternatives Considered and Eliminated

Three other alternative sites were considered in Columbus, Nebraska for the construction of the proposed AFRC (see Table 3-1 and Figure 3-1). The sites labeled as Southwest, East, and Northwest were eliminated from further study during the screening process due to various safety, geographical and environmental, and operational constraints and as described in more detail below. Specific siting criteria set forth by the Nebraska Military Department were also not met, including, restriction of access, location in a floodplain, steep topography, and possible constraints as a result of future airport expansion. As a result, these sites are not carried forward for analysis in this EA.

The Southwest Site consists of approximately 20 acres of irregularly-shaped land located adjacent to the Columbus Municipal Airport. This site is located north of Bill Babka Drive between the Columbus Municipal Airport and a residential neighborhood on 18<sup>th</sup> Avenue, within the city of Columbus, Nebraska. The site is open and plowed for agricultural use and believed to be farmed for hay/alfalfa. Approximately 25 percent of the site is designated prime farmland. Access to the site would likely be from 18<sup>th</sup> Avenue along a residential neighborhood, to Bill Babka Drive; the main road used for access to the Columbus Municipal Airport. There are foreseeable issues with large convoys of heavy vehicles traveling on residential roads. The site is in a more central part of town with higher traffic counts, as well. Additionally, there is concern that expanding airport operations would encroach on this site. The western boundary of the site would be shared with that of a residential neighborhood. This site is the most constricted for opportunities for future growth. Future expansion would only be possible from the north because of site layout, the residential area, and airport. The northern part of the site is obscured by the residential and industrial surrounding; therefore, it lacks the required visibility to the public.

The East Site consists of approximately 40 acres of irregularly-shaped land located approximately 0.25 mile east of the Columbus Municipal Airport, and 0.30 mile north of East 23<sup>rd</sup> Street at the end of 7<sup>th</sup> Avenue. Two potential layouts for this site were considered, with each layout covering approximately 20 acres. This site is immediately adjacent to a residential neighborhood on Air Vista Drive. Access to the site would likely be from 7<sup>th</sup> Avenue or 3<sup>rd</sup> Avenue, both through residential neighborhoods. This site is

open and plowed for agricultural use. Approximately 50 percent of the parcel is designated prime farmland or prime farmland if drained. Lost Creek runs through the site and the land adjacent to Lost Creek is within a special flood hazard area inundated by 100-year flood, zone AO described as “Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain).” Additional concerns exist regarding the slope/grade of this site. The eastern boundary of the site would be shared with that of a residential neighborhood. Furthermore, this site would have limited to no visibility to the community.

The Northwest Site consists of approximately 52 acres of irregularly-shaped land located approximately at the northwest end of the Columbus Municipal Airport, and approximately 1 mile north of the intersection of East 23<sup>rd</sup> Street and 26<sup>th</sup> Avenue within the city of Columbus, Nebraska. Four potential layouts for this site were considered, with each layout covering approximately 20 acres. This site is immediately adjacent to a residential neighborhood. Access to the site would be through a residential neighborhood along 26<sup>th</sup> Avenue. This site is open and plowed for agricultural use. Approximately 61 percent of parcel is designated prime farmland or prime farmland if drained. Lost Creek runs through the site and the land adjacent to Lost Creek is within a special flood hazard area inundated by 100-year flood, zone AO described as “Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain).” The southern boundary of the site would be shared with that of a residential neighborhood. There is additional concern that the land west of the site would ultimately be developed into a residential neighborhood. Given the sites’ location in the northern part of Columbus, this site would have limited to no connectivity and visibility to the community. Traffic to and from the AFRC would have to drive approximately 1 mile to get to the highway, traveling through residential neighborhoods.

## **4.0 AFFECTED ENVIRONMENT**

This chapter describes the existing resources that could potentially be affected by the Proposed Action and alternatives. The environment described in this chapter is the baseline for the consequences that are presented for each resource in Section 5.0. The region of influence (ROI), or study area for each resource category is the Johannes Parcel and immediate surroundings, unless stated otherwise in the individual resource category discussion. Most of the baseline information was taken from existing documentation. The affected environment and baseline conditions are described for each resource in general terms for the Johannes Parcel or the resource-specific ROI.

### **4.1 Location Description**

Columbus, the county seat of Platte County, is located in the east-central part of Nebraska near the confluence of the Platte and Loup Rivers. U.S. Highways 30 and 81 intersect in the city. Columbus is 75 miles northwest of Lincoln and 85 miles west of Omaha, Nebraska.

The Army's Preferred Alternative is to construct the AFRC and associated facilities at the Johannes Parcel approximately 3.25 miles east of Columbus, Nebraska. The Johannes parcel consists of approximately 33 acres of rectangular-shaped land located north of East 23<sup>rd</sup> Street, approximately 0.25 mile east of the intersection of East 23<sup>rd</sup> Street and East 14<sup>th</sup> Avenue. The legal description of the property is the East 825 feet of the North 1056 feet of the Northeast Quarter of the Southwest Quarter (NE1/4 SW1/4) of Section Fifteen (15), Township Seventeen (17) North, Range One (1) East of the 6<sup>th</sup> Principle Meridian, Platte County, Nebraska. The city of Columbus annexed the Johannes Parcel in 2008 (Mangiamelli 2008).

The Johannes Parcel is situated in the relatively flat Platte River Valley at 1,430 feet above mean sea level (MSL) (OLSSON 2008). The Loup River Canal lies approximately 500 feet northeast of the Johannes Parcel and the Platte River, 3 miles south of the site. Annual average temperatures are mild with annual minimal temperatures around 39 degrees Fahrenheit (°F) and maximum annual temperatures average approximately 62°F (City of Columbus 2007). Annual precipitation includes 27 inches of rainfall and 24 inches of snowfall.

### **4.2 Land Use**

This section describes existing land use conditions on and surrounding the Johannes Parcel. 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 ROI for land use is the land within and adjacent to the limits of the Proposed Action project areas, areas visible from the Proposed Action construction locations, and areas from which the Proposed Action construction locations are visible.

#### **4.2.1 HISTORICAL AND CURRENT LAND USE**

The city of Columbus was established in 1856 as a business venture to create a town on the route of the transcontinental railway. As more pioneers arrived in Columbus, supporting services including a sawmill, grist mill, and brewery were built, making it the prime candidate for the county seat of Platte County. By 1910 Columbus had become a strong commercial point, and Columbus began to boom by mid-century in the areas of industry, agriculture, and power. Today, Columbus is the most highly industrialized city per capita in the state of Nebraska (Columbus 2009b).

The Preferred Alternative site (Johannes Parcel) is located on the eastern edge of the Columbus city limits. The city of Columbus annexed the Johannes Parcel in 2008 (Mangiamelli 2008). The Johannes Parcel is a rectangular-shaped parcel north of East 23rd Street, approximately 0.25 mile east of the intersection of East 23rd Street and East 14th Avenue.

Aerial photographs indicate from 1938 to present, land use patterns for the property have been agricultural (OLSSON 2005). The site was most recently planted in alfalfa, with approximately 45 percent of the site considered prime farmland (USDA NRCS 2008). The Johannes Parcel is currently privately owned with conveyance to the state of Nebraska by donation or 50 year no-cost lease planned prior to construction of the AFRC.

#### **4.2.2 SURROUNDING LAND USE**

Land surrounding the Johannes Parcel is used for both residential and agricultural purposes. Historically, the adjacent land has been used for agricultural purposes, with residential development beginning to occur in 1976 (OLSSON 2005). The Johannes Subdivision lies to the northwest of the site. North of the Johannes Parcel is agricultural land planted with soybeans. Agricultural land planted in corn surrounds the remainder of the Johannes Parcel. South of agricultural land bordering the Johannes Parcel are Highway 30 and an area of commercial development (OLSSON 2005).

#### **4.2.3 LOCAL ZONING**

The Johannes Parcel, as well as the land to the immediate east and west, is currently zoned rural residential according to the Columbus Comprehensive Plan (OLSSON 2005). The city of Columbus considers the proposed AFRC a public safety facility and as such it would not violate existing rural residential zoning restrictions, as a public safety facility is an allowable use under rural residential (Lindahl 2009b). Therefore rezoning of the Johannes Parcel is not necessary. The residential area to the north is zoned for single family residents. General industrial district zoning occurs in the industrial area to the south of the parcel. Small sections located to the southwest and southeast corners of the Johannes Parcel are zoned general commercial districts (OLSSON 2005).

#### **4.2.4 VISUAL AND AESTHETIC RESOURCES**

This section describes the existing aesthetic and visual resource conditions in the area of the Johannes Parcel. Visual resources include natural and manmade physical features

that provide the landscape its character and value as an environmental resource. Landscape features that form a viewer's overall impression about an area include landform, vegetation, water, color, adjacent scenery, scarcity, and constructed modifications to the natural setting. The ROI for aesthetics includes the areas visible from the Proposed Action construction locations and areas from which the Proposed Action construction locations are visible.

The Johannes Parcel is in a rural area. Most views surrounding the site are of agricultural land. Views to the north are of a soybean field with trees and residences immediately beyond the field. Views to the south, west, and east include corn fields. Views to the northwest also include a residential area, the Johannes subdivision, and to the south Highway 30 and an industrial area south of the highway.

### 4.3 Air Quality

This section describes the existing air quality conditions at and surrounding the Johannes Parcel. Ambient air quality conditions are discussed first followed by emission sources in the area of the considered site.

The ambient air quality in an area can be characterized in terms of whether it complies with the primary and secondary National Ambient Air Quality Standards (NAAQS). The CAA (42 U.S.C. 7401 et seq.) requires the U.S. Environmental Protection Agency (EPA) to set NAAQS for pollutants considered harmful to public health and the environment. National primary ambient air quality standards define levels of air quality which the EPA has determined as necessary to provide an adequate margin of safety to protect public health, including the health of "sensitive" populations such as children and the elderly. National secondary ambient air quality standards define levels of air quality which are deemed necessary to protect the public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. NAAQS have been established for six criteria pollutants: carbon monoxide (CO); lead (Pb); nitrogen dioxide (NO<sub>2</sub>); ozone (O<sub>3</sub>); particulate matter (which includes both particulate matter with an aerodynamic size less than or equal to 10 microns [PM<sub>10</sub>] and particulate matter with an aerodynamic size less than or equal to 2.5 microns [PM<sub>2.5</sub>]); and sulfur dioxide (SO<sub>2</sub>). Table 4-1 lists the NAAQS primary standards for each criteria pollutant.

**Table 4-1.** National Ambient Air Quality Standards.

Pollutant	Standard Value
<b>Carbon monoxide (CO)</b>	
8-hour average	9 ppm
1-hour average	35 ppm
<b>Lead (Pb)</b>	
Quarterly average	1.5 µg/m <sup>3</sup>
<b>Nitrogen dioxide (NO<sub>2</sub>)</b>	
Annual arithmetic mean	0.053 ppm

Pollutant	Standard Value
<b>Ozone (O<sub>3</sub>)</b>	
8-hour average (2008 standard)	0.075 ppm
<b>Particulate matter less than 10 microns (PM<sub>10</sub>)</b>	
24-hour average	150 µg/m <sup>3</sup>
<b>Particulate matter less than 2.5 microns (PM<sub>2.5</sub>)</b>	
Annual arithmetic mean	15.0 µg/m <sup>3</sup>
24-hour average	35 µg/m <sup>3</sup>
<b>Sulfur dioxide (SO<sub>2</sub>)</b>	
Annual arithmetic mean	0.03 ppm
24-hour average	0.14 ppm

Source: 40 CFR 50.4 through 50.13  
 µg/m<sup>3</sup> micrograms per cubic meter  
 ppm parts per million

The Nebraska Department of Environmental Quality, Air Quality Division, has the responsibility and mission to protect Nebraska's air resources. Applicable regulations are set in Title 129, "Nebraska Air Quality Regulations."

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 considered to be in attainment of the NAAQS. A nonattainment status is designated for areas where the applicable NAAQS are not being met. A maintenance status is designated for areas that have had a history of nonattainment, but are now consistently meeting the NAAQS. Maintenance areas have been re-designated by the EPA from "nonattainment" to "attainment with a maintenance plan."

Columbus, Nebraska is located within Platte County. Platte County's air quality meets the NAAQS and is thus classified as being in attainment for all criteria pollutants: CO, Pb, NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and O<sub>3</sub>.

Section 176(c)(1) of the *Clean Air Act* requires Federal agencies to ensure that their actions conform to applicable implementation plans for the achievement and maintenance of the NAAQS for criteria pollutants. To achieve conformity, a Federal action must not contribute to new violations of standards for ambient air quality, increase the frequency or severity of existing violations, or delay timely attainment of standards in the area of concern (for example, a state or a smaller air quality region). Federal agencies prepare written Conformity Determinations for Federal actions that are in or affect NAAQS nonattainment areas or maintenance areas when the total direct or indirect emissions of nonattainment pollutants (or their precursors in the case of ozone) exceed specified thresholds. Because the Proposed Action in Platte County, Nebraska is located in an area that is attainment for all criteria pollutants, the Proposed Action will meet conformity rules.

Regional air pollutant emissions from reported sources are listed below in Table 4-2 for Platte County, Nebraska, for the year 2002, the most recent year available.

**Table 4-2.** Air Emissions Reported for Platte County, Nebraska, for Calendar Year 2002.

Pollutant	2002 Emissions (tpy)		
	Nonpoint Source <sup>a</sup>	Point Source <sup>b</sup>	Total
Particulate matter less than 2.5 microns (PM <sub>2.5</sub> )	1,232	11.6	1,244
Particulate matter less than 10 microns (PM <sub>10</sub> )	9,013	20.1	9,033
Carbon monoxide (CO)	10,603	8.04	10,611
Nitrogen oxides (NO <sub>x</sub> )	2,960	23.9	2,984
Sulfur dioxides (SO <sub>2</sub> )	1,653	1.07	1,654
Volatile organic compounds (VOC)	1,468	78.9	1,547

Source: EPA 2008a

tpy tons per year

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

The potential for radon gas exposure exists in Platte County. Radon is a radioactive gas that results from the decay of radium and exists in varying amounts in most soils. Because radon is a gas, it can move through soil and into the atmosphere or into a building structure. Prolonged exposure to high levels of radon can lead to lung cancer. The EPA Map of Radon Zones assigns each of the counties in the United States into one of three zones based on radon potential. Platte County in Nebraska is assigned to Zone 1, with a predicted average indoor average radon screening level greater than 4 picocuries per liter (pCi/L) (EPA 2008b). Zone 1 is considered to have the highest potential for radon. The Nebraska Department of Health and Human Services (DHHS) has summarized radon test data from the city of Columbus (DHHS 2008). For the area of Columbus with the most samples, the average radon concentration was 4.6 pCi/L, with the maximum concentration of 26.8 pCi/L. Radon-reducing measures are described in Section 5.2.1.

## 4.4 Noise

This section describes the existing noise conditions in the area of the Johannes Parcel.

### 4.4.1 NOISE MEASUREMENT

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

natural ambient noise from sources such as wind, streams and rivers, wildlife and other sources.

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

#### **4.4.2 NOISE SOURCES IN THE AREA OF THE JOHANNES PARCEL**

In general, small towns and rural communities typically have background sound levels of 45 to 55 dBA. Agricultural activities on adjacent parcels may contribute intermittent noise to the environment. Traffic noise at the Johannes Parcel from Highway 30 and East 14<sup>th</sup> Avenue is negligible due to the distance to these roads, approximately 1,500 feet. Traffic noise 50 feet from a highway is typically 75 dBA but attenuates to about 60 dBA at 400 feet and to 50 dBA at a distance of 800 feet (Hanson et al. 2006).

### **4.5 Geology and Soils**

This section describes the existing geology and soil conditions in the area of the Johannes Parcel. The ROI for geology and soils is the land within the Proposed Action project areas.

#### **4.5.1 GEOLOGIC AND TOPOGRAPHIC CONDITIONS**

The Johannes Parcel is flat to very gently sloping towards the south. The elevation of the site ranges from 1,430 to 1,431 feet above MSL. The average gradient at the surface is approximately 0.0005 sloping down to the southeast (Gravity College 2008). The bedrock at the Johannes Parcel is composed of the great Pleistocene glaciers consisting of glacial till. The till is made of blue clay overlain by thick beds of loose gravel and boulders, with occasional buried soils where once forests grew (Geology 2008).

Historical data of seismic activity indicate that damaging earthquakes in Nebraska are rare. The first significant earthquake recorded in Nebraska occurred in 1867 and was apparently centered near Lawrence, Kansas. Since then seven earthquakes of intensity V or greater, on the Modified Mercalli Scale, were recorded all originating in Nebraska. In addition, several earthquakes were felt in Nebraska that originated in neighboring states. None of these earthquakes caused damage (USGS 2008). The strongest earthquake in Nebraska history occurred on November 15, 1877 with an intensity of VII. The effects of this earthquake were felt in an area of approximately 140,000 square miles that included most of Nebraska and parts of Iowa, Kansas, the Dakotas, and northwestern Missouri (USGS 2008).

#### **4.5.2 SOILS**

The Johannes Parcel is covered by soils represented by three mapping units. The northwestern, central, and parts of southwestern and southeastern sections of the

Johannes Parcel are covered by the Gibbon-Gayville silty clay loam (occasionally flooded). This unit is characterized by somewhat poor drainage, moderate infiltration rate, and moderate susceptibility to wind erosion (USDA NRCS 2008). The northern, eastern, and parts of the southeastern sections of the parcel are covered by the Grigston silt loam (substratum, rarely flooded) which is characterized by good drainage, moderate infiltration rate, and low susceptibility to wind erosion (USDA NRCS 2008). Most of the southwestern quarter and part of the northwestern quarter of the parcel are covered by the Grigston silt loam (rarely flooded), characterized by identical physical properties as the Grigston silt loam (substratum, rarely flooded) (USDA NRCS 2008). The Gibbon-Gayville silty clay loam (occasionally flooded), Grigston silt loam (substratum, rarely flooded), and Grigston silt loam (rarely flooded) units cover approximately 55, 31, and 14 percent of the Johannes Parcel, respectively (USDA NRCS 2008).

### **4.5.3 PRIME FARMLAND**

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses. Prime farmland could be cultivated land, pasture land, forest land, or other land, but it is not urban or built-up land or water areas (USDA NRCS 2008). Of the 33 acres considered for the AFRC at the Johannes Parcel, approximately 15 acres are considered prime farmland (USDA NRCS 2008) (Figure 4-1). Prime farmland is protected by the Farmland Protection Policy Act (7 CFR Parts 657 and 658).

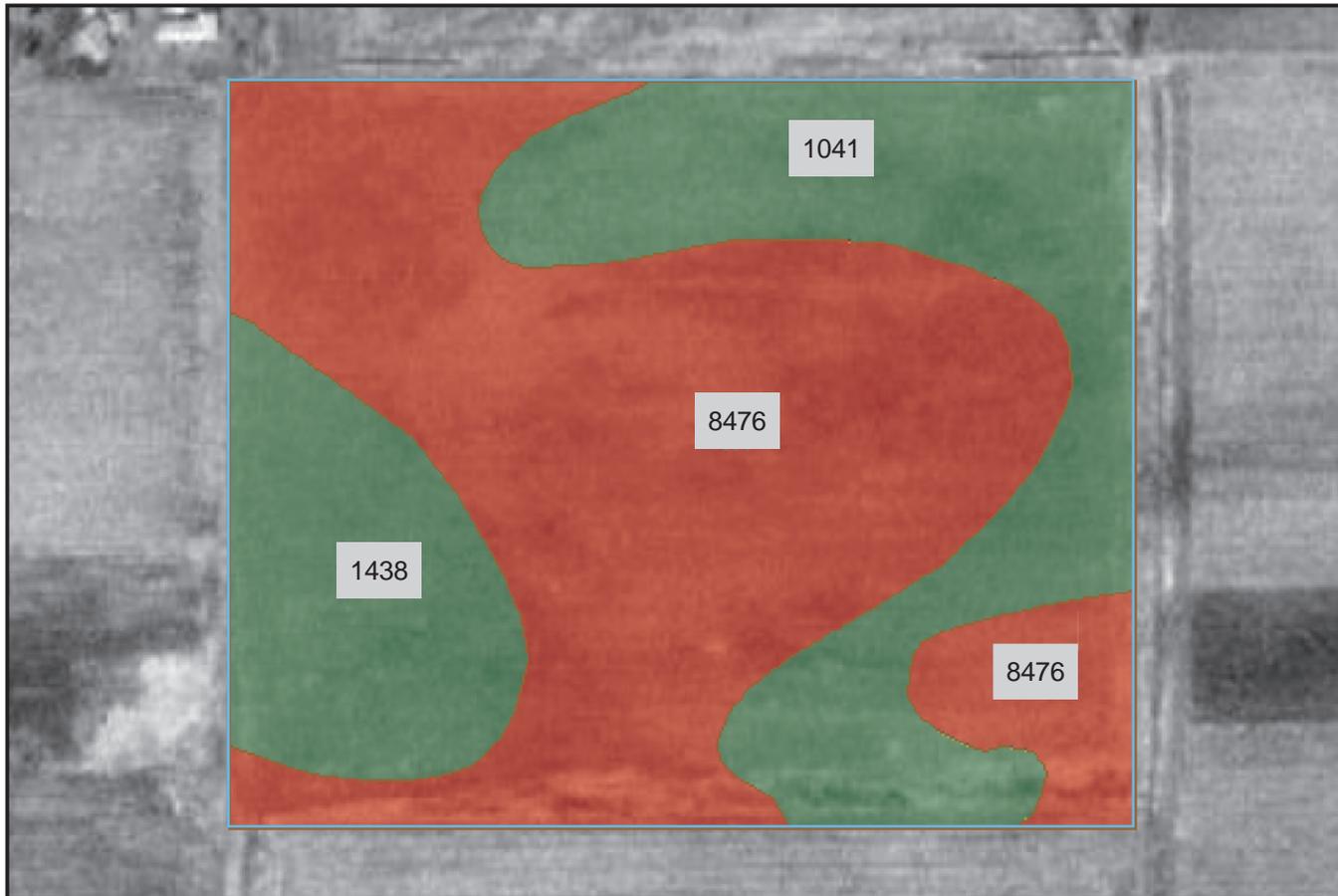
## **4.6 Water Resources**

This section describes existing water resources on and in the area of the Johannes Parcel, including surface and groundwater resources. The ROI for water resources includes the Johannes Parcel and areas downstream from the Proposed Action project areas. Surface water includes lakes, rivers, and streams and is important for a variety of reasons, including economic, ecological, recreational, and human health. Groundwater comprises the subsurface hydrogeologic resources of the physical environment. Wetlands are discussed in Section 4.7.4.

### **4.6.1 SURFACE WATER**

A limited number of rivers, creeks, lakes, and one canal occur in the vicinity of Columbus, Nebraska. The Johannes Parcel is located in the Lower Platte-Shell River basin, of the Lower Platte River basin, of the Platte River basin (NDNR 2009a). The Platte River flows easterly until joining the Missouri River, which flows southeasterly until reaching the Mississippi River. The Mississippi River flows south into the Gulf of Mexico.

There are no surface water features on the Johannes Parcel. The closest surface water feature is the Loup River Canal, approximately 0.1 mile northeast, which flows southeasterly into the Platte River.



Map Units

- 1041 Grigston silt loam, wet substratum, rarely flooded; Prime farmland
- 1438 Grigston silt loam, rarely flooded Prime farmland
- 8476 Gibbon-Gayville silty clay loams, occasionally flooded; Not prime farmland

Soil Ratings

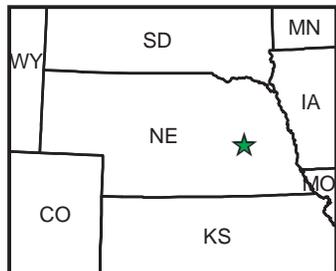
- Not prime farmland
- All areas are prime farmland



USDA Natural Resources Conservation Service

Web Soil Survey 2.0 National Cooperative Soil Survey

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

Figure 4-1  
Farmland - Preferred Alternative



## **4.6.2 HYDROGEOLOGY/GROUNDWATER**

The High Plains aquifer underlies about 174,000 square miles of eight states in the High Plains region, including Nebraska. The surficial aquifer system underlying the Johannes Parcel is a stream-valley aquifer consisting primarily of unconsolidated deposits of late Quaternary age. The underlying and hydraulically connected Ogallala Formation primarily consists of unconsolidated sand and gravel (USGS 1999). Well yields in the vicinity of the Johannes Parcel are reported as high as 1,250 gallons per minute (GPM) (NDNR 2009b).

Groundwater flow direction across the Johannes Parcel is assumed to be southeast (OLSSON 2008). Groundwater quality of the High Plains aquifer is affected by many factors. The approximate dissolved-solids concentration of the Ogallala Formation underlying the Johannes Parcel is 360 parts per million (ppm); the water is clear and has an approximate hardness of 270 ppm (NPPD 2007), and is generally of good quality.

## **4.6.3 FLOODPLAINS**

The Johannes Parcel is in an area outside the 100-year floodplain (1.0 percent chance) as shown on Federal Emergency Management Agency (FEMA) Floodplain map for Columbus, Nebraska (FEMA 1998) and the NDNR Interactive Floodplain Mapping application (Figure 4-2). Draft flood zones identified on the NDNR Interactive Floodplain Mapping application indicate the Johannes Parcel is within the 500-year floodplain (0.2 percent chance) of the Platte River (NDNR 2009c).

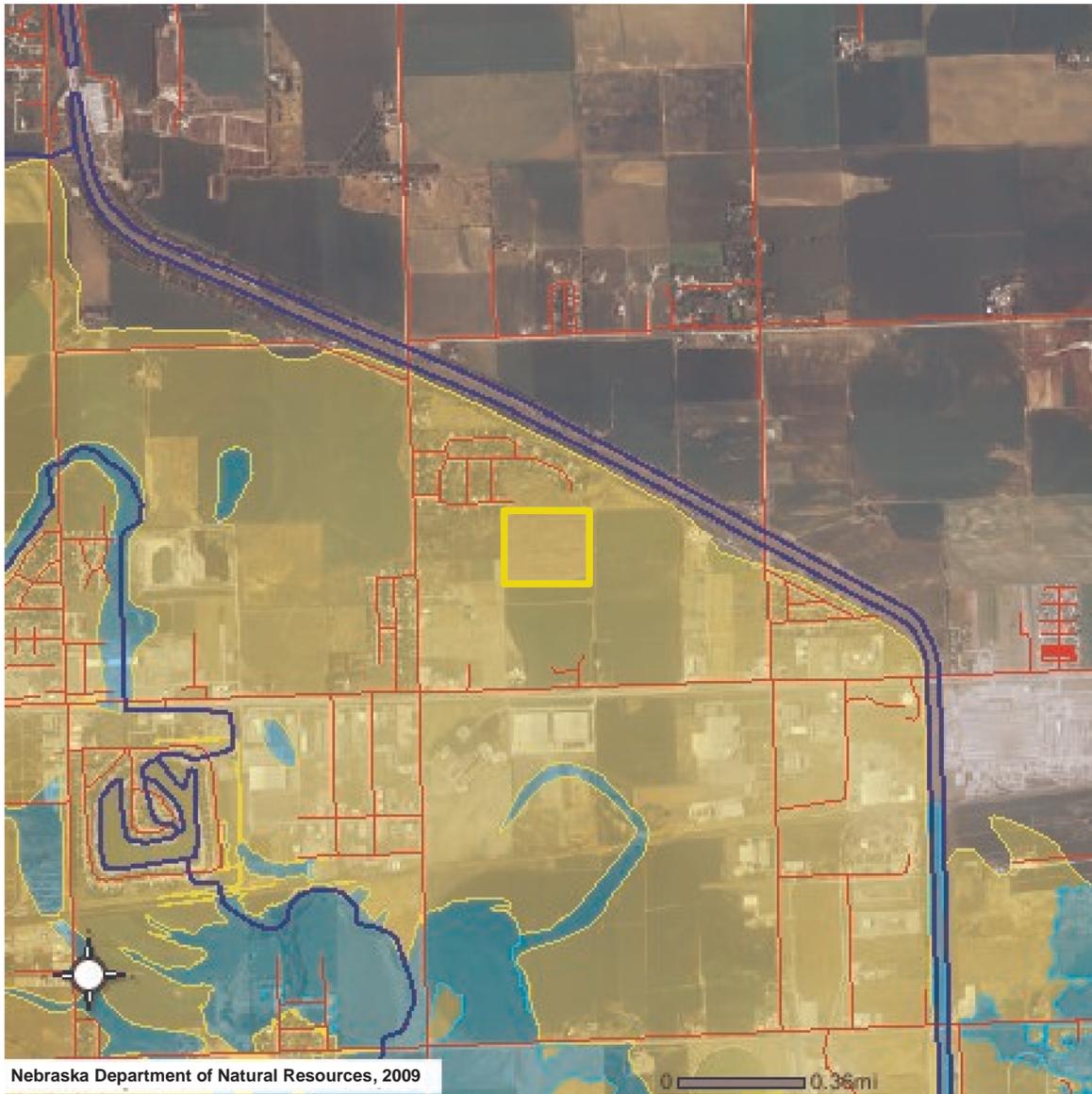
## **4.7 Biological Resources**

This section describes existing biological resources at the Johannes Parcel. 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.

The ROI for biological resources is the land within and immediately adjacent to the Proposed Action project areas.

### **4.7.1 VEGETATION**

The Johannes Parcel is located in the ecoregion area classified as tall grass prairie that extends from eastern Nebraska to Indiana (Schneider et al. 2005). The tall grass prairie receives a substantial amount of rainfall that defines the ecoregion; the majority of the precipitation occurring from April-September (Schneider et al. 2005). Only 1 percent of this ecoregion remains in the continental United States, with 2 percent occurring in Nebraska. Vegetation in the recent past and currently at the site consists of agriculture crops, most recently, alfalfa. Naturally occurring vegetation on the site is limited grasses along the edge of the field and herbaceous foliage that grows in-between crop production.



Nebraska Department of Natural Resources, 2009

Source: Information from Nebraska Department of Natural Resources Floodplain Interactive Map (<http://dnrmap2.dnr.state.ne.us/website/fppublic/viewer.htm>)



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

Figure 4-2  
Floodplains - Preferred Alternative



## 4.7.2 WILDLIFE

Although over 300 species of resident and migratory birds and over 55 mammal species have been documented in the Tall Grass Prairie Ecosystem, reduced natural vegetation limits wildlife species inhabiting the area. Amphibian species in the area are most likely limited to the wetland areas not associated with the Johannes Parcel. White-tailed deer (*Odocoileus virginianus*) are the most common game species in the area (Schneider et. al 2005). Other mammal species in this agriculture-suburban interface may include, but are not limited to, coyotes (*Canis latrans*), badgers (*Taxidae taxus*), and red foxes (*Vulpes vulpes*).

## 4.7.3 SENSITIVE SPECIES

The USFWS administers the ESA of 1973 as amended. This law provides Federal protection for species designated as federally endangered or threatened. An endangered species is “in danger of extinction throughout all or a significant portion of its range,” and a threatened species “is likely to become an endangered species within the foreseeable future” (USFWS 1988). Special status species are listed as threatened or endangered, are proposed for listing, or are candidates for listing by the state and/or Federal government. No federally-listed threatened or endangered species are known to occur on the Johannes Parcel. In compliance with the ESA, the USFWS was contacted. A copy of the consultation letter sent by the Nebraska Military Department to the USFWS, along with copies of scoping letters sent to the Nebraska Game and Parks Commission (NGPC) and the Nebraska Department of Environmental Quality, are included in Appendix A.

NGPC recognizes three fish, one mammal, three bird, and two plant species as endangered or threatened in Platte County (NGPC 2008a). The three fish species, lake sturgeon (*Acipenser fulvescens*), pallid sturgeon (*Scaphirhyncus albus*), and sturgeon chub (*Macrhybopsis gelida*), can be found in the Lower Platte River that borders the southern portion of the county, south of the Johannes Parcel (NGPC 2003). The Platte River is also important habitat for the endangered whooping crane (*Grus americana*) during part of the migration in April and October (NPGC 2008b). Interior least terns (*Sterna antillarum athalassos*) and piping plovers (*Charadrius melodus*) historically used the Lower Platte River and the Loup River for breeding areas along their banks. Diversion of water along the Loup River has allowed for encroachment of vegetation along the river banks and reduced nesting habitat to localized areas along the Loup and Platte Rivers (NPGC 2008c). The river otter (*Lutra canadensis*) was once native to Nebraska, but was eliminated from the state as a result of harvest. River otters have been reintroduced into sites on the North Platte and Loup Rivers west of Platte County (NGPC 2008d). While these species have not been positively identified on the Johannes Parcel, they could occur there or adjacent to the parcel.

In addition to the faunal species, two flora species are considered state threatened species in Platte County. The western prairie fringed orchid (*Platanthera praeclara*), also considered a federally threatened species, most often occurs in native prairie and meadow sites (Sather 1991). The small white lady’s slipper (*Cypripedium candidum*) occurs in

prairie fens and wet prairie communities. While these species have not been positively identified on the Johannes Parcel, they could occur there.

#### **4.7.4 WETLANDS**

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

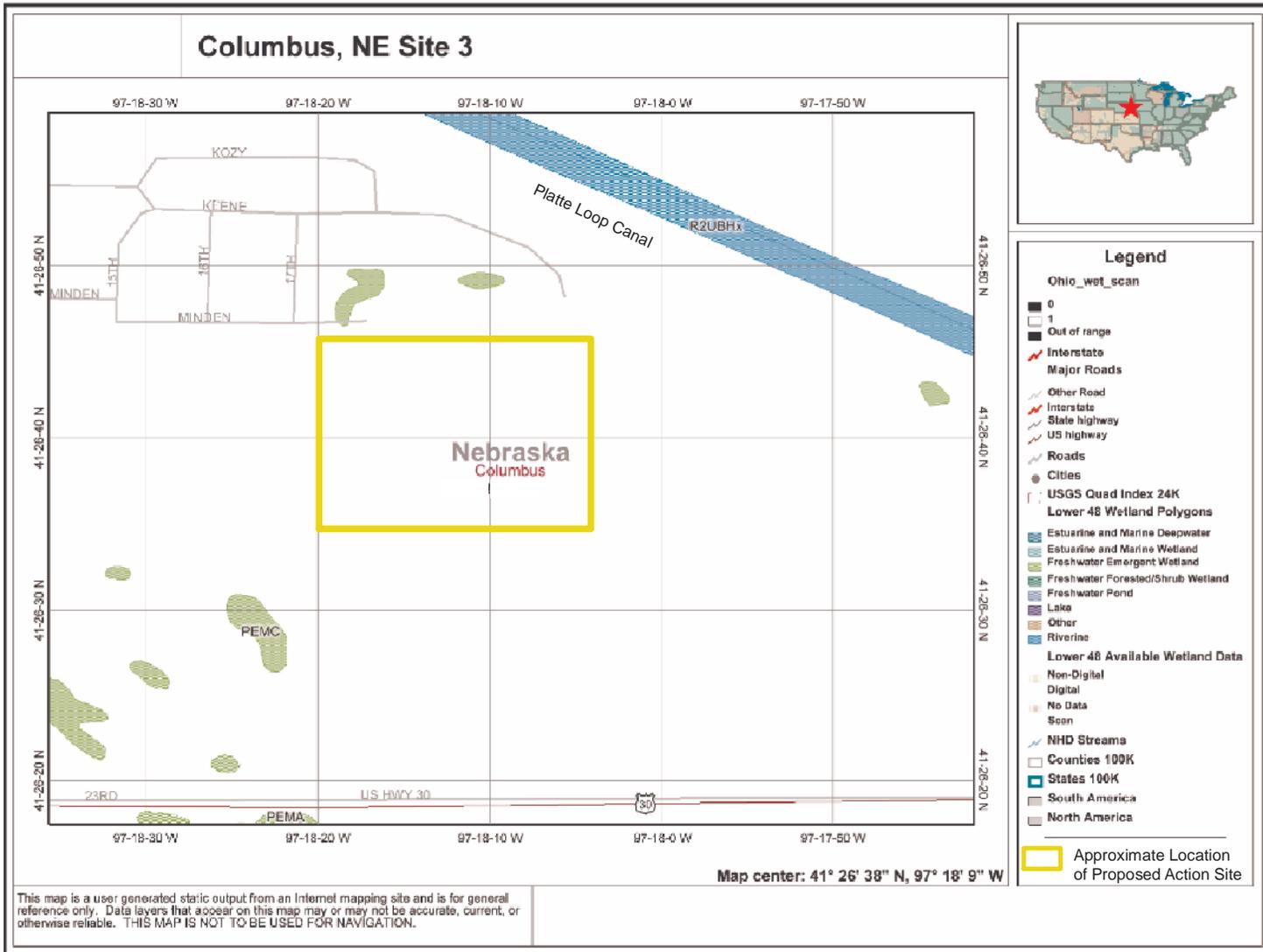
Several wetland areas (Figure 4-3) were depicted north and south of the proposed site according to the National Wetlands Inventory Map (USFWS 2008). Three of the wetland areas are less than 0.25 mile from the Johannes Parcel. All three wetlands are classified as palustrine, non-tidal wetlands dominated by shrubs and trees. In addition, the Loup River Canal is located 500 feet to the north of the Johannes Parcel.

### **4.8 Cultural Resources**

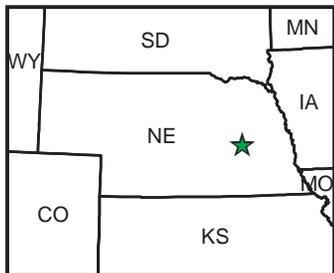
This section describes the existing cultural resource conditions in the area of the Johannes Parcel. Cultural Resources are defined as historic properties as defined by the NHPA, cultural items as defined by NAGPRA, archeological resources as defined by ARPA, sacred sites as defined in EO 13007 to which access is afforded under AIRFA, and collections and associated records as defined in 36 CFR 79.

#### **4.8.1 PREHISTORIC AND HISTORIC BACKGROUND**

The Nebraska State Historical Society’s website describes the prehistoric and historic background of the region in detail (NSHS 1998). The earliest documented human occupation on the Central Plains is dated at around 12,000 B.C. near the end of the last great Ice Age. These early people are called Paleoindians. This tradition is characterized by a highly mobile lifestyle that relied on the hunting of big game as a primary food source. Within this tradition, several complexes have been recognized largely on the types of chipped stone spear points. Many of these forms have been named and some that have been found in Nebraska include the Clovis, Plainview, Folsom, Hell Gap, Agate Basin, Alberta, Scottsbluff, Eden, Frederick, Lusk, and Brown's Valley types (NSHS 1998).



Source: Information from <http://wetlandsfws.er.usgs.gov/wtinds/launch.html>



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

Figure 4-3  
Wetlands - Preferred Alternative



By 9,000 B.C. the last Ice Age had ended and the climatic patterns somewhat characteristic of the modern period became established. Many of the animals such as mammoths, camels, horses, and others which dominated the Plains during the Ice Age were extinct. People adapted their lifestyle in response to shifts in climate and available plants and animals. More diverse hunting was practiced, utilizing both large and small game species. Wild plant resources were also exploited to a greater extent than during the Paleoindian tradition. People continued a nomadic lifestyle; however it appears that the range or movement of people was more localized than during the Paleoindian period (NSHS 1998).

The Woodland tradition was a time of innovation during which many new technological, economic, and social ideas made their appearance. Among the technological innovations is the appearance of the bow and arrow, the first use of pottery for storage and cooking, and the first documented use of semi-permanent dwellings found on sites that appear to have been occupied year-around. Often near these small village sites archeologists find evidence of elaborate burials in earthen mounds. Near the end of the period, evidence of experimentation with small scale gardening is evident (NSHS 1998).

The Central Plains Villagers tradition is marked by a change in subsistence and material culture traits by local Woodland populations. The adaptation may have been caused by the ending of a moist climatic period, and consequent thinning of game and plant resources. Although horticulture was an important addition to the people's subsistence, hunting and wild plant gathering was the primary source of nutrition. Sites are usually located along streams, where suitable garden locations were available. Artifacts include a wide variety of pottery types and bow and arrow projectile points that are triangular, with hafting notches on the lower edge and occasionally on the bottom (NSHS 1998).

The Caddoan Tradition encompasses the sites of the historically documented occupations of Pawnee and possibly the Arikara peoples in Nebraska. The primary area of settlement for these tribes was in the lower portions of the Loup River drainage, but earth-lodge villages also are found in the Republican, Blue, and the eastern Platte valleys. The Siouan-speaking tribes include the Omaha, Ponca, Oto-Missouria, Ioway, and Kansa. Their villages are located along the Missouri River and its lower tributaries of eastern Nebraska. The Caddoan and Siouan groups built and lived in permanent, large earth-lodge village complexes where they tended large gardens of corn and other produce and hunted and fished. These communities sometimes consisted of hundreds of lodges housing thousands of people. Many of these tribes conducted semiannual bison hunting expeditions to central and western Nebraska and were closely involved with the Euro-american fur trade. Western Nebraska was home to tribes such as the Apache, Lakota, Crow, Kiowa, Cheyenne, and Arapahoe. These groups were much more nomadic than the eastern tribes and subsisted primarily on buffalo. They lived in tipi villages which were frequently moved (NSHS 1998).

The earliest European presence in Nebraska was by Spanish and French explorers and traders coming out of the Southwest and the lower Mississippi Valley. The earliest documented incursions into the region were in the early 1700s, but there may have been occasional explorations in the late 1600s.

More sustained settlement began with fur trade, military, and missionary efforts beginning in the late 1700s and continuing through the mid-1800s. The mid-19th-Century also witnessed significant presence in the region by virtue of the immigrant routes, most notably the Oregon-California Trail. The 1860s and beyond was the time of major settlement in Nebraska characterized by urban development and emergence of agricultural development and rural communities (NSHS 1998).

Early in 1856, several men living in Columbus, Ohio, dreamed of the establishment of a town along the route of the proposed transcontinental railway. By March they had formed the "Columbus Town Company." Believing the logical choice for a railroad would be in the wide, flat Platte Valley that stretched from the Missouri to the mountains, they chose to locate their town at the confluence of the Loup and Platte rivers in the Nebraska Territory. When more pioneers arrived in the new town, a sawmill, grist mill, and a brewery sprang up. The well-established village was an easy choice for county seat when the area north of the Platte was reorganized. The "choice location" not only placed Columbus on the main line of the Union Pacific Railroad, but later as a hub for branch lines such as the Atchison & Nebraska from Lincoln, and the Omaha, Niobrara and Black Hills to Norfolk.

When the old Mormon Trail/Lincoln Highway (U.S. 30) and the Meridian Highway (U.S. 81) were paved for the automobile, Columbus became the "crossroads of the nation." Bridges over the rivers were improved and a viaduct was built across the busy U.P. tracks. By 1910 Columbus had a population of 5,000, a sizeable number of inhabitants for those days. It was a strong commercial point for goods going west. The town's next big growth spurt came in the mid part of the century when the Columbus economy became three pronged: industry, agriculture, and power.

During the dust, drought, and blight days of the 1930's Columbus leaders revived the earlier dream of harnessing water power to generate electricity. The construction of the project helped to alleviate local unemployment by providing jobs in the midst of the Great Depression. Water diverted from the Loup River into a canal continues today to produce hydro-electric power. Because of the Loup Project, Columbus was the birthplace of public power in Nebraska. In the mid-1940's, catering to both agricultural and industrial interests, several Columbus men-of-vision created an industrial site and constructed a speculative industrial building. This building led to the first out of town corporation to look at Columbus and eventually settle there, although not in the speculative building. This is believed to be the first designated industrial site in the United States. The company was Becton Dickinson and they now employ over 1,100 people. Today Columbus is the most highly industrialized city per capita in the state of Nebraska with manufacturing providing employment to over 5,700 area people. Columbus has grown to a diversified community of around 21,000 (Columbus 2009c).

#### **4.8.2 STATUS OF CULTURAL RESOURCE INVENTORIES AND SECTION 106 CONSULTATIONS**

Section 110 of the NHPA requires Federal agencies to locate, inventory, and nominate to the National Register of Historic Places (NRHP) all resources that are recommended eligible for inclusion on the NRHP.

Section 106 consultation and coordination has been initiated with the State Historic Preservation Office via the Nebraska State Historical Society. A copy of the letter the NEARNG sent to the Nebraska State Historical Society and the response received is included in Appendix A. The Nebraska State Historical Society stated that their review indicated that no recorded historic resources are located at or near the site and a Phase I Cultural Survey would not be necessary. In addition, there are no structures or buildings at or near the project area. With concurrence from the State Historic Preservation Office, the Army will not complete a Phase I Cultural Survey at the Preferred Alternative site.

#### **4.8.3 NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT (NAGPRA)**

No Native American concerns regarding the Proposed Action have been identified. A notification letter to the two federally recognized tribes, Pawnee Nation of Oklahoma and Omaha Tribe of Oklahoma, regarding the Proposed Action has been sent by the NEARNG. These two tribes have judicially recognized land in Platte County, Nebraska and are listed in the NEARNG's Integrated Cultural Resource Management Plan as tribes to be consulted with in the county. A copy of the NEARNG's letter is included in Appendix A.

### **4.9 Socioeconomics**

The following subsections identify and describe the basic attributes and resources associated with the human environment surrounding the proposed AFRC. These data are presented in order to provide an understanding of the socioeconomic forces that have shaped, and continue to shape, the area. Socioeconomic data shown in this section are presented at the city, county, and state levels to analyze baseline socioeconomic conditions in the context of local, regional, and state trends. Data have been collected from previously published documents issued by Federal, state, and local agencies and from state and national databases (for example, the U.S. Census Bureau). This section provides the framework necessary to determine the significance of the estimated socioeconomic impacts from the proposed AFRC at Columbus.

#### **4.9.1 ECONOMIC DEVELOPMENT**

The top three industry sectors within Platte County include manufacturing (27.9 percent); education, health, and social services (14.7 percent); and retail trade (11.1 percent) (U.S. Census Bureau 2007). The top three occupations within Platte County include management, professional, and related (30.7 percent); sales and office occupations (23.7 percent); and production, transportation and material moving occupations (22.3 percent) (U.S. Census Bureau 2007). Agriculture-related activities are approximately 6.0 percent of industry and 1.2 percent of occupations in Platte County.

The top three industry sectors within the city of Columbus include manufacturing (30.4 percent); education, health care, and social assistance (15.6 percent); and retail trade (11.4 percent) (U.S. Census Bureau 2007). The top three occupations within the city of Columbus include management, professional, and related (29.6); sales and office occupations (24.1 percent); and production, transportation and material moving occupations (22.2 percent) (U.S. Census Bureau 2007).

Per capita income statistics from the 2005-2007 U.S. Census estimates indicate that Platte County and the city of Columbus have lower per capita incomes compared with the state of Nebraska. The median household income of Platte County is higher than the state median, and the median household income of Columbus is lower than the state median. Poverty levels are also lower in the project area, compared to the state percent of population below poverty level. Platte County and Columbus both had unemployment levels below the state's unemployment rate for the same timeframe. The nationwide unemployment rate was estimated at 4.2 percent at that time (U.S. Census Bureau 2007). Table 4-3 presents selected regional income statistics.

**Table 4-3.** Regional Income.

Area	Number of Households	Median Household Income (\$)	Per Capita Income (\$)	Population Below Poverty Level (%)	Unemployment Rate (%)
State of Nebraska	698,163	46,954	23,900	11.3	3.4
Platte County	12,639	47,937	23,113	8.9	3.1
City of Columbus	8,845	44,880	23,128	9.7	3.2

Source: U.S. Census Bureau 2007

#### 4.9.2 DEMOGRAPHICS

Platte County is the tenth largest county within the state of Nebraska. The county grew by 6.2 percent between 1990 and 2000. Platte County has 15 cities and towns within its borders. Columbus is the largest city within the county. Population within Columbus increased between 1990 and 2000 at a rate of 7.7 percent (USDC 1990, U.S. Census Bureau 2000).

According to the 2005-2007 U.S. Census estimates, Platte County and the city of Columbus have a lower percentage of individuals with a post-secondary degree compared with the state of Nebraska. The percentage of individuals with a high school diploma or higher is also lower than the state's percentage for both Platte County and Columbus. Table 4-4 provides selected statistics of educational attainment for persons 25 years and older for 2005 through 2007.

**Table 4-4.** Regional Educational Attainment of Persons 25 Years and Older.

Area	No Diploma (%)	High School Graduates (%)	Post-Secondary Graduates (%)
State of Nebraska	10.6	89.4	27.2
Platte County	10.7	89.3	20.1
City of Columbus	11.6	88.4	22.6

Source: U.S. Census Bureau 2007

### 4.9.3 HOUSING

Owner occupancy rates in Platte County and the city of Columbus are higher than state rates (U.S. Census Bureau 2007). Platte County as a whole had a higher owner-occupancy rate compared to the state and Columbus. Median home value for Columbus is lower than the state median and similar to Platte County median home values. Table 4-5 presents selected housing characteristics.

**Table 4-5.** Regional Housing Characteristics.

Area	Housing Units Available	Occupied	Owner-Occupied (%)	Median Value	Median Home Mortgage	Renter-Occupied (%)	Median Contract Rent
State of Nebraska	773,383	698,163	67.3	\$118,200	\$1,188	32.7	\$610
Platte County	12,639	12,639	75.2	\$101,900	\$990	24.8	\$483
City of Columbus	9,206	8,845	70.0	\$103,400	\$980	30.0	\$483

Source: U.S. Census Bureau 2007

The Columbus Fire Department is located at 1459 26th Avenue. The Columbus Fire Department provides fire and emergency services to the citizens of Columbus. The Fire Department is a combination of paid and volunteer firefighters. There are 12 full-time firefighters and approximately 60 volunteer firefighters. Four full-time paid firefighters are on duty at any given time (Yindrick 2009).

The Columbus Police Department headquarters is located at 2419 14th Street. The Police Department provides police protection through three regular patrol shifts. The Police Department staff has 50 people with 36 officers (Columbus 2008).

Columbus has one hospital, Columbus Community Hospital, located at 3020 18<sup>th</sup> Street. Other hospitals/medical centers near the project area include Butler County Health Care Center (about 20 miles away in David City, Nebraska), Alegent Health Memorial Hospital (about 21 miles away in Schuyler, Nebraska), and Annie Jeffrey Memorial County Health Center (about 24 miles away in Osceola, Nebraska). Columbus Community Hospital has 40 beds, Butler County Health Care Center has 25 beds, Alegent Health Memorial Hospital has 18 beds, and Annie Jeffrey Memorial County Health Center has 21 beds (Hospital-Data 2008).

#### 4.9.4 PROTECTION OF CHILDREN

Because children may suffer disproportionately from environmental health risks and safety risks, EO 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*) was issued on April 21, 1997. EO 13045 was intended to prioritize the identification and assessment of environmental health risks and safety risks that may affect children and to ensure that Federal agencies' policies, programs, activities, and standards address environmental risks and safety risks to children.

The percentage of the population under age 18 in Columbus is higher than the percentage under 18 in the state as a whole. The percentage of population under 18 years of age in Platte County is lower than the state average (see Table 4-6).

**Table 4-6.** Total Population Versus Population Under Age 18.

Area	Total Population	Population Under 18	% Population under 18
State of Nebraska	1,764,131	445,855	25.3
Platte County	31,477	8,328	24.7
City of Columbus	21,504	5,763	26.8

Source: U.S. Census Bureau 2007

Primary education facilities located in Columbus include seven public elementary schools (grades K-5), one public middle school (grades 6-8), and two public high schools (grades 9-12). Columbus has six private elementary/middle schools and one private high school. Columbus has one institute of higher learning, the Columbus Beauty School. All of the schools are located more than 1 mile away from the Johannes Parcel.

The Columbus Parks and Recreation Department has a total of 14 sporting facilities. Columbus also has a water park and aquatic center for family recreation, and two golf courses (Columbus 2008). None of these recreational areas are within a 2-mile radius of the Johannes Parcel.

Future plans for the area surrounding the Johannes Parcel include development of a city park and use by the school district (AGEISS Inc. 2008). The city has plans to put in a city park in the western portion of the Johannes Parcel. Adjacent to the western border of the future park development is a 20-acre parcel purchased by the school district.

#### 4.10 Environmental Justice

Environmental justice is the fair treatment for people of all races, cultures, and incomes, regarding the development and implementation (or lack thereof) of environmental laws, regulations, and policies. EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, directs Federal agencies to address environmental and human health conditions in minority and low-income communities. A memorandum from former President Clinton concerning EO 12898 stated that Federal agencies would collect and analyze information concerning a project's impacts on

minorities or low-income groups when required by NEPA. If such investigations find that minority or low-income groups experience a disproportionate adverse impact, then avoidance or mitigation measures are necessary. This section describes the distribution of minority and low-income populations for Platte County and the city of Columbus.

**4.10.1 GEOGRAPHIC DISTRIBUTION OF MINORITY POPULATIONS**

Based upon the 2005-2007 U.S. Census Bureau estimates, populations in Platte County and the city of Columbus have a low number of minorities compared to the state of Nebraska. The project site is located in the city of Columbus, which has a minority population similar to that of Platte County as a whole. Table 4-7 presents regional demographics by race for the areas of Columbus, Platte County, and the state of Nebraska. For the city of Columbus, the major reported ancestries include German (49.5 percent), Polish (15.2 percent), Irish (12.1 percent), and English ancestries (8.3 percent) (U.S. Census Bureau 2007).

**Table 4-7.** Regional Population by Race.

Area	All Individuals	White (%)	African-American (%)	American Indian and Alaska Native (%)	Asian or Pacific Islander (%)	Other Race (%)	Hispanic or Latino*
State of Nebraska	1,764,131	88.9	4.0	0.8	1.7	2.8	7.3
Platte County	31,477	94.3	0.0	0.9	1.0	2.8	9.7
City of Columbus	21,504	92.0	0.0	1.0	1.5	4.1	No Data

Source: U.S. Census Bureau 2007

\* Persons of Hispanic or Latino origin may be of any race.

**4.10.2 GEOGRAPHIC DISTRIBUTION OF LOW-INCOME POPULATIONS**

Detailed information regarding income for the city of Columbus residents, as determined from the 2007 U.S. Census, is provided in Table 4-3. In 2007, an estimated 9.7 percent of residents in the city of Columbus were at or below the poverty level, which is greater than the percentage of individuals living in poverty in Platte County (8.9 percent), but lower than the state of Nebraska (11.3 percent). In 2007, the poverty guideline for a family of four was an annual income of \$20,650 in the 48 contiguous states and Washington, D.C.; for a family of three, it was \$17,170 (U.S. Department of Health and Human Services 2007). The national rate for people living in poverty was 13.3 percent during the period of 2005-2007 (U.S. Census Bureau 2007).

As shown in Table 4-3, the median household income within the city of Columbus was lower than that for Platte County and the state.

**4.11 Infrastructure**

This section describes both utilities and the existing transportation conditions at and surrounding the Johannes Parcel. In general, the utility systems are classified as

distribution and collection systems including electrical, natural gas, telecommunications, potable water, sanitary sewer, storm drainage, and solid waste disposal.

#### **4.11.1 ENERGY SOURCES AND TELECOMMUNICATIONS**

Electrical power to Columbus is provided by the Loup Power District. Power is delivered to Columbus from three sources, which include the Columbus Hydro station, Columbus West substation, and the Columbus East substation. Power is fed throughout Columbus by a 34,500-volt grid through the city and surrounding industrial areas. A 12,470-volt distribution system provides power to Columbus and the surrounding area (NPPD 2007).

Natural gas service to Columbus is supplied by Black Hills Energy through a 4-inch line at 80 pounds per square inch (psi) (NPPD 2009). Liquid propane and fuel oil are available in Columbus from several local oil companies.

Telecommunications services are provided by Frontier Communications the local exchange carrier, which is capable of providing T3 and T1 connections, Ethernet, ISDN, frame relay, voice mail, and service to all long distance companies (NPPD 2009).

#### **4.11.2 POTABLE WATER SUPPLY, WASTEWATER TREATMENT, STORM WATER SYSTEM, AND SOLID WASTE DISPOSAL**

Potable water is supplied by the city of Columbus municipal water system. The system consists of 12 groundwater supply wells, two water towers, two reservoirs, and two stand pipes for storage. Chemical disinfection, pH adjustment, and anti-cavity chemical addition occur prior to distribution. Water pressure throughout the distribution system is approximately 50-55 psi. The municipal water is clear with a hardness of 332 ppm. Combined pumping capacity of the system is 18,000 GPM (Columbus 2009a). The Columbus municipal water system is rated at 20,200,000 gallons per day (GPD), with an average capacity of 5,200,000 GPD. Storage capacity is 5,915,000 gallons (NPPD 2009).

Wastewater collection and treatment is provided by the city of Columbus municipal collection and treatment system. The collection system consists of approximately 20 lift stations and more than 185 miles of sewer lines. The proposed AFRC would likely connect to the city of Columbus municipal collection system along East 14th Avenue, to the west of the Johannes Parcel. The existing 12-inch sanitary line along East 14th Avenue is a dead end line currently serving only the Johannes Subdivision to the northwest of the Johannes Parcel (Imus 2009; Thomerson 2009). Treatment is accomplished by activated sludge treatment consisting of an extended aeration oxidation ditch, two final clarifiers, flow splitter structure, pump station, and biosolids processing facility (NPPD 2007). Biosolids treatment is accomplished through a Bioset Process in which lime stabilization and pasteurization produce Class "A" biosolids. Processed biosolids are sold or land applied. Wastewater treatment rated capacity is 7,500,000 GPD with an average daily demand of 3,600,000 GPD (Columbus 2009a).

The city of Columbus operates a separate storm water collection system.

Solid waste disposal services are provided by the city of Columbus through operation of a transfer station. Solid waste is transported to the Northeast Nebraska Solid Waste Coalition Landfill, approximately 45 miles northeast of Columbus. Recycling opportunities are provided by the Columbus Recycle Center, which include 24-hour-a-day drop chutes. Confidential document shredding and bulk paper waste services are also provided.

#### **4.11.3 TRANSPORTATION**

The principal four-lane arteries for travel to and from Columbus, Nebraska are U.S. Highway 81 (north-south) and U.S. Highway 30 (east-west). Both U.S. Highways 81 and 30 are included in Nebraska Department of Roads (NDOR) designated four-lane expressway system. Interstate 80 is accessible approximately 51 miles south of Columbus. NDOR maintains a construction and maintenance office in Columbus, with the district headquarters maintained in Norfolk, Nebraska, approximately 45 miles north of Columbus (NDOR 2009). The most recent available NDOR traffic count data from 2006 indicates an average daily traffic count of approximately 1,250 vehicles along north-south East 14<sup>th</sup> Avenue to the west of the Johannes Parcel; and a daily traffic count of approximately 29,855 vehicles on U.S. Highway 30 to the south of the Johannes Parcel (NDOR 2007).

A main line of the Union Pacific Railroad serves Columbus with approximately 75 to 85 freight trains per day. BNSF operates a branch line in Columbus to serve Archer Daniels Midland. Furthermore, a short-line railroad is operated in Columbus and communities north by Nebraska Central Railroad. Daily passenger rail service is provided by Amtrak to Lincoln, Nebraska 75 miles southeast of Columbus; with service east to Chicago, Illinois and west to Denver, Colorado and San Francisco/Oakland, California (NPPD 2007). Many licensed motor carriers are based in Nebraska, with many operating terminals in Columbus serving businesses throughout the United States, with worldwide connections.

The Columbus Municipal Airport is located in Columbus and is utilized by commercial and private aircraft; with air express and air freight service available. Commercial air service is available approximately 75 miles to the southeast at the Lincoln Airport and approximately 85 miles to the east at the Omaha Eppley Airfield (NPPD 2007). Daily passenger and package bus service to Columbus is provided by Arrow Stage Line with one bus daily to Omaha, Nebraska. From Omaha connections are made to major cities throughout the United States. Charter bus service is also available to Columbus. Dial-a-ride public transportation within the city of Columbus is provided by Columbus Area Transit. Local taxi service is provided to Columbus by City Taxi (NPPD 2007).

#### **4.12 Hazardous and Toxic Substances**

This section describes the existing conditions of hazardous and toxic substances at the Johannes Parcel.

#### 4.12.1 HAZARDOUS MATERIALS

Hazardous materials are those useable corrosive, toxic, flammable, and reactive materials that, when spilled or released, are dangerous to public health or the environment.

Hazardous materials are required to be handled, managed, treated, or stored properly by trained personnel under the following regulations: Department of Transportation Hazardous Materials, 49 CFR 172.101; EPA, 40 CFR 260 et seq; and Occupational Safety and Health Administration Hazardous Communication, 29 CFR 1900.1200 and 29 CFR 1926.59.

A Phase I Environmental Site Assessment was completed to assist the NEARNG and USAR in evaluating environmental risk relative to the Johannes Parcel, Columbus, Nebraska. The Phase I site assessment was conducted in conformance with American Society of Testing and Materials (ASTM) Standards for Phase I Environmental Site Assessments (ASTM E 1527-05). The Phase I site assessment included environmental regulatory records review, visual site inspection of the Johannes Parcel, and interviews with applicable persons. Relevant issues included site history, adjacent properties and their potential impact on the Johannes Parcel, above and underground storage tanks (AST and UST), CERCLA/Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) involvement and spills, presence of asbestos-containing materials, radon, polychlorinated byphenyls, lead-based paint, lead in drinking water, wetlands, unexploded ordnance, use of pesticides, and environmental impact studies. Radon findings are discussed in Section 4.3 of this EA.

The Phase I site assessment noted there were no ASTs or USTs on the site; however two leaking AST sites were identified approximately 0.4 mile southeast of the site at the Appleton Electric Site on East 23<sup>rd</sup> Street. The leaking ASTs are located downgradient of the Johannes Parcel and their status is no further action. Three leaking UST (LUST) sites were identified within 0.5 mile of the Johannes Parcel and include: OL Scheer Hardware (23<sup>rd</sup> Street), Sperry New Holland (East 23<sup>rd</sup> Street), and Citizens Bank (East 14<sup>th</sup> Avenue). The OL Scheer Hardware LUST is located cross gradient approximately 0.4 mile south-southwest of the Johannes Parcel. The Sperry New Holland LUST is located downgradient approximately 0.4 mile southeast of the Johannes Parcel. The Citizens Bank LUST is located cross gradient approximately 0.4 mile southwest of the Johannes Parcel. The status of all three LUST sites is no further action (OLSSON 2008). One CERCLA facility was identified in the Environmental Site Assessment as in the vicinity of the Johannes Parcel. The site assessment identified the EGS Electric Group Site at 2500 East 23<sup>rd</sup> Avenue, Columbus, Nebraska; approximately 0.4 mile southeast of the Johannes Parcel. The EGS Electric Group Site is located downgradient of the Johannes Parcel and its status is no further remedial action. Of the unmapped sites identified in the site assessment, one appears to be in the vicinity of the Johannes Parcel; however it is likely located east of Columbus, Nebraska and on the south side of U.S. Highway 30 most likely cross or downgradient of the Johannes Parcel.

Annual Water Quality Reports for the Columbus municipal water system for the period of January 1, 2004 through December 31, 2007 indicated no lead was present (Columbus

2009a). The proposed AFRC would obtain potable water from the Columbus municipal water system.

A recognized environmental condition is the “presence or likely presence of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property” (OLSSON 2008). No recognized environmental conditions were identified on the Johannes Parcel by the site assessment. Furthermore, there were no historic recognized environmental conditions identified on the Johannes Parcel by the site assessment. The text of the Phase I Environmental Site Assessment is provided in Appendix B.

#### **4.12.2 HAZARDOUS WASTE DISPOSAL**

Hazardous wastes are generated when substances, usually originating as hazardous materials, are disposed of and are no longer useable or recyclable and exhibit hazardous characteristics as defined by the EPA. Commercial hazardous waste transport, storage, and disposal providers serve the Columbus area for non-household generators.

## 5.0 ENVIRONMENTAL CONSEQUENCES

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

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

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

Potential impacts from the Preferred Alternative (Alternative 1) and the No Action Alternative (Alternative 2) are described below for each resource area. The ROI or study area for each resource category is the Johannes Parcel and immediate surroundings, unless stated otherwise in the individual resource category discussion.

### 5.1 Land Use

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

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

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

- Substantially degrade the natural or constructed physical features in the area of the Johannes Parcel that provide the area its character and value as an environmental resource. The magnitude of any impact would be primarily determined by the number of viewers affected, viewer sensitivity to changes, distance of viewing, and compatibility with existing land use.

### **5.1.1 IMPACTS OF ALTERNATIVE 1 – PREFERRED ALTERNATIVE**

Potential impacts to land use from the Preferred Alternative would not be significant even though land use would change under the Preferred Alternative and the impacts, therefore, would be long-term. Under the Preferred Alternative, there would be an irretrievable commitment of the land resources required for construction and operation of new facilities; this commitment of land resources is irreversible because the land likely cannot be completely restored to its original condition and other uses would be precluded during the time the land is being used for the proposed use. However, although changes in the viewscape would occur under the Preferred Alternative, the land use is consistent with peripheral land uses, including the residential area to the northwest.

Although the Johannes Parcel is currently used for agriculture production, the zoning in the area is rural residential. The city of Columbus considers the proposed AFRC a public safety facility and as such it would not violate existing rural residential zoning restrictions (Lindahl 2009b). The city plans to convert approximately 13 acres of the proposed 33-acre parcel into a city park that also would be consistent with surrounding residential land use. Agriculture production for this area would be lost, but the loss of prime farmland would be minimal, less than 15 acres. Additionally, the Johannes Parcel is considerably smaller than the average size farm in Platte County, which is 435 acres (USDA 2002), and impacts to agricultural production for Platte County would be minimal.

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

Construction of the AFRC at the Johannes Parcel would result in some long-term visual impacts to the site. Buildings and parking areas would replace agricultural land. The AFRC would be visible from residences to the north and northwest and to travelers on Highway 30 and East 14<sup>th</sup> Avenue. Aesthetic resources would be considered during the design of the facilities. Force protection measures would be incorporated as practicable into the design of the facility, such that aesthetically-unappealing bollards would be unnecessary.

Operations at the AFRC would result in minor adverse aesthetic impacts, including increased traffic and nighttime light on weekends when the facilities are in use. The maximum number of individuals reporting on any given weekend is expected to be approximately 87; only one full-time personnel would commute to the site daily.

### **5.1.2 IMPACTS OF ALTERNATIVE 2 – NO ACTION ALTERNATIVE**

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

## **5.2 Air Quality**

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.

### **5.2.1 IMPACTS OF ALTERNATIVE 1 – PREFERRED ALTERNATIVE**

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

Long-term impacts associated with operation of the proposed AFRC training building and related facilities are not likely to occur. No fueling facilities, USTs, or paint booths would be required for the Proposed Action. The standard HVAC system would not significantly contribute to air emissions. The vehicles associated with the weekend use of these facilities by the estimated 87 reservists would not be expected to result in significant impacts to air quality because the incremental increase in motor vehicle emissions would not increase criteria pollutant concentrations above the NAAQS. Similarly, the emissions produced by the approximately 152 vehicles and five trailers kept on-site would not be high enough to increase regional criteria pollutant concentrations above the NAAQS.

Because Platte County and the Columbus vicinity are in Zone 1 for radon potential, the potential exists for radon screening levels greater than 4 pCi/L within any building in the region. This radon level is a county-wide potential based on regional factors such as geologic provinces. For buildings with long-term radon concentrations between 4 and 10 pCi/L, action should be taken to reduce exposures within the next few years. For buildings with long-term radon concentrations between 10 and 100 pCi/L, action should

be taken to reduce exposures within the next few months. According to recommendations by the DHHS, radon concentrations can be reduced by sealing radon entry routes into the building, creating better ventilation in any basement, or providing exhaust appliances such as furnaces with their own source of intake air. The DHHS recommends that the most effective method for reducing radon levels is by installing a fan-driven ventilation system under a building. These systems remove the radon from below the foundation before it enters the building, draws it into pipes, and exhausts the radon into the atmosphere. Because the structures described by the Proposed Action would have concrete floor slabs, the potential build-up of radon gas would be less than if the structures contained a basement. The Army would incorporate radon-reducing measures into the construction of the AFRC to minimize potential exposure to Army personnel. Radon monitoring would also be conducted on a regular basis.

### **5.2.2 IMPACTS OF ALTERNATIVE 2 – NO ACTION ALTERNATIVE**

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

However, because the radon level described in Section 5.2.1 of this EA is a county-wide potential based on regional factors such as geologic provinces, radon monitoring should be considered at the existing facilities being used by the NEARNG and USAR in Columbus. Routine replacement and renovation actions could occur to existing facilities under the No Action Alternative as described in Section 3.3.2 of this EA.

## **5.3 Noise**

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

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

### **5.3.1 IMPACTS OF ALTERNATIVE 1 – PREFERRED ALTERNATIVE**

Potential noise impacts from the Preferred Alternative would not be significant. Minor adverse short-term noise impacts related to the construction of the AFRC and associated facilities would occur. Residences to the north and northwest could experience short-term noise impacts during construction, including noise from large machinery such as bulldozers, graders, excavators, dump trucks, and cement trucks. This type of construction equipment generates noise levels of about 85 dBA at 50 feet (Hanson et al. 2006). The nearest residence is located approximately 320 feet away. Noise and sound levels would be typical of new construction activities and would be intermittent. Impacts of construction noise could be reduced by employing BMPs, such as confining

construction activities to normal working hours and employing noise-controlled construction equipment to the extent possible. NEARNG will require the contractor to operate equipment Monday-Friday 7:30 a.m. to 5 p.m. and not on holidays. NEARNG will also follow any city noise ordinances.

Once the facilities become operational, adverse long-term noise impacts would not be expected from their day-to-day use. Once facilities are constructed, noise would be generated by facility operations and the vehicles associated with these facilities. Aside from negligible HVAC-related noise, the facilities would not generate high levels of noise themselves. During power outages, operation of emergency generators could cause minor, short-term noise impacts. Most noise is usually created by vehicles associated with these facilities, including organizational vehicles used for training and operations, government and private delivery vehicles, commuter shuttles or buses, and personal vehicles used for commuting purposes. The noise impact created by facility and vehicle operations would not be significant. Under the Proposed Action, approximately 132 personnel would use the AFRC. However, as a reserve center, the majority of these individuals would report to the site on weekends and not all would report on the same weekend. The maximum number of individuals reporting on any given weekend is expected to be approximately 87 and only one full-time personnel would commute to the site daily. This use would contribute negligible amounts of traffic noise to the current environment.

### **5.3.2 IMPACTS OF ALTERNATIVE 2 – NO ACTION ALTERNATIVE**

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

## **5.4 Geology and Soils**

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.

### **5.4.1 IMPACTS OF ALTERNATIVE 1 – PREFERRED ALTERNATIVE**

Potential impact to geology and soils from the Preferred Alternative would not be significant. The total site improvements associated with the AFRC would occupy approximately 20 acres of the 33-acre parcel, resulting in approximately 4 acres of impervious surface. The impact of this on the regional infiltration at the vicinity of the site would not be significant.

Damaging earthquakes are infrequent in Nebraska as discussed in Section 4.5.1. However, risk from future earthquakes that may result in serious damage as a result of collapsing walls, chimneys of buildings, or other structures should not be ignored. In order to avoid the risks to buildings associated with earthquakes, the state of Nebraska

adopted the International Building Code, 2000 Edition (IBC). The IBC was adopted in 2003 and went into effect in January 2004 (Nebraska 2008). The AFRC would have to be constructed in accordance with the seismic requirements identified in the IBC.

The construction of the AFRC would involve excavation, grading, and movement of heavy equipment in the Johannes Parcel. These activities would disturb the surface soil, thereby increasing the potential for soil erosion by wind and runoff. Wind and water erosion of soil can be mitigated by implementing BMPs. The construction contract would state that BMPs for erosion control, top soil management, and revegetation would be required. 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 low-lying areas, and could also include scheduling construction activities for periods of lowest precipitation. Once the facilities are operational and new vegetation is in place, additional erosion of topsoil would be minimal and would be limited or mitigated through adherence to a storm water management plan.

The construction of the AFRC would affect approximately 15 acres of prime farmland. The NRCS was consulted regarding the prime farmland. The NRCS scored the value of the prime farmland at the Preferred Alternative Site as low, considering zoning, the size of the parcel, and other factors; therefore, no significant impact would occur to prime farmland and no mitigation is required. The letter sent to the NRCS and the NRCS rating form are provided in Appendix A.

#### **5.4.2 IMPACTS OF ALTERNATIVE 2 – NO ACTION ALTERNATIVE**

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

### **5.5 Water Resources**

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.

### **5.5.1 IMPACTS OF ALTERNATIVE 1 – PREFERRED ALTERNATIVE**

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. Additional runoff to surface water would occur as a result of an increase in impermeable surfaces associated with buildings, roads, and parking lots. Storm water collection measures incorporated in the design of the proposed AFRC would direct runoff to a storm water management area for temporary storage and eventual discharge to surface water. If required, a Storm Water Pollution Prevention Plan (SWPPP) will address the management of runoff water at the Preferred Alternative site.

Local groundwater recharge would be slightly reduced due to the addition of impermeable surfaces and subsequent reduction of infiltrating precipitation. However, the reduction in groundwater recharge would not have a significant impact on the regional groundwater supply. The Preferred Alternative would not result in a local increase of groundwater use, as a groundwater supply well would not be necessary to supply water to the proposed AFRC.

Construction of the proposed AFRC would result in disturbance of ground cover, increasing potential soil erosion due to runoff. Implementation of BMPs and standard construction erosion control measures would reduce potential impacts of eroded soil carried to surface water via runoff, such that they would not be significant.

Activities at the proposed AFRC would not impact groundwater quality beneath or in the area surrounding the proposed AFRC. Potential nonpoint storm water impacts would not be significant with implementation of BMPs, and as should be described in a SWPPP if required. Point discharges of wastewater are prohibited by existing National Pollution Discharge Elimination System requirements under the CWA. Spills would be mitigated using BMPs or procedures identified in a Spill Prevention Control and Countermeasures Plan, if required, to reduce potential impacts to surface water or groundwater. Therefore no impact to groundwater resources would result from the Preferred Alternative.

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

### **5.5.2 IMPACTS OF ALTERNATIVE 2 – NO ACTION ALTERNATIVE**

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

## 5.6 Biological Resources

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.

### 5.6.1 IMPACTS OF ALTERNATIVE 1 – PREFERRED ALTERNATIVE

Potential impacts to biological resources from the Preferred Alternative would not be significant. The Preferred Alternative would entail a change in the allocation of the land resources from agriculture to light industrial. No naturally occurring habitat would be affected since the site is currently under crop production.

Wildlife currently using the agricultural crop for forage would be able to find other agricultural crop forage. Minimal short-term impacts to wildlife would result from disturbance from construction of the new facilities. The Preferred Alternative would not cause adverse impacts to any federally-listed threatened or endangered species, for no such species are known to occur on the site. However, listed bird species are known to breed and nest in the areas around the Platte River and can potentially use the wetland areas surrounding the Johannes Parcel. BMPs to reduce impacts of construction noise and debris during critical migration periods in the area should be implemented. The USFWS concurred with the assessment that no federally endangered or threatened species would be impacted, nor would adverse modification to federally designated critical habitat occur from the Proposed Action (Appendix A). The Nebraska Game and Parks Commission also determined that the Proposed Action would not cause any adverse effects on resources within the agencies' areas of concern (Appendix A).

### 5.6.2 IMPACTS OF ALTERNATIVE 2 – NO ACTION ALTERNATIVE

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

## 5.7 Cultural Resources

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.

### **5.7.1 IMPACTS OF ALTERNATIVE 1 – PREFERRED ALTERNATIVE**

With concurrence from the State Historic Preservation Office, the Army will not complete a Phase I Cultural Survey at the Preferred Alternative site (see Appendix A). The State Historic Preservation Office determined no NRHP-eligible, potentially eligible, or listed historic archaeological properties occur at or near the site. A Memorandum for the Record describing tribal consultation for this EA is also included in Appendix A.

If, during construction, any potential historic or archaeological resource is uncovered or Native American human remains, associated funerary objects, sacred objects, or objects of cultural patrimony are discovered, the Cultural Resources Manager for the NEARNG would be contacted, in accordance with NEARNG's typical standard operating procedures from its Integrated Cultural Resources Management Plan for the accidental discovery of archaeological resources or Native American artifacts.

### **5.7.2 IMPACTS OF ALTERNATIVE 2 – NO ACTION ALTERNATIVE**

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

## **5.8 Socioeconomics**

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

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

### **5.8.1 IMPACTS OF THE PREFERRED ACTION ALTERNATIVE**

Potential socioeconomic impacts from the Preferred Alternative would not be significant. Socioeconomic impacts are discussed below in terms of construction of a new AFRC and operating the AFRC as a training facility for NEARNG and USAR units.

The economic impacts of the construction phase of the Proposed Action were estimated using the Economic Impact Forecast System (EIFS) model, a computer based economic tool that calculates multipliers to estimate the direct and indirect impacts resulting from a given action. Changes in spending and employment associated with the construction represent the direct impacts of the action. Based on the input data and calculated multipliers, the model estimates changes in sales volume, income, employment, and population in the ROI, accounting for the direct and indirect impacts of the action. For purposes of this analysis, a change is considered significant if it falls outside the historical range of ROI economic variation. To determine the historical range of economic variation, the EIFS model calculates a rational threshold value (RTV) profile for the ROI. This analytical process uses historical data for the ROI and calculates fluctuations in sales volume, income, employment, and population patterns. The historical extremes for the ROI become the thresholds of significance (i.e., the RTVs) for social and economic change. If the estimated impact of an action falls above the positive RTV or below the negative RTV, the impact is considered to be significant. For this analysis, the ROI is Platte County, Nebraska and the change in local expenditures refers to the estimated construction spending for the new Columbus AFRC (\$9,300,000).

Based on the EIFS model, the Proposed Action would generate about 43 direct and 53 indirect jobs in the economic ROI during construction activities. This increase in employment would represent a 0.41 percent increase in the region's employment levels and would fall significantly short of the positive RTV of 5.18 percent to make any significant positive difference. It should be noted that the increased employment and any other economic benefits associated with construction would only be short-term and would be spread out over the lifespan of the project construction. The Proposed Action would also generate positive changes in the other economic indicators estimated by the EIFS model, including a 1.95 percent increase in sales volume, and a 0.43 percent increase in regional personal income. However, these increases are well below the positive RTVs for their respective categories, and not considered significant. The EIFS model output for the proposed BRAC actions at Columbus is provided in Appendix C.

Incoming personnel under the Proposed Action would be from one NEARNG unit and ten USAR units. Units would be at the new Columbus AFRC for weekend training only, resulting in no influx of personnel on a permanent basis into the ROI beyond one permanent administrative personnel. The facility would serve about 132 personnel on a rotating basis, mostly on weekends. The maximum expected use of the new facility would be about 87 members per weekend. On training weekends, reservists would either commute to the AFRC or stay in local hotels. No significant economic impact in the ROI would be expected during the operations phase of the Proposed Action.

Children would not be disproportionately affected, as the Johannes Parcel is not in the vicinity of areas where children are prevalent (i.e., schools, parks, or recreational areas). Future plans for areas adjacent to the proposed AFRC do, however, include areas where children may be present during operating hours of the AFRC. There would be no environmental health and safety risks that might disproportionately affect children, because children would be restricted from the areas proposed for construction and operation of the AFRC.

## **5.8.2 IMPACTS OF THE NO ACTION ALTERNATIVE**

Under the No Action Alternative, no construction and no increased revenue through military spending for the general area would occur.

## **5.9 Environmental Justice**

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

### **5.9.1 IMPACTS OF THE PREFERRED ACTION ALTERNATIVE**

The city of Columbus had a significantly lower percentage of minorities than the state of Nebraska. Median household income and per capita income for both Columbus and Platte County are lower than the state median; however, poverty levels and unemployment of both the county and city are also lower than the state's (Table 4-3). This is indicative of a higher-income area. Given that minority populations are lower than state levels and poverty levels and unemployment are lower than the state as a whole, no disproportionate adverse impacts to disadvantaged segments of the population are anticipated under the Preferred Alternative.

Regional construction businesses would likely build the proposed AFRC. Hiring regional businesses that may employ minority and low-income workers would provide jobs for these workers within the region. This would constitute a minor, short-term positive impact to minority and low-income populations. However, the extent of this benefit would be dependent upon the degree to which minority or low-income persons are employed in these activities.

There would be no environmental justice impacts at Columbus or in the surrounding area, as impacts from the Proposed Action identified in this EA would not be localized or placed primarily on minority and/or low-income populations.

### **5.9.2 IMPACTS OF THE NO ACTION ALTERNATIVE**

Under the No Action Alternative, no construction and no increased revenue through military spending for the general area would occur.

## **5.10 Infrastructure**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Change existing levels of safety.

### **5.10.1 IMPACTS OF ALTERNATIVE 1 – PREFERRED ALTERNATIVE**

Potential impacts to infrastructure from the Preferred Alternative would not be significant. The new AFRC would be built to LEED Silver standards. The incorporation of green building design principles will help to promote energy efficiency and reduce operational maintenance costs throughout the life of the AFRC.

**Energy Sources and Telecommunications** – Electrical service and natural gas service are readily available throughout Columbus and of sufficient capacity to meet the needs of the proposed AFRC on the Johannes Parcel. Extension of the utilities from the site boundary would likely be necessary. Fuel oil is available for the Johannes Parcel; however, it would likely not be required as natural gas service is preferred and available. Telecommunication services are also available throughout Columbus to meet the needs of the proposed AFRC.

**Potable Water Supply, Wastewater Treatment, Storm Water System, and Solid Waste Disposal** – Potable water is available throughout Columbus of sufficient capacity to meet the needs of the proposed AFRC at the Johannes Parcel. Wastewater collection sanitary mains are available throughout Columbus and are of sufficient capacity to meet the needs of the proposed AFRC at the Johannes Parcel. The proposed AFRC would likely connect to the municipal sanitary collection system to the west of the Johannes Parcel along East 14th Avenue. This 12-inch, dead end line serves only the Johannes Subdivision to the northwest of the Johannes Parcel, and currently operates well below capacity (Thomerson 2009). Additionally, the lift station at the intersection of East 14th Avenue and U.S. Highway 30, to which this line discharges, is scheduled for upgrading during the 2009 construction season (Thomerson 2009). Storm water would be intercepted by an onsite conveyance system consisting of pipes and ditches or channels and likely conveyed to an onsite retention pond prior to discharge off-site. Solid waste collection and recycling services are sufficient to meet the needs of the proposed AFRC.

**Transportation** – Traffic flow along U.S. Highway 30 and East 14<sup>th</sup> Avenue would be minimally impacted by the increased traffic associated with construction and operation of the proposed AFRC, primarily on weekends.

### **5.10.2 IMPACTS OF ALTERNATIVE 2 – NO ACTION ALTERNATIVE**

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

## **5.11 Hazardous and Toxic Substances**

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

- Result in noncompliance with applicable Federal and state regulations; or

- Increase the amounts generated or procured hazardous materials beyond current permitted capacities or management capabilities.

### **5.11.1 IMPACTS OF ALTERNATIVE 1 – PREFERRED ALTERNATIVE**

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

The proposed AFRC would consist primarily of administrative and office areas. Hazardous materials use would be minimal for routine facilities maintenance and would likely be limited to cleaning products, paint, and adhesives. General purpose detergents would be used on the wash platform. Handling and storage of any hazardous materials would follow applicable regulations and label precautions. Facility plans are yet to be finalized, however it is anticipated that an oil/water separator (OWS) would be included in the maintenance bays and the vehicle wash platform would likely flow through an OWS.

Small volumes of hazardous wastes would be generated by operation of the AFRC and could include used cleaning products, unused paints, unused adhesives, and used light bulbs. Additionally, periodic cleaning of OWS may result in limited amounts of waste oil, waste grease, and heavy sediments. Although no vehicle fluid changes would occur at the proposed AFRC, the possibility of limited volumes of waste fluids resulting from vehicle use is a possibility. Waste vehicle fluids could include gasoline, diesel, hydraulic fluid, antifreeze, and motor oil.

Minor amounts of hazardous wastes generated from the Preferred Alternative would be temporarily stored on site and collected by a contracted commercial transport, storage, and disposal operator for transportation to permitted disposal sites which may include special industrial landfills, hazardous waste facilities, and licensed recyclers. The Defense Reutilization and Marketing Office operated by the NEARNG would dispose all hazardous wastes generated at the Proposed AFRC in Columbus (Huenink 2009).

An emergency standby generator and associated fuel source (diesel or liquid propane) supply would likely be used to ensure continued operation of the proposed AFRC while operating on emergency power.

The Preferred Alternative would likely result in negligible short- and long-term adverse impacts, based on the potential for small spills and the overall use of hazardous materials and disposal of hazardous wastes from the proposed AFRC.

### **5.11.2 IMPACTS OF ALTERNATIVE 2 – NO ACTION ALTERNATIVE**

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

## 5.12 Mitigation Summary

Mitigation measures are actions required for the specific purpose of reducing the significant environmental impacts of implementing a proposed or alternative action. An EA may specify mitigation measures that, if implemented, would prevent significant impacts that would otherwise require an environmental impact statement. No mitigation measures are required for the Proposed Action discussed in this EA because resulting impacts would not meet the significance criteria described for each resource in Section 5.0; that is, the impacts would not be significant. Additionally, BMPs where applicable for each affected resource, would be initiated to minimize impacts.

## 5.13 Cumulative Impacts

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

The scope of the cumulative impacts analysis involves evaluating impacts to environmental resources by geographic extent of the impacts and the time frame in which the impacts are expected to occur. NEPA requires the analysis of cumulative environmental impacts of a Proposed Action, or set of actions, on resources that may often be manifested only at the cumulative level, such as traffic congestion, air quality, noise, biological resources, cultural resources, socioeconomic conditions, utility system capacities, and others. In order to fully capture the cumulative impacts associated with the Proposed Action, the “checklist” analysis methodology set forth in *Considering Cumulative Effects under the NEPA* (CEQ 1997) was used. This qualitative cumulative impacts analysis is based on the potential impacts of the Proposed Action when added to similar impacts from other projects in the region. The ROI considered for the cumulative impacts analysis is Platte County and the city of Columbus in particular.

Past, present, and reasonably foreseeable actions are identified first, followed by the cumulative impacts that could result from these actions when combined with the Proposed Action. Irreversible and irretrievable commitments of resources are also discussed in this section.

### 5.13.1 PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS

Agriculture and manufacturing have largely defined Columbus and Platte County. As one of the largest manufacturing areas in the region, past actions involve the conversion of open space and farmland to industrial areas. Although the number of farms in Platte County has decreased over the last 50 years, acreage of farmland has increased within the

county. Average farm size in 1950 was approximately 207 acres with a total of 430,000 acres in farmland (USDC 1950). By 2002, the average farm was 435 acres with approximately 434,529 acres in agriculture (USDA 2002). Although power is a major industry for Platte County and the city of Columbus, construction of the hydroelectric plants, levees, hydroelectric impoundments, as well as diversions of the Loupe and Platte Rivers constitute long-term past action impacts to the local environment. More recent past actions include the development of manufacturing plants such as FlexCon, a plastics manufacturing plant.

Present actions around the proposed site are limited. The residential subdivision to the north of the site has limited room for development of additional houses (Lindahl 2009a). A new 70-unit motel is under construction south of the proposed site, in the industrial area.

According to the city of Columbus engineer, few future projects are expected in the area except for possibly a school to the west of the Johannes Parcel (Lindahl 2009a) and a city park. While the AFRC would occupy 20 of the 33 acres at the Johannes parcel, the remaining acreage is planned to be converted to a city park. Both of these uses constitute a change in land use and a long-term commitment of land; however, no conceptual plans have been developed yet for either the school or the park. Land use changes to the south of the Johannes Parcel are expected to occur in the form of commercial development but no plans currently exist (OLSSON 2005). This area is defined as the northeast growth center for the city that can accommodate significant housing development as well as a regional commercial center (OLSSON 2005).

### **5.13.2 CUMULATIVE IMPACTS SUMMARY**

The Proposed Action when combined with past, present, and future projects would result in cumulative long-term adverse impacts to land use, aesthetics, biological resources, geology and soils, water resources, noise, and transportation from the conversion of additional land resources from rural/agriculture to urban and industrial. Cumulative impacts would not be significant as described below.

Although development of the AFRC would be compatible with surrounding land use, cumulative long-term adverse impacts to land use from the conversion of the land resources from agriculture to industrial would be an irreversible use of the land. Coupled with the change in land use are the impacts on water, biological, and soil resources. The Proposed Action would cause short-term incremental adverse impacts to soils. Cumulative adverse impacts would occur from the combination of the Proposed Action with future actions through soil loss and erosion. Additionally, prime farmland would be lost, but the impacts would not be significant due to the size of the area relative to average size farms in Platte County. The site area is approximately 20 acres, with a 12-acre city park to the west, and the future site of a middle school to the west of the park on undetermined acreage. As farmland or other rural areas become converted, wildlife would have to find other movement corridors, thus potentially altering home range and dispersal behaviors, as well as other areas to meet food and shelter requirements. BMPs to reduce impacts of construction noise and debris during critical bird migration periods

in the area would help minimize impacts to nesting species in the nearby wetlands. The impacts to biological resources would be reduced as a portion of the Johannes Parcel is converted to a park increasing natural vegetation in the area. As land becomes less permeable due to construction of structures, water resources can be impacted. With development of the Preferred Alternative, there would be no measurable reduction in surface water quality or availability and groundwater recharge would be slightly decreased but would not impact significantly the regional water supply.

The Proposed Action would provide some short-term beneficial impacts to the city of Columbus and potentially Platte County, as new jobs were created. Additional foreseeable future projects will also provide short-term positive impacts with additional jobs from construction and potential economic benefits from tourists and patrons to the new hotel.

Traffic flow along U.S. Highway 30 and East 14<sup>th</sup> Avenue would be impacted by the increased traffic associated with construction and operation of the proposed AFRC, primarily on weekends, as well as the establishment of the city park, hotel, and school in the vicinity. These additional facilities and structures will not only increase pedestrian traffic in the area, but also the number of children in the area. Children may be disproportionately affected (safety risks) as the addition of a city park and school would increase the potential for children to be present during operating hours of the AFRC.

The construction and operation of the AFRC at the Johannes Parcel would not cause significant impacts to the resources described in Chapter 4 and outlined above. The AFRC is compatible with the current land use and future zoning surrounding the Johannes Parcel and cumulative impacts would not be significant due to the current and near future lack of development in the area. In addition, the Army's decision to use LEED Silver design standards will provide a more sustainable facility and will serve as a model for other new construction projects in the area that may be inspired to consider "green building" features. The incorporation of green building design principles will help to promote water and energy efficiency, reduce impacts to human health and productivity, and reduce operational maintenance costs throughout the life of the AFRC.

Under the No Action Alternative, cumulative impacts would not occur, as construction of the AFRC would not occur.

Environmental impacts for all resources potentially affected by the Proposed Action when combined with the past, present, and reasonably foreseeable projects in the area are summarized in Table 5-1.

**Table 5-1.** Potential Cumulative Impacts Associated with the Proposed Action.

Potential Impact Area	Proposed Action	Past Actions	Other Present Actions	Future Actions	Cumulative Impact
Land Use	S, L	L	L	L	L
Air Quality	S	L	S	S	L
Noise	S	L	S	S	L

Potential Impact Area	Proposed Action	Past Actions	Other Present Actions	Future Actions	Cumulative Impact
Soils	L <sup>-</sup>	L <sup>-</sup>	L <sup>-</sup>	L <sup>-</sup>	L <sup>-</sup>
Water Resources	S <sup>-</sup>	L <sup>-</sup>	S <sup>-</sup>	S <sup>-</sup>	L <sup>-</sup>
Biological Resources	S <sup>-</sup>	L <sup>-</sup>	S <sup>-</sup>	S <sup>-</sup>	L <sup>-</sup>
Cultural Resources	*	*	*	*	*
Socioeconomics	S <sup>+</sup>	L <sup>+</sup>	L <sup>+</sup>	S <sup>+</sup>	L <sup>+</sup>
Environmental Justice	S <sup>+</sup>	*	*	*	*
Infrastructure	S <sup>-</sup>	L <sup>-</sup>	L <sup>-</sup>	L <sup>-</sup>	L <sup>-</sup>
Hazardous and Toxic Substances	S <sup>-</sup> , L <sup>-</sup>	L <sup>-</sup>	S <sup>-</sup> , L <sup>-</sup>	S <sup>-</sup> , L <sup>-</sup>	L <sup>-</sup>

S<sup>-</sup> short-term adverse impact

L<sup>-</sup> long-term adverse impact

\* no impact

S<sup>+</sup> short-term beneficial impact

L<sup>+</sup> long-term beneficial impact

Note: All identified impacts have been determined to be less than significant.

## **6.0 COMPARISON OF ALTERNATIVES AND CONCLUSIONS**

Direct, indirect, and cumulative impacts of the Preferred Alternative and the No Action Alternative have been considered. The evaluation performed within this EA concludes that there would be *no significant adverse impact*, either individually or cumulatively, to the local environment or quality of life as a result of the implementation of the Preferred Alternative, provided that BMPs specified in this EA are implemented. Positive impacts to the local socioeconomic environment would be anticipated. Therefore, the issuance of a FNSI is warranted, and preparation of an environmental impact statement is not required. Implementation of the No Action Alternative is not feasible because the BRAC actions are required by law to be implemented if the Army is able to acquire land suitable for the construction of the facilities.

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## **8.0 LIST OF PREPARERS**

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Cynthia Madden, Environmental Scientist  
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NRCS  
100 Centennial Mall N  
Lincoln, NE 68508

Mr. Steve Scheinost  
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USDA-NRCS  
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*Environmental Assessment for Construction of an  
Armed Forces Reserve Center and  
Implementation of BRAC 05 Recommendations at  
Columbus, Nebraska*

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*APPENDIX A*

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**CONSULTATION AND COORDINATION**

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## **APPENDIX A. CONSULTATION AND COORDINATION**

This appendix contains Interagency and Intergovernmental Coordination for Environmental Planning correspondence. The following letters sent by the Nebraska Military Department are included:

- Letter to the Nebraska State Historical Society, State Historic Preservation Office, dated December 17, 2008
- Letter to the U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS), dated December 17, 2008
- Letter to the Pawnee Nation of Oklahoma, dated December 17, 2008
- Letter to the Omaha Tribe of Oklahoma, dated December 17, 2008
- Letter to the U.S. Fish and Wildlife Service, dated December 17, 2008
- Letter to Nebraska Game and Parks Commission, dated December 17, 2008
- Letter to Nebraska Department of Environmental Quality, dated December 17, 2008

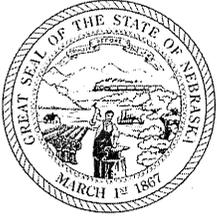
All letters sent by the Nebraska Military Department contained attachments showing the project location and an aerial photograph. Examples of these are shown as attachments to the letter to the USDA NRCS, dated December 17, 2008 which also contained an attachment for the Farmland Conversion Impact Rating form.

All responses received are also included in this appendix.

- Response received from the Natural Resources Conservation Service, including the Farmland Conversion Impact Rating Form, dated December 30, 2008
- Letter from the Nebraska State Historical Society, dated January 2, 2009
- Email from the U.S. Fish and Wildlife Service, dated March 10, 2009
- Letter from the Nebraska Game and Parks Commission, dated January 16, 2009

This appendix also contains a Memorandum for the Record from the Nebraska Military Department regarding tribal consultation, dated March 12, 2009.

# STATE OF NEBRASKA



Dave Heineman  
Governor

MILITARY DEPARTMENT  
Timothy J. Kadavy  
Director  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

December 17, 2008

Mr. Robert Puschendorf  
Deputy State Historic Preservation Officer  
Nebraska State Historical Society  
Post Office Box 82554  
Lincoln, Nebraska 68501

SUBJECT: Intergovernmental and Interagency Environmental Planning Consultation for Proposed Armed Forces Reserve Center in Columbus, Platte County, Nebraska

Dear Mr. Puschendorf,

The National Guard Bureau (NGB) and the Nebraska Army National Guard (NEARNG) are preparing environmental documentation for the proposed Armed Forces Reserve Center (AFRC) near Columbus, Platte County, Nebraska (**Attachment 1**) as part of the restructuring of military bases recommended by the Defense Base Closure and Realignment Act (BRAC). The AFRC would be located on approximately 33 acres of undeveloped farmland located north of East 23rd Street, approximately 0.25 mile east of the intersection of East 23rd Street and East 14th Avenue, approximately 3.25 miles east of Columbus, Nebraska. The proposed site, known as the Johannes Parcel, is shown in the aerial photograph in **Attachment 2** and does not contain any standing structures or buildings.

The proposed AFRC training facility (approximately 46,971 square feet) would house one NEARNG and 10 United States Army Reserve (USAR) units. Outside supporting facilities would include parking lots, a 100-square-foot flammable materials facility, a 300-square-foot controlled waste facility, 2,048-square-foot maintenance training work bays, 2,700-square-foot heated storage, fencing, sidewalks, outside lighting, access roads, facility sign, and a flagpole. Anti-terrorism/Force Protection (ATFP) safety and security regulation would be incorporated into the facility designs.

A cultural resource survey, to identify any historical properties in the project area, is being planned in accordance with the National Historic Preservation Act, its implementing authority 36 CFR 800 and the Section 106 Process. The results of this survey will be part of an Environmental Assessment (EA) document which will evaluate the environmental, cultural, and socioeconomic impacts associated with the proposed construction and operation of the Columbus AFRC, pursuant to the National Environmental Policy Act (NEPA) of 1969.

We look forward to and welcome your participation in this study. If possible, please respond on or before **January 16, 2009** to enable us to complete this phase of the project within the scheduled timeframe. Please direct any issues, questions, or concerns to Mr. Dustin Huenink, the Cultural Resources Liaison for the NEARNG, at 402-309-7469 or at:

CFMO Environmental  
ATTN: Mr. Dustin Huenink  
1300 Military Rd  
Lincoln, NE 68508

# STATE OF NEBRASKA

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Dave Heineman  
*Governor*

**MILITARY DEPARTMENT**  
**Timothy J. Kadavy**  
*Director*  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

Thank you for taking the time to review this letter. The NEARNG looks forward to working with you on this and future projects.

Sincerely,

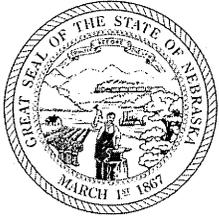
A handwritten signature in black ink, appearing to read "Larry Vrtiska".

LARRY A. VRTISKA  
CIV, NEARNG  
Environmental Program Manager

**ATTACHMENTS:**

- 1 – Columbus, Nebraska Location Map
- 2 – Aerial Photograph of the Proposed Site

# STATE OF NEBRASKA



Dave Heineman  
Governor

MILITARY DEPARTMENT  
Timothy J. Kadavy  
Director  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

17 December 2008

Steve Chick, State Conservationist  
USDA/NRCS  
100 Centennial Mall N  
Lincoln, NE 68508

On September 8, 2005, the Defense Base Realignment and Closure (BRAC) Commission recommended that certain realignment actions occur at Columbus, Nebraska. These recommendations were approved by the President on September 23, 2005, and forwarded to Congress. The BRAC Commission made the following recommendations concerning Columbus, Nebraska:

*"Close the United States Army Reserve Center in Columbus, NE, and relocate units to a new Armed Forces Reserve Center in Columbus, NE. The new AFRC shall have the capability to accommodate Nebraska National Guard units from the Nebraska ARNG Readiness Center, Columbus, NE, if the State decides to relocate those National Guard units."*

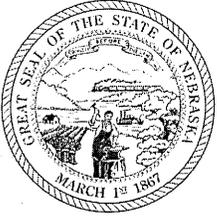
To implement these recommendations, the Army National Guard (ARNG) proposes to construct a new Armed Forces Reserve Center (AFRC) and related facilities at a site near Columbus, Nebraska to support the changes in force structure. The project area is located 0.25 miles east of the intersection of East 23<sup>rd</sup> Street and East 14<sup>th</sup> Avenue, approximately 3.5 miles east of Columbus, Platte County, Nebraska. The facility would employ approximately one permanent full-time personnel, and would serve about 132 personnel on a rotating basis, mostly on weekends. The maximum expected use of the new facility would be about 87 members per weekend, and there would be parking for 90 privately-owned vehicles.

The Army's Preferred Alternative is to construct the AFRC and associated facilities at the Johannes Parcel which consists of approximately 33 acres of rectangular-shaped farmland located 0.25 miles east of the intersection of East 23<sup>rd</sup> Street and East 14<sup>th</sup> Avenue, approximately 3.5 miles east of Columbus, Nebraska (**Attachment 1**). The site is currently privately owned with conveyance to the State of Nebraska by donation or 50 year no-cost lease, planned prior to construction of the AFRC. Based on the environmental site assessment (2008), the predominant soil types of the site are Grigston silt loam and Gibbon Gayville silty clay loams. Further preliminary analyses using the Natural Resources Conservation Service (NRCS) web soil survey identified the site to be composed of approximately 31% Grigston silt loam (wet substratum, rarely flooded), 14% Grigston silt loam (rarely flooded), and 55% Gibbon-Gayville silty clay loams (occasionally flooded). The Grigston silt loam (wet substratum, rarely flooded) and Grigston silt loam (rarely flooded) represent approximately 15 acres of prime farmland. The other acreage is not considered to be prime farmland.

Although the Farmland Protection Policy Act (7 CFR Parts 657 and 658) exempts urban lands and lands that are used for national defense purposes [7 CFR 658.3(b)] from the provisions of the Farmland Protection Policy Act, we are including a Farmland Conversion Impact Rating Form (**Attachment 2**), for your consideration. The purpose of this letter and attached evaluation form is to request input and/or concurrence from the NRCS on the proposed federal action. An aerial photograph is enclosed that indicates the area of the proposed project (**Attachment 3**).

# STATE OF NEBRASKA

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Dave Heineman  
*Governor*

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1300 Military Road  
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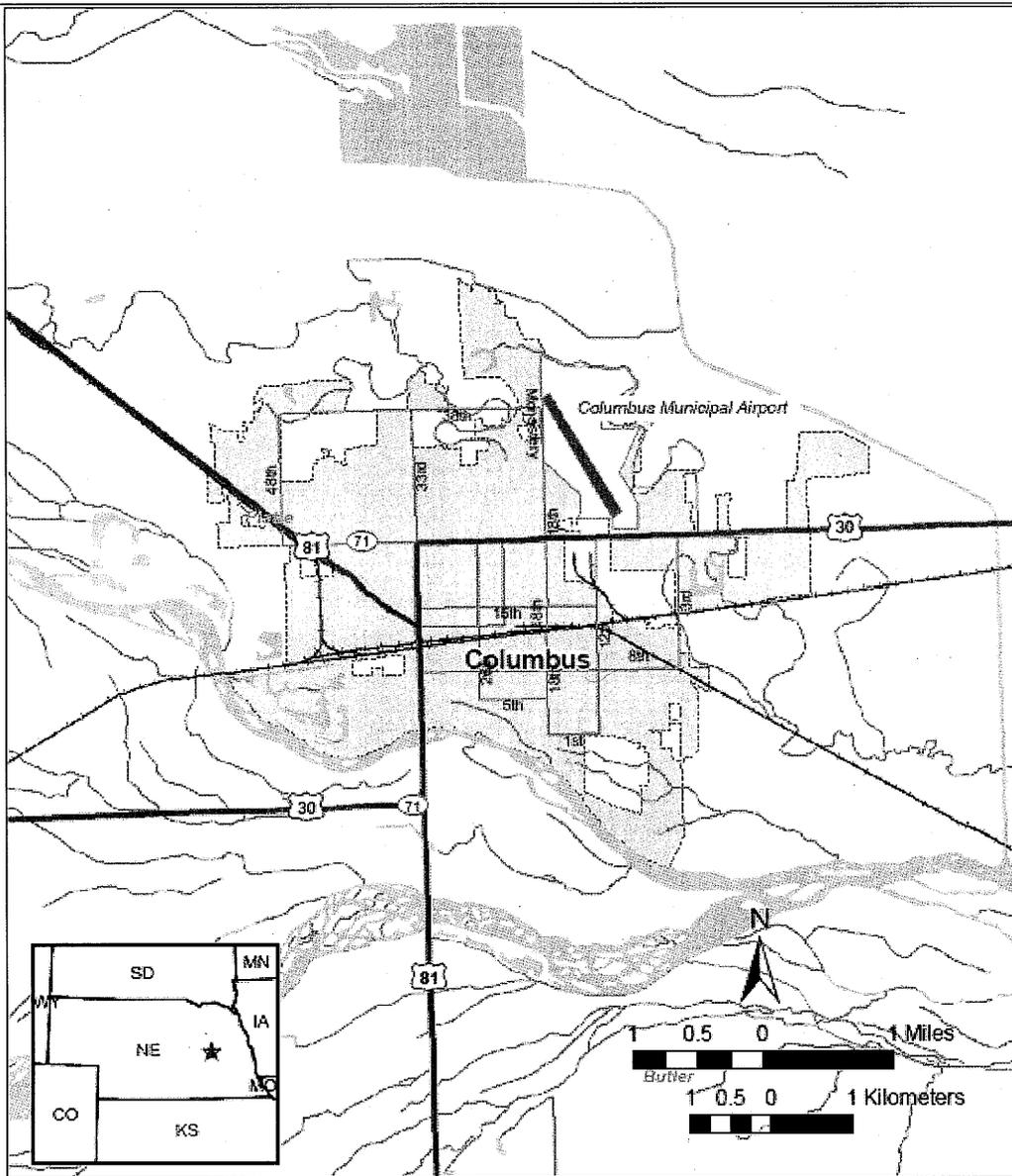
We feel the conversion of the 33 acres at the Johannes Parcel is consistent with the Farmland Protection Policy Act and look forward to your assessment. AGEISS Inc. has been contracted by the NEARNG to assist with the environmental documentation. If you have questions or require further information, please contact Ms. Cynthia Bell at (210) 533-5100 or [cyndib@ageiss.com](mailto:cyndib@ageiss.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Larry Vrtiska".

LARRY A. VRTISKA  
CIV, NEARNG  
Environmental Program Manager

Attachment 1: Columbus, Nebraska Location Map  
Attachment 2: Farmland Conversion Impact Rating  
Attachment 3: Aerial Photograph of the Proposed Site



Prepared for:

US Army Corps of Engineers, Mobile District

Attachment 1:

Columbus, Nebraska – Location Map

U.S. Department of Agriculture

# FARMLAND CONVERSION IMPACT RATING

<b>PART I (To be completed by Federal Agency)</b>	Date Of Land Evaluation Request 12/12/08
Name Of Project Armed Forces Reserve Center	Federal Agency Involved U.S. Army Corps of Engineers
Proposed Land Use Armed Forces training facility	County And State Platte County, Nebraska

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

<b>PART III (To be completed by Federal Agency)</b>	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	33.0			
B. Total Acres To Be Converted Indirectly	0.0			
C. Total Acres In Site	33.0	0.0	0.0	0.0

<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				

<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b> Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)	0	0	0	0
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<b>PART VI (To be completed by Federal Agency)</b> Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points				
1. Area In Nonurban Use	15	5			
2. Perimeter In Nonurban Use	10	8			
3. Percent Of Site Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	0			
5. Distance From Urban Builtup Area	15	0			
6. Distance To Urban Support Services	15	0			
7. Size Of Present Farm Unit Compared To Average	10	0			
8. Creation Of Nonfarmable Farmland	10	10			
9. Availability Of Farm Support Services	5	5			
10. On-Farm Investments	20	0			
11. Effects Of Conversion On Farm Support Services	10	0			
12. Compatibility With Existing Agricultural Use	10	0			
<b>TOTAL SITE ASSESSMENT POINTS</b>	160	48	0	0	0

<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)	100	0	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)	160	48	0	0	0
<b>TOTAL POINTS (Total of above 2 lines)</b>	260	48	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Reason For Selection:

## STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 – Federal agencies involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form.

Step 2 – Originator will send copies A, B and C together with maps indicating locations of site(s), to the Natural Resources Conservation Service (NRCS) local field office and retain copy D for their files. (Note: NRCS has a field office in most counties in the U.S. The field office is usually located in the county seat. A list of field office locations are available from the NRCS State Conservationist in each state).

Step 3 – NRCS will, within 45 calendar days after receipt of form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland.

Step 4 – In cases where farmland covered by the FPPA will be converted by the proposed project, NRCS field offices will complete Parts II, IV and V of the form.

Step 5 – NRCS will return copy A and B of the form to the Federal agency involved in the project. (Copy C will be retained for NRCS records).

Step 6 – The Federal agency involved in the proposed project will complete Parts VI and VII of the form.

Step 7 – The Federal agency involved in the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA and the agency's internal policies.

## INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

**Part I:** In completing the "County And State" questions list all the local governments that are responsible for local land controls where site(s) are to be evaluated.

**Part III:** In completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities) that will cause a direct conversion.

**Part VI:** Do not complete Part VI if a local site assessment is used.

Assign the maximum points for each site assessment criterion as shown in § 658.5 (b) of CFR. In cases of corridor-type projects such as transportation, powerline and flood control, criteria #5 and #6 will not apply and will, be weighed zero, however, criterion #8 will be weighed a maximum of 25 points, and criterion #11 a maximum of 25 points.

Individual Federal agencies at the national level, may assign relative weights among the 12 site assessment criteria other than those shown in the FPPA rule. In all cases where other weights are assigned relative adjustments must be made to maintain the maximum total weight points at 160.

In rating alternative sites, Federal agencies shall consider each of the criteria and assign points within the limits established in the FPPA rule. Sites most suitable for protection under these criteria will receive the highest total scores, and sites least suitable, the lowest scores.

**Part VII:** In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, adjust the site assessment points to a base of 160. Example: if the Site Assessment maximum is 200 points, and alternative Site "A" is rated 180 points:

Total points assigned Site A =  $\frac{180}{200} \times 160 = 144$  points for Site "A."

Maximum points possible    200

### **Site Assessment Scoring for the Twelve Factors Used in FPPA**

The Site Assessment criteria used in the Farmland Protection Policy Act (FPPA) rule are designed to assess important factors other than the agricultural value of the land when determining which alternative sites should receive the highest level of protection from conversion to non agricultural uses.

Twelve factors are used for Site Assessment and ten factors for corridor-type sites. Each factor is listed in an outline form, without detailed definitions or guidelines to follow in the rating process. The purpose of this document is to expand the definitions of use of each of the twelve Site Assessment factors so that all persons can have a clear understanding as to what each factor is intended to evaluate and how points are assigned for given conditions.

In each of the 12 factors a number rating system is used to determine which sites deserve the most protection from conversion to non-farm uses. The higher the number value given to a proposed site, the more protection it will receive. The maximum scores are 10, 15 and 20 points, depending upon the relative importance of each particular question. If a question significantly relates to why a parcel of land should not be converted, the question has a maximum possible protection value of 20, whereas a question which does not have such a significant impact upon whether a site would be converted, would have fewer maximum points possible, for example 10.

The following guidelines should be used in rating the twelve Site Assessment criteria:

**1. How much land is in non-urban use within a radius of 1.0 mile from where the project is intended?**

More than 90 percent:	15 points
90-20 percent:	14 to 1 points
Less than 20 percent:	0 points

This factor is designed to evaluate the extent to which the area within one mile of the proposed site is non-urban area. For purposes of this rule, "non-urban" should include:

- Agricultural land (crop-fruit trees, nuts, oilseed)
- Range land
- Forest land
- Golf Courses
- Non paved parks and recreational areas
- Mining sites
- Farm Storage
- Lakes, ponds and other water bodies
- Rural roads, and through roads without houses or buildings
- Open space
- Wetlands
- Fish production
- Pasture or hayland

Urban uses include:

- Houses (other than farm houses)
- Apartment buildings
- Commercial buildings
- Industrial buildings
- Paved recreational areas (i.e. tennis courts)
- Streets in areas with 30 structures per 40 acres
- Gas stations

- Equipment, supply stores
- Off-farm storage
- Processing plants
- Shopping malls
- Utilities/Services
- Medical buildings

In rating this factor, an area one-mile from the outer edge of the proposed site should be outlined on a current photo; the areas that are urban should be outlined. For rural houses and other buildings with unknown sizes, use 1 and 1/3 acres per structure. For roads with houses on only one side, use one half of road for urban and one half for non-urban.

The purpose of this rating process is to insure that the most valuable and viable farmlands are protected from development projects sponsored by the Federal Government. With this goal in mind, factor S1 suggests that the more agricultural lands surrounding the parcel boundary in question, the more protection from development this site should receive. Accordingly, a site with a large quantity of non-urban land surrounding it will receive a greater number of points for protection from development. Thus, where more than 90 percent of the area around the proposed site (do not include the proposed site in this assessment) is non-urban, assign 15 points. Where 20 percent or less is non-urban, assign 0 points. Where the area lies between 20 and 90 percent non-urban, assign appropriate points from 14 to 1, as noted below.

Percent Non-Urban Land within 1 mile	Points
90 percent or greater	15
85 to 89 percent	14
80 to 84 percent	13
75 to 79 percent	12
70 to 74 percent	11
65 to 69 percent	10
60 to 64 percent	9
55 to 59 percent	8
50 to 54 percent	7
45 to 49 percent	6
40 to 44 percent	5
35 to 39 percent	4
30 to 24 percent	3
25 to 29 percent	2
21 to 24 percent	1
20 percent or less	0

**2. How much of the perimeter of the site borders on land in non-urban use?**

More than 90 percent:	10 points
90 to 20 percent:	9 to 1 point(s)
Less than 20 percent:	0 points

This factor is designed to evaluate the extent to which the land adjacent to the proposed site is non-urban use. Where factor #1 evaluates the general location of the proposed site, this factor evaluates the immediate perimeter of the site. The definition of urban and non-urban uses in factor #1 should be used for this factor.

In rating the second factor, measure the perimeter of the site that is in non-urban and urban use. Where more than 90 percent of the perimeter is in non-urban use, score this factor 10 points. Where less than 20 percent, assign 0 points. If a road is next to the perimeter, class the area according to the

use on the other side of the road for that area. Use 1 and 1/3 acre per structure if not otherwise known. Where 20 to 90 percent of the perimeter is non-urban, assign points as noted below:

Percentage of Perimeter Bordering Land	Points
90 percent or greater	10
82 to 89 percent	9
74 to 81 percent	8
65 to 73 percent	7
58 to 65 percent	6
50 to 57 percent	5
42 to 49 percent	4
34 to 41 percent	3
27 to 33 percent	2
21 to 26 percent	1
20 percent or Less	0

**3. How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last ten years?**

More than 90 percent:	20 points
90 to 20 percent:	19 to 1 point(s)
Less than 20 percent:	0 points

This factor is designed to evaluate the extent to which the proposed conversion site has been used or managed for agricultural purposes in the past 10 years.

Land is being farmed when it is used or managed for food or fiber, to include timber products, fruit, nuts, grapes, grain, forage, oil seed, fish and meat, poultry and dairy products.

Land that has been left to grow up to native vegetation without management or harvest will be considered as abandoned and therefore not farmed. The proposed conversion site should be evaluated and rated according to the percent, of the site farmed.

If more than 90 percent of the site has been farmed 5 of the last 10 years score the site as follows:

Percentage of Site Farmed	Points
90 percent or greater	20
86 to 89 percent	19
82 to 85 percent	18
78 to 81 percent	17
74 to 77 percent	16
70 to 73 percent	15
66 to 69 percent	14
62 to 65 percent	13
58 to 61 percent	12
54 to 57 percent	11
50 to 53 percent	10
46 to 49 percent	9
42 to 45 percent	8
38 to 41 percent	7
35 to 37 percent	6
32 to 34 percent	5
29 to 31 percent	4
26 to 28 percent	3

23 to 25 percent	2
20 to 22 percent percent or Less	1
Less than 20 percent	0

**4. Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?**

Site is protected:	20 points
Site is not protected:	0 points

This factor is designed to evaluate the extent to which state and local government and private programs have made efforts to protect this site from conversion.

**State and local policies and programs to protect farmland include:**

**State Policies and Programs to Protect Farmland**

1. Tax Relief:

A. Differential Assessment: Agricultural lands are taxed on their agricultural use value, rather than at market value. As a result, farmers pay fewer taxes on their land, which helps keep them in business, and therefore helps to insure that the farmland will not be converted to nonagricultural uses.

1. Preferential Assessment for Property Tax: Landowners with parcels of land used for agriculture are given the privilege of differential assessment.
2. Deferred Taxation for Property Tax: Landowners are deterred from converting their land to nonfarm uses, because if they do so, they must pay back taxes at market value.
3. Restrictive Agreement for Property Tax: Landowners who want to receive Differential Assessment must agree to keep their land in - eligible use.

B. Income Tax Credits

Circuit Breaker Tax Credits: Authorize an eligible owner of farmland to apply some or all of the property taxes on his or her farmland and farm structures as a tax credit against the owner's state income tax.

C. Estate and Inheritance Tax Benefits

Farm Use Valuation for Death Tax: Exemption of state tax liability to eligible farm estates.

2. "Right to farm" laws:

Prohibits local governments from enacting laws which will place restrictions upon normally accepted farming practices, for example, the generation of noise, odor or dust.

3. Agricultural Districting:

Wherein farmers voluntarily organize districts of agricultural land to be legally recognized geographic areas. These farmers receive benefits, such as protection from annexation, in exchange for keeping land within the district for a given number of years.

4. Land Use Controls: Agricultural Zoning.

Types of Agricultural Zoning Ordinances include:

- A. Exclusive: In which the agricultural zone is restricted to only farm-related dwellings, with, for example, a minimum of 40 acres per dwelling unit.
- B. Non-Exclusive: In which non-farm dwellings are allowed, but the density remains low, such as 20 acres per dwelling unit.

Additional Zoning techniques include:

- A. Sliding Scale: This method looks at zoning according to the total size of the parcel owned. For example, the number of dwelling units per a given number of acres may change from county to county according to the existing land acreage to dwelling unit ratio of surrounding parcels of land within the specific area.

- B. Point System or Numerical Approach: Approaches land use permits on a case by case basis.

LESA: The LESA system (Land Evaluation-Site Assessment) is used as a tool to help assess options for land use on an evaluation of productivity weighed against commitment to urban development.

- C. Conditional Use: Based upon the evaluation on a case by case basis by the Board of Zoning Adjustment. Also may include the method of using special land use permits.

5. Development Rights:

- A. Purchase of Development Rights (PDR): Where development rights are purchased by Government action.

Buffer Zoning Districts: Buffer Zoning Districts are an example of land purchased by Government action. This land is included in zoning ordinances in order to preserve and protect agricultural lands from non-farm land uses encroaching upon them.

- B. Transfer of Development Rights (TDR): Development rights are transferable for use in other locations designated as receiving areas. TDR is considered a locally based action (not state), because it requires a voluntary decision on the part of the individual landowners.

6. Governor's Executive Order: Policy made by the Governor, stating the importance of agriculture, and the preservation of agricultural lands. The Governor orders the state agencies to avoid the unnecessary conversion of important farmland to nonagricultural uses.

7. Voluntary State Programs:

- A. California's Program of Restrictive Agreements and Differential Assessments: The California Land Conservation Act of 1965, commonly known as the Williamson Act, allows cities, counties and individual landowners to form agricultural preserves and enter into contracts for 10 or more years to insure that these parcels of land remain strictly for agricultural use. Since 1972 the Act has extended eligibility to recreational and open space lands such as scenic highway corridors, salt ponds and wildlife preserves. These contractually restricted lands may be taxed differentially for their real value. One hundred-acre districts constitute the minimum land size eligible.

Suggestion: An improved version of the Act would state that if the land is converted after the contract expires, the landowner must pay the difference in the taxes between market value for the land and the agricultural tax value which he or she had been

paying under the Act. This measure would help to insure that farmland would not be converted after the 10 year period ends.

- B. Maryland Agricultural Land Preservation Program: Agricultural landowners within agricultural districts have the opportunity to sell their development rights to the Maryland Land Preservation Foundation under the agreement that these landowners will not subdivide or develop their land for an initial period of five years. After five years the landowner may terminate the agreement with one year notice.

As is stated above under the California Williamson Act, the landowner should pay the back taxes on the property if he or she decides to convert the land after the contract expires, in order to discourage such conversions.

- C. Wisconsin Income Tax Incentive Program: The Wisconsin Farmland Preservation Program of December 1977 encourages local jurisdictions in Wisconsin to adopt agricultural preservation plans or exclusive agricultural district zoning ordinances in exchange for credit against state income tax and exemption from special utility assessment. Eligible candidates include local governments and landowners with at least 35 acres of land per dwelling unit in agricultural use and gross farm profits of at least \$6,000 per year, or \$18,000 over three years.

#### 8. Mandatory State Programs:

- A. The Environmental Control Act in the state of Vermont was adopted in 1970 by the Vermont State Legislature. The Act established an environmental board with 9 members (appointed by the Governor) to implement a planning process and a permit system to screen most subdivisions and development proposals according to specific criteria stated in the law. The planning process consists of an interim and a final Land Capability and Development Plan, the latter of which acts as a policy plan to control development. The policies are written in order to:
- prevent air and water pollution;
  - protect scenic or natural beauty, historic sites and rare and irreplaceable natural areas; and
  - consider the impacts of growth and reduction of development on areas of primary agricultural soils.
- B. The California State Coastal Commission: In 1976 the Coastal Act was passed to establish a permanent Coastal Commission with permit and planning authority. The purpose of the Coastal Commission was and is to protect the sensitive coastal zone environment and its resources, while accommodating the social and economic needs of the state. The Commission has the power to regulate development in the coastal zones by issuing permits on a case by case basis until local agencies can develop their own coastal plans, which must be certified by the Coastal Commission.
- C. Hawaii's Program of State Zoning: In 1961, the Hawaii State Legislature established Act 187, the Land Use Law, to protect the farmland and the welfare of the local people of Hawaii by planning to avoid "unnecessary urbanization". The Law made all state lands into four districts: agricultural, conservation, rural and urban. The Governor appointed members to a State Land Use Commission, whose duties were to uphold the Law and form the boundaries of the four districts. In addition to state zoning, the Land Use Law introduced a program of Differential Assessment, wherein agricultural landowners paid taxes on their land for its agricultural use value, rather than its market value.
- D. The Oregon Land Use Act of 1973: This act established the Land Conservation and Development Commission (LCDC) to provide statewide planning goals and guidelines.

Under this Act, Oregon cities and counties are each required to draw up a comprehensive plan, consistent with statewide planning goals. Agricultural land preservation is high on the list of state goals to be followed locally.

If the proposed site is subject to or has used one or more of the above farmland protection programs or policies, score the site 20 points. If none of the above policies or programs apply to this site, score 0 points.

**5. How close is the site to an urban built-up area?**

The site is 2 miles or more from an urban built-up area	15 points
The site is more than 1 mile but less than 2 miles from an urban built-up area	10 points
The site is less than 1 mile from, but is not adjacent to an urban built-up area	5 points
The site is adjacent to an urban built-up area	0 points

This factor is designed to evaluate the extent to which the proposed site is located next to an existing urban area. The urban built-up area must be 2500 population. The measurement from the built-up area should be made from the point at which the density is 30 structures per 40 acres and with no open or non-urban land existing between the major built-up areas and this point. Suburbs adjacent to cities or urban built-up areas should be considered as part of that urban area.

For greater accuracy, use the following chart to determine how much protection the site should receive according to its distance from an urban area. See chart below:

Distance From Perimeter of Site to Urban Area	Points
More than 10,560 feet	15
9,860 to 10,559 feet	14
9,160 to 9,859 feet	13
8,460 to 9,159 feet	12
7,760 to 8,459 feet	11
7,060 to 7,759 feet	10
6,360 to 7,059 feet	9
5,660 to 6,359 feet	8
4,960 to 5,659 feet	7
4,260 to 4,959 feet	6
3,560 to 4,259 feet	5
2,860 to 3,559 feet	4
2,160 to 2,859 feet	3
1,460 to 2,159 feet	2
760 to 1,459 feet	1
Less than 760 feet (adjacent)	0

**6. How close is the site to water lines, sewer lines and/or other local facilities and services whose capacities and design would promote nonagricultural use?**

None of the services exist nearer than 3 miles from the site	15 points
Some of the services exist more than one but less than 3 miles from the site	10 points
All of the services exist within 1/2 mile of the site	0 points

This question determines how much infrastructure (water, sewer, etc.) is in place which could facilitate nonagricultural development. The fewer facilities in place, the more difficult it is to develop an area. Thus, if a proposed site is further away from these services (more than 3 miles distance away), the site should be awarded the highest number of points (15). As the distance of the parcel of land to services decreases, the number of points awarded declines as well. So, when the site is equal to or further than 1 mile but less than 3 miles away from services, it should be given 10 points. Accordingly, if this distance is 1/2 mile to less than 1 mile, award 5 points; and if the distance from land to services is less than 1/2 mile, award 0 points.

Distance to public facilities should be measured from the perimeter of the parcel in question to the nearest site(s) where necessary facilities are located. If there is more than one distance (i.e. from site to water and from site to sewer), use the average distance (add all distances and then divide by the number of different distances to get the average).

Facilities which could promote nonagricultural use include:

- Water lines
- Sewer lines
- Power lines
- Gas lines
- Circulation (roads)
- Fire and police protection
- Schools

**7. Is the farm unit(s) containing the site (before the project) as large as the average-size farming unit in the county? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage of Farm Units in Operation with \$1,000 or more in sales.)**

As large or larger:	10 points
Below average: Deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more is below average	9 to 0 points

This factor is designed to determine how much protection the site should receive, according to its size in relation to the average size of farming units within the county. The larger the parcel of land, the more agricultural use value the land possesses, and vice versa. Thus, if the farm unit is as large or larger than the county average, it receives the maximum number of points (10). The smaller the parcel of land compared to the county average, the fewer number of points given. Please see below:

Parcel Size in Relation to Average County Size	Points
Same size or larger than average (100 percent)	10
95 percent of average	9
90 percent of average	8
85 percent of average	7
80 percent of average	6
75 percent of average	5
70 percent of average	4
65 percent of average	3
60 percent of average	2
55 percent of average	1
50 percent or below county average	0

State and local Natural Resources Conservation Service offices will have the average farm size information, provided by the latest available Census of Agriculture data

**8. If this site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?**

Acreage equal to more than 25 percent of acres directly converted by the project	10 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project	9 to 1 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project	0 points

This factor tackles the question of how the proposed development will affect the rest of the land on the farm. The site which deserves the most protection from conversion will receive the greatest number of points, and vice versa. For example, if the project is small, such as an extension on a house, the rest of the agricultural land would remain farmable, and thus a lower number of points is given to the site. Whereas if a large-scale highway is planned, a greater portion of the land (not including the site) will become non-farmable, since access to the farmland will be blocked; and thus, the site should receive the highest number of points (10) as protection from conversion.

**Conversion uses of the Site Which Would Make the Rest of the Land Non-Farmable by Interfering with Land Patterns**

Conversions which make the rest of the property nonfarmable include any development which blocks accessibility to the rest of the site. Examples are highways, railroads, dams or development along the front of a site restricting access to the rest of the property.

The point scoring is as follows:

<b>Amount of Land Not Including the Site Which Will Become Non-Farmable</b>	<b>Points</b>
25 percent or greater	10
23 - 24 percent	9
21 - 22 percent	8
19 - 20 percent	7
17 - 18 percent	6
15 - 16 percent	5
13 - 14 percent	4
11 - 12 percent	3
9 - 11 percent	2
6 - 8 percent	1
5 percent or less	0

**9. Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?**

All required services are available	5 points
Some required services are available	4 to 1 point(s)
No required services are available	0 points

This factor is used to assess whether there are adequate support facilities, activities and industry to keep the farming business in business. The more support facilities available to the agricultural

landowner, the more feasible it is for him or her to stay in production. In addition, agricultural support facilities are compatible with farmland. This fact is important, because some land uses are not compatible; for example, development next to farmland can be dangerous to the welfare of the agricultural land, as a result of pressure from the neighbors who often do not appreciate the noise, smells and dust intrinsic to farmland. Thus, when all required agricultural support services are available, the maximum number of points (5) are awarded. When some services are available, 4 to 1 point(s) are awarded; and consequently, when no services are available, no points are given. See below:

<b>Percent of Services Available</b>	<b>Points</b>
100 percent	5
75 to 99 percent	4
50 to 74 percent	3
25 to 49 percent	2
1 to 24 percent	1
No services	0

**10. Does the site have substantial and well-maintained on farm investments such as barns, other storage buildings, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?**

High amount of on-farm investment	20 points
Moderate amount of non-farm investment	19 to 1 point(s)
No on-farm investments	0 points

This factor assesses the quantity of agricultural facilities in place on the proposed site. If a significant agricultural infrastructure exists, the site should continue to be used for farming, and thus the parcel will receive the highest amount of points towards protection from conversion or development. If there is little on farm investment, the site will receive comparatively less protection. See-below:

<b>Amount of On-farm Investment</b>	<b>Points</b>
As much or more than necessary to maintain production (100 percent)	20
95 to 99 percent	19
90 to 94 percent	18
85 to 89 percent	17
80 to 84 percent	16
75 to 79 percent	15
70 to 74 percent	14
65 to 69 percent	13
60 to 64 percent	12
55 to 59 percent	11
50 to 54 percent	10
45 to 49 percent	9
40 to 44 percent	8
35 to 39 percent	7
30 to 34 percent	6
25 to 29 percent	5
20 to 24 percent	4
15 to 19 percent	3
10 to 14 percent	2
5 to 9 percent	1
0 to 4 percent	0

**11. Would the project at this site, by converting farmland to nonagricultural use, reduce the support for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?**

Substantial reduction in demand for support services if the site is converted	10 points
Some reduction in demand for support services if the site is converted	9 to 1 point(s)
No significant reduction in demand for support services if the site is converted	0 points

This factor determines whether there are other agriculturally related activities, businesses or jobs dependent upon the working of the pre-converted site in order for the others to remain in production. The more people and farming activities relying upon this land, the more protection it should receive from conversion. Thus, if a substantial reduction in demand for support services were to occur as a result of conversions, the proposed site would receive a high score of 10; some reduction in demand would receive 9 to 1 point(s), and no significant reduction in demand would receive no points.

Specific points are outlined as follows:

<b>Amount of Reduction in Support Services if Site is Converted to Nonagricultural Use</b>	<b>Points</b>
Substantial reduction (100 percent)	10
90 to 99 percent	9
80 to 89 percent	8
70 to 79 percent	7
60 to 69 percent	6
50 to 59 percent	5
40 to 49 percent	4
30 to 39 percent	3
20 to 29 percent	2
10 to 19 percent	1
No significant reduction (0 to 9 percent)	0

**12. Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of the surrounding farmland to nonagricultural use?**

Proposed project is incompatible with existing agricultural use of surrounding farmland	10 points
Proposed project is tolerable of existing agricultural use of surrounding farmland	9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland	0 points

Factor 12 determines whether conversion of the proposed agricultural site will eventually cause the conversion of neighboring farmland as a result of incompatibility of use of the first with the latter. The more incompatible the proposed conversion is with agriculture, the more protection this site receives from conversion. Therefore, if the proposed conversion is incompatible with agriculture, the site receives 10 points. If the project is tolerable with agriculture, it receives 9 to 1 points; and if the proposed conversion is compatible with agriculture, it receives 0 points.

## CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

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The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor-type site or design alternative for protection as farmland along with the land evaluation information.

For Water and Waste Programs, corridor analyses are not applicable for distribution or collection networks. Analyses are applicable for transmission or trunk lines where placement of the lines are flexible.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?

- |                          |                       |
|--------------------------|-----------------------|
| (2) More than 90 percent | (3) 15 points         |
| (4) 90 to 20 percent     | (5) 14 to 1 point(s). |
| (6) Less than 20 percent | (7) 0 points          |

(2) How much of the perimeter of the site borders on land in nonurban use?

- |                          |                   |
|--------------------------|-------------------|
| (3) More than 90 percent | (4) 10 point(s)   |
| (5) 90 to 20 percent     | (6) 9 to 1 points |
| (7) less than 20 percent | (8) 0 points      |

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?

- |                          |                      |
|--------------------------|----------------------|
| (4) More than 90 percent | (5) 20 points        |
| (6) 90 to 20 percent     | (7) 19 to 1 point(s) |
| (8) Less than 20 percent | (9) 0 points         |

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?

- |                       |           |
|-----------------------|-----------|
| Site is protected     | 20 points |
| Site is not protected | 0 points  |

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage of Farm Units in Operation with \$1,000 or more in sales.)

- |   |               |
|---|---------------|
| As large or larger  | 10 points     |
| Below average deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average | 9 to 0 points |

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

- |  |                  |
|--|------------------|
| Acreage equal to more than 25 percent of acres directly converted by the project         | 25 points        |
| Acreage equal to between 25 and 5 percent of the acres directly converted by the project | 1 to 24 point(s) |
| Acreage equal to less than 5 percent of the acres directly converted by the project      | 0 points         |

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?

All required services are available	5 points
Some required services are available	4 to 1 point(s)
No required services are available	0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

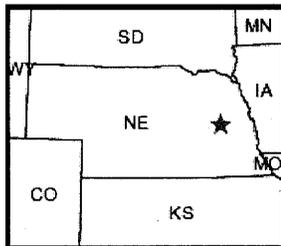
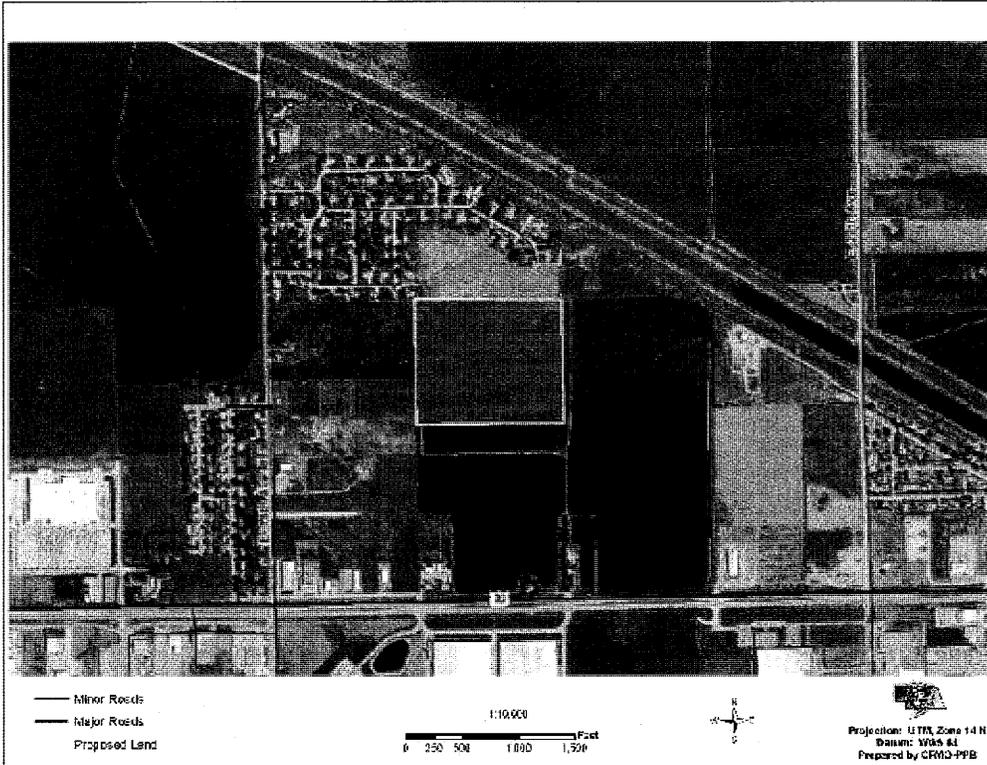
High amount of on-farm investment	20 points
Moderate amount of on-farm investment	19 to 1 point(s)
No on-farm investment	0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?

Substantial reduction in demand for support services if the site is converted	25 points
Some reduction in demand for support services if the site is converted	1 to 24 point(s)
No significant reduction in demand for support services if the site is converted	0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?

Proposed project is incompatible to existing agricultural use of surrounding farmland	10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland	9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland	0 points



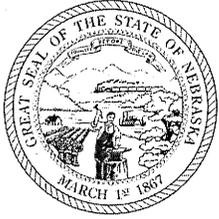
Prepared for:

US Army Corps of Engineers, Mobile District

Attachment 3:

Aerial Photograph of Johannes Parcel – Preferred Alternative

# STATE OF NEBRASKA



Dave Heineman  
Governor

MILITARY DEPARTMENT  
Timothy J. Kadavy  
Director  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

December 17, 2008

Mr. Francis Morris  
Pawnee Nation of Oklahoma  
Pawnee National Business Council  
Post Office Box 470  
Pawnee, Oklahoma 74058

Dear Mr. Morris,

The National Guard Bureau (NGB) and the Nebraska Army National Guard (NEARNG) are preparing environmental documentation for the proposed Armed Forces Reserve Center (AFRC) near Columbus, Platte County, Nebraska (**Attachment 1**) as part of the restructuring of military bases recommended by the Defense Base Closure and Realignment Act (BRAC). The AFRC would be located on approximately 33 acres of undeveloped farmland located north of East 23rd Street, approximately 0.25 mile east of the intersection of East 23rd Street and East 14th Avenue, approximately 3.25 miles east of Columbus, Nebraska. The proposed action would consist of construction of an AFRC training facility (46,971 square feet) and would house one NEARNG and 10 United States Army Reserve (USAR) units. The training facility would include administration, education, assembly, kitchen, library, learning center, vault, weapons simulator, maintenance training bays, and physical fitness areas for approximately 132 NEARNG and USAR personnel. Supporting facilities would include military and personally-owned vehicle parking, a 100-square-foot flammable materials facility, a 300-square-foot controlled waste facility, 2,048-square-foot maintenance training work bays, 2,700-square-foot heated storage, fencing, sidewalks, outside lighting, access roads, facility sign, and a flagpole. Anti-terrorism/Force Protection (ATFP) safety and security regulations would be incorporated into the facility designs. **Attachment 2** shows an aerial photograph of the proposed Columbus AFRC site.

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

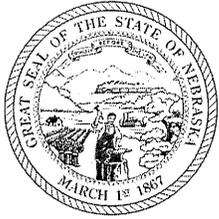
The NEARNG will conduct archaeological investigations at the proposed location for the Columbus AFRC to identify historic properties. The investigations are being conducted pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (Section 106) and the (16 USC 470 et seq.), Protection of Historic Properties (36 CFR Part 800), and Army Regulation 200-4 (Cultural Resources Management).

The NEARNG is requesting that you review the attached figures and determine if you would like to be considered a consulting party for the EA process. If so, please notify the NEARNG of your interest as soon as possible. If you are able to identify any historic significance in your review, please provide us with your findings as soon as possible.

If you respond that you would like to be a consulting party, the NEARNG will forward you a copy of the archaeological report and may request to initiate Section 106 consultation based on the results of the report and/or your response to this letter.

As per Army Regulation 200-4 and other state and federal guidelines, the NEARNG will protect information you provide regarding the existence of sacred or religious historic properties and the locations of Native American

# STATE OF NEBRASKA



Dave Heineman  
*Governor*

MILITARY DEPARTMENT  
Timothy J. Kadavy  
*Director*  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

archaeological sites and will not make that information available to the public during the NEPA or Section 106 consultation process.

We look forward to and welcome your participation in this study. If possible, please respond on or before **January 16, 2009** to enable us to complete this phase of the project within the scheduled timeframe. Please direct any issues, questions, or concerns to Mr. Dustin Huenink, the Native American Liaison for the NEARNG, at 402-309-7469 or at:

CFMO Environmental  
ATTN: Mr. Dustin Huenink  
1300 Military Rd.  
Lincoln, NE 68508

Thank you for taking the time to review this letter. The NEARNG looks forward to working with you on this and future projects.

Sincerely,

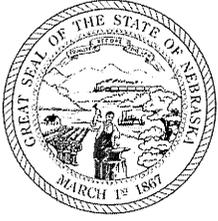
A handwritten signature in black ink, appearing to read "Larry Vrtiska".

LARRY A VRTISKA  
CIV, NEARNG  
Environmental Program Manager

#### ATTACHMENTS:

- 1 – Columbus, Nebraska Location Map
- 2 – Aerial Photograph of the Proposed Site

# STATE OF NEBRASKA



Dave Heineman  
Governor

MILITARY DEPARTMENT  
Timothy J. Kadavy  
Director  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

December 17, 2008

Mr. Mitchell Parker  
Omaha Tribe of Oklahoma  
Omaha Tribal Council  
Post Office Box 368  
Macy, Nebraska 68039

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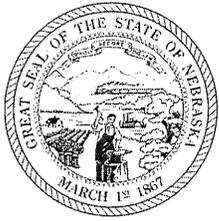
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# STATE OF NEBRASKA



Dave Heineman  
Governor

MILITARY DEPARTMENT  
Timothy J. Kadavy  
Director  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

archaeological sites and will not make that information available to the public during the NEPA or Section 106 consultation process.

We look forward to and welcome your participation in this study. If possible, please respond on or before **January 16, 2009** to enable us to complete this phase of the project within the scheduled timeframe. Please direct any issues, questions, or concerns to Mr. Dustin Huenink, the Native American Liaison for the NEARNG, at 402-309-7469 or at:

CFMO Environmental  
ATTN: Mr. Dustin Huenink  
1300 Military Rd.  
Lincoln, NE 68508

Thank you for taking the time to review this letter. The NEARNG looks forward to working with you on this and future projects.

Sincerely,

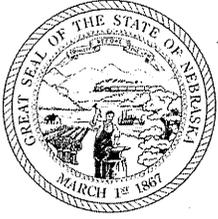
A handwritten signature in black ink, appearing to read "Larry Vrtiska".

LARRY A. VRTISKA  
CIV, NEARNG  
Environmental Program Manager

#### ATTACHMENTS:

- 1 – Columbus, Nebraska Location Map
- 2 – Aerial Photograph of the Proposed Site

# STATE OF NEBRASKA



Dave Heineman  
Governor

MILITARY DEPARTMENT  
Timothy J. Kadavy  
Director  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

December 17, 2008

Robert Harms  
U.S. Fish and Wildlife Service  
203 W. 2<sup>nd</sup> St.  
2<sup>nd</sup> Floor  
Grand Island, NE 68801

SUBJECT: Intergovernmental and Interagency Environmental Planning Consultation for Proposed Armed Forces Reserve Center (AFRC) near Columbus, Nebraska

Dear Mr. Anschutz:

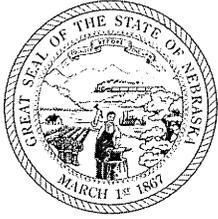
The National Guard Bureau (NGB) and the Nebraska Army National Guard (NEARNG) are preparing environmental documentation for the proposed AFRC near Columbus, Nebraska (**Attachment 1**) as part of the restructuring of military bases recommended by the Defense Base Closure and Realignment Act (BRAC). The Johannes parcel consists of approximately 33 acres of rectangular-shaped land located north of East 23rd Street, approximately 0.25 mile east of the intersection of East 23rd Street and East 14th Avenue, approximately 3.25 miles east of Columbus, Nebraska. The proposed action would consist of construction of an AFRC training facility (46,971 square feet) and would house one NEARNG and 10 United States Army Reserve (USAR) units. Supporting facilities would include military and personally-owned vehicle parking, a 100-square-foot flammable materials facility, a 300-square-foot controlled waste facility, a 2,048-square-foot maintenance training workbay, a 2,700-square-foot heated storage, fencing, sidewalks, outside lighting, access roads, facility sign, and a flagpole. Additionally, the AFRC would provide administrative, educational, assembly, kitchen, library, learning center, vault, weapons simulator, and physical fitness areas. Anti-terrorism/Force Protection (ATFP) safety and security regulations would be incorporated into the facility designs. **Attachment 2** shows the aerial photo of the proposed Columbus AFRC site layout.

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

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

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

# STATE OF NEBRASKA



Dave Heineman  
Governor

MILITARY DEPARTMENT  
Timothy J. Kadavy  
Director  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

- Parks, nature preserves, conservation areas, designated wild or scenic rivers, migratory bird habitats, or special wildlife issues;
- Natural resources issues;
- Soils and geological data, including lists of hydric soils;
- Prime and unique farmland (National Resources Conservation Services [NRCS] only); and
- Additional environmental, cultural, land use or socioeconomic information or concerns your agency may have with regard to the project area.

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

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CFMO Environmental  
ATTN: Mr. Dustin Huenink  
1300 Military Rd.  
Lincoln, NE 68508

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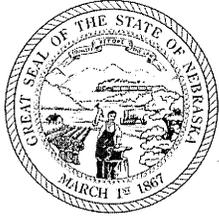
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LARRY A. VRTISKA  
CIV, NEARNG  
Environmental Program Manager

## ATTACHMENTS:

- 1 – Columbus, Nebraska Location Map
- 2 – Location of Proposed Site

# STATE OF NEBRASKA



Dave Heineman  
Governor

MILITARY DEPARTMENT  
Timothy J. Kadavy  
Director  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

December 17, 2008

NE Game and Parks Commission  
2200 N. 33<sup>rd</sup> St.  
Lincoln, NE 68503

SUBJECT: Intergovernmental and Interagency Environmental Planning Consultation for Proposed Armed Forces Reserve Center (AFRC) near Columbus, Nebraska

To Whom It May Concern:

The National Guard Bureau (NGB) and the Nebraska Army National Guard (NEARNG) are preparing environmental documentation for the proposed AFRC near Columbus, Nebraska (**Attachment 1**) as part of the restructuring of military bases recommended by the Defense Base Closure and Realignment Act (BRAC). The Johannes parcel consists of approximately 33 acres of rectangular-shaped land located north of East 23rd Street, approximately 0.25 mile east of the intersection of East 23rd Street and East 14th Avenue, approximately 3.25 miles east of Columbus, Nebraska. The proposed action would consist of construction of an AFRC training facility (46,971 square feet) and would house one NEARNG and 10 United States Army Reserve (USAR) units. Supporting facilities would include military and personally-owned vehicle parking, a 100-square-foot flammable materials facility, a 300-square-foot controlled waste facility, a 2,048-square-foot maintenance training workbay, a 2,700-square-foot heated storage, fencing, sidewalks, outside lighting, access roads, facility sign, and a flagpole. Additionally, the AFRC would provide administrative, educational, assembly, kitchen, library, learning center, vault, weapons simulator, and physical fitness areas. Anti-terrorism/Force Protection (ATFP) safety and security regulations would be incorporated into the facility designs. **Attachment 2** shows the aerial photo of the proposed Columbus AFRC site layout.

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- Parks, nature preserves, conservation areas, designated wild or scenic rivers, migratory bird habitats, or special wildlife issues;

# STATE OF NEBRASKA



Dave Heineman  
Governor

MILITARY DEPARTMENT  
Timothy J. Kadavy  
Director  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

- Natural resources issues;
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1300 Military Rd.  
Lincoln, NE 68508

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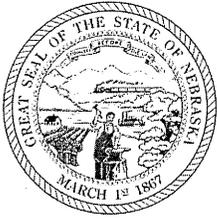
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LARRY A. VRTISKA  
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Environmental Program Manager

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- 2 – Location of Proposed Site

# STATE OF NEBRASKA



Dave Heineman  
Governor

MILITARY DEPARTMENT  
Timothy J. Kadavy  
Director  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

17 December 2008

Director NDEQ  
Post Office Box 98922  
Lincoln, NE 68509

SUBJECT: Intergovernmental and Interagency Environmental Planning Consultation for Proposed Armed Forces Reserve Center (AFRC) near Columbus, Nebraska

To Whom It May Concern:

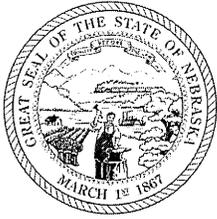
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- Natural resources issues;
- Soils and geological data, including lists of hydric soils;
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CFMO Environmental  
ATTN: Mr. Dustin Huenink  
1300 Military Rd.  
Lincoln, NE 68508

If you have any questions or concerns with regard to this request, please direct them to Dustin Huenink at (402) 309-7469. Thank you for taking the time to review this letter. The NEARNG looks forward to working with you on this and future projects.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry Vrtiska".

LARRY A. VRTISKA  
CIV, NEARNG  
Environmental Program Manager

## ATTACHMENTS:

- 1 – Columbus, Nebraska Location Map
- 2 – Location of Proposed Site



December 30, 2008

Larry Vrtiska  
CIV, NEARNG

Cynthia Bell  
AGEISS Inc.

I have reviewed the information regarding the Armed Forces Reserve Center; Platte County, Nebraska Project for which you requested review of impacts to prime and important farmlands as per the Farmland Protection Policy Act (FPPA). This review only covers FPPA concerns and does not include any other environmental concerns such as wetlands or endangered species. For general conservation concerns or questions relating to wetlands under the jurisdiction of the Food Security Act, contact your county Natural Resources Conservation Service office.

I concur with your action on this project, and have attached the completed AD-1006 form for your files. No further action is needed for this project.

**Steve Scheinost**  
**Asst. State Soil Scientist**  
**USDA-NRCS**  
**Fed. Bldg. Rm. 152**  
**100 Centennial Mall North**  
**Lincoln, NE. 68508-3866**  
**402.437.4117**



# FARMLAND CONVERSION IMPACT RATING

<b>PART I</b> (To be completed by Federal Agency)	Date Of Land Evaluation Request 12/12/08
Name Of Project Armed Forces Reserve Center	Federal Agency Involved U.S. Army Corps of Engineers
Proposed Land Use Armed Forces training facility	County And State Platte County, Nebraska

<b>PART II</b> (To be completed by NRCS)		Date Request Received By NRCS 12/23/08	
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply -- do not complete additional parts of this form).		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Major Crop(s) Corn		Acres Irrigated 178,523	Average Farm Size 435
Farmable Land In Govt. Jurisdiction Acres: -- %		Amount Of Farmland As Defined in FPPA Acres: 223,840 % 51	
Name Of Land Evaluation System Used SRPG (Soil Rating for Plant Growth)		Name Of Local Site Assessment System --	
		Date Land Evaluation Returned By NRCS 12/30/08	

<b>PART III</b> (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	33.0				
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site	33.0	0.0	0.0	0.0	0.0

<b>PART IV</b> (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland	15.0				
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value					

<b>PART V</b> (To be completed by NRCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)	69	0	0	0
--	----	---	---	---

<b>PART VI</b> (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points				
1. Area In Nonurban Use	15	5			
2. Perimeter In Nonurban Use	10	8			
3. Percent Of Site Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	0			
5. Distance From Urban Builtup Area	15	0			
6. Distance To Urban Support Services	15	0			
7. Size Of Present Farm Unit Compared To Average	10	0			
8. Creation Of Nonfarmable Farmland	10	10			
9. Availability Of Farm Support Services	5	5			
10. On-Farm Investments	20	0			
11. Effects Of Conversion On Farm Support Services	10	0			
12. Compatibility With Existing Agricultural Use	10	0			
<b>TOTAL SITE ASSESSMENT POINTS</b>	<b>160</b>	<b>48</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>PART VII</b> (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	69	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)	160	48	0	0	0
<b>TOTAL POINTS (Total of above 2 lines)</b>	<b>260</b>	<b>117</b>	<b>0</b>	<b>0</b>	<b>0</b>

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
----------------	-------------------	--

Reason For Selection:



NEBRASKA STATE HISTORICAL SOCIETY

1500 R STREET, P.O. BOX 82554, LINCOLN, NE 68501-2554  
(402) 471-3270 Fax: (402) 471-3100 1-800-833-6747 www.nebraskahistory.org

Michael J. Smith, Director/CEO

2 January 2009

LARRY A. VRTISKA  
CFMO ENVIRONMENTAL  
1300 MILITARY RD.  
LINCOLN, NE 68508

Re: Reserve Center  
Columbus, NE  
Platte Co.  
H.P. #0812-065-01

Reserve Center  
McCook, NE  
Red Willow Co.  
H.P. #0812-064-01

Dear Mr. Vrtiska:

A review of our files indicates that the referenced project does not contain recorded historic resources. It is our opinion that no survey for unrecorded cultural resources will be required. Your undertaking, in our opinion, will have no effect for archaeological, architectural, or historic properties. This review does not constitute the opinions of any Tribes that may have an interest in Traditional Cultural Properties potentially affected by this project.

There is, however, always the possibility that previously unsuspected archaeological remains may be uncovered during the process of project construction. We therefore request that this office be notified immediately under such circumstances so that an evaluation of the remains may be made, along with recommendations for future action.

Sincerely,

Terry Steinacher  
H.P. Archaeologist

Concurrence:

L. Robert Puschendorf  
Deputy NeSHPO

-----Original Message-----

From: Robert\_Harms@fws.gov [mailto:Robert\_Harms@fws.gov]

Sent: Tuesday, March 10, 2009 8:04 AM

To: Wendy Arjo

Cc: 'C. Lee Major'; 'Cyndi Bell'; melissar@ageiss.com

Subject: Re: Biological consultation for McCook and Columbus EAs

Wendy:

We have completed our review of the information provided in your E-mail and concur that the proposed projects in Columbus and McCook will not have any adverse affects on federally listed threatened or endangered species or result in the destruction or adverse modification to federally designated critical habitat.

Please call or E-mail me if you have any questions.

Bob

Robert R. Harms  
Fish and Wildlife Biologist  
U.S. Fish and Wildlife Service  
203 West Second Street  
Grand Island, Nebraska 68801  
Phone: 308-382-6468, Extension 17  
Fax: 308-384-8835  
[robert\\_harms@fws.gov](mailto:robert_harms@fws.gov)



## Nebraska Game and Parks Commission

2200 N. 33rd St. / P.O. Box 30370 / Lincoln, NE 68503-0370

Phone: 402-471-0641 / Fax: 402-471-5528 / [www.OutdoorNebraska.org](http://www.OutdoorNebraska.org)

January 16, 2009

Dustin Huenink  
CFMO Environmental  
1300 Military Road  
Lincoln, NE 68508

**RE: Proposed Armed Forces Reserve Center (AFRC) near Columbus, Platte County**

Dear Mr. Huenink:

Nebraska Game and Parks Commission (NGPC) staff members have reviewed the information for the proposal identified above. The project would involve construction, on a 33 acre parcel, of an AFRC facility that would house one NEARNG and 10 United States Army Reserve units.

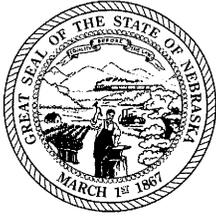
Based on our review, the project as described is not likely to have an adverse affect on resources within our agency's areas of concern, including state-listed threatened and endangered species, other fish and wildlife resources, streams and wetlands, or NGPC properties.

Thank you for the opportunity to review this proposal. If you have any questions regarding these comments, or require additional information, please contact me at (402) 471-5423.

Sincerely,

Carey Grell  
Environmental Analyst  
Realty and Environmental Services Division

# STATE OF NEBRASKA



Dave Heineman  
Governor

**MILITARY DEPARTMENT**  
Timothy J. Kadavy  
Director  
1300 Military Road  
Lincoln, Nebraska 68508-1090  
Phone: (402) 309-7210

NEARNG-CFMO-ENV

12 March 2009

## MEMORANDUM FOR RECORD

SUBJECT: Tribal consultation on NEARNG Columbus and McCook BRAC EA's

The Nebraska Army National Guard Environmental office is currently participating the National Environmental Policy Act process with the proposed construction of two Armed Forces Readiness Centers in McCook and Columbus Nebraska. These Armed Forces Readiness Centers were directed under the federal DoD BRAC guidance. The Omaha Nation and Pawnee Nation were the two tribes contacted based on these federally recognized Native American Tribes having judicially recognized lands in these two counties. Tribal consultation was initiated by mail on 17 December 2008. As of 12 March 2009, NEARNG has received no correspondence from these two tribes.

The POC for this issue is the undersigned at 402-309-7457.

A handwritten signature in black ink, appearing to read "Larry Vrtiska".

Larry Vrtiska  
NEARNG  
Natural Resource Manager

Copy:

Ageiss Inc.

---

*Environmental Assessment for Construction of an  
Armed Forces Reserve Center and  
Implementation of BRAC 05 Recommendations at  
Columbus, Nebraska*

---

*APPENDIX B*

---

**ENVIRONMENTAL SITE ASSESSMENT**

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## **APPENDIX B. ENVIRONMENTAL SITE ASSESSMENT**

This appendix provides the text portion of the Phase I Environmental Site Assessment for the Johannes Parcel.

**PHASE I  
ENVIRONMENTAL SITE ASSESSMENT**

**COLUMBUS AFRC  
33 ACRES IN THE NE  $\frac{1}{4}$  OF SW  $\frac{1}{4}$  SECTION 15,  
TOWNSHIP 17N, RANGE 15E**

---

**COLUMBUS, NE**

**PREPARED FOR:**

**NEARNG  
USAR**

**MARCH 2008**

**OLSSON PROJECT No. 008-0294**

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## 1.0 EXECUTIVE SUMMARY

This section summarizes the findings of the Phase I Environmental Site Assessment (ESA) conducted for the property in the NE ¼ of the SW ¼ of Section 15, Township 17 North, Range 15 East, approximately one mile east of Columbus, Nebraska.

The Phase I ESA performed for this assessment property has revealed the following:

- The assessment property is currently and has historically been used for agricultural purposes.
- The surrounding land use is agricultural and residential.
- No *recognized environmental conditions* occur on or within the assessment property.

This report should be read in its entirety.

## 2.0 INTRODUCTION

This report was completed on March 17, 2008 and describes the Phase I Environmental Site Assessment (ESA) performed by Olsson Associates (OLSSON) for approximately 33 acre parcel located in the NE ¼ of the SW ¼ of Section 15, Township 17 N, Range 15 East, near Columbus, Nebraska (hereinafter referred to as "assessment property") (see Appendix A). OLSSON has been contracted to perform this work by the Nebraska Army National Guard (NEARNG).

### 2.1 Purpose

This ESA has been performed in accordance with American Society of Testing Materials (ASTM) Practice E 1527-05 (ASTM, 2005). The purpose of this ESA is intended to:

- 1) Satisfy one of the requirements to qualify for the *innocent landowner, contiguous property owner, or bona fide prospective purchaser* limitations on CERCLA liability: that is, the practice that constitutes "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in 42 U.S.C. § 9601(35)(B).
- 2) Identify *recognized environmental conditions* (REC) and *historical recognized environmental conditions* (HREC) in connection with the assessment property.

The term REC refers to the presence or likely presence of any hazardous substances or petroleum products on the property under conditions indicating an existing release, a past release or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum substances, even under conditions in compliance with regulatory laws.

The term HREC is a condition which in the past would have been considered an REC, but may no longer be considered a REC. One example of a HREC would be a release site that has been remediated to acceptable limits of the responsible regulatory agency.

RECs and HRECs are not intended to include *de minimis* conditions that generally do not present a material risk of harm to the public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies (ASTM, 2005).

## 2.2 Detailed Scope-of-Services

The scope-of-services for this ESA include the following four major components to identify *RECs and HRECs* in connection with the assessment property, to the extent feasible pursuant to ASTM Practice E 1527-05.

### 2.2.1 Records Review

Review of physical setting sources;  
Review of federal and state environmental records;  
Review of historical information.

### 2.2.2 Site Reconnaissance

Conduct a walk-through of the assessment property;  
Document site setting, land use of assessment property and adjoining properties;  
Documented site reconnaissance with photographs.

### 2.2.3 Interviews

Interview current landowner, occupant, and others as applicable;  
Interview local government officials.

### 2.2.4 Report-of-Findings

The findings of the records review, site reconnaissance, and interviews are documented herein (this report).

Additional services beyond the scope of ASTM 1527-05 include a review of environmental liens as requested by the client in addition to a preliminary evaluation of the presence of asbestos containing materials, radon, polychlorinated biphenyls (PCBs), lead-based paint, lead in drinking water, wetlands, known occurrences of un-exploded ordinance (UXO), use of pesticides, environmental impact studies, and requirements of the National Environmental Policy Act (NEPA).

## 2.3 Significant Assumptions

OLSSON's conclusions regarding the assessment property are based on observations of existing site conditions conducted on March 4, 2008, regulatory search, our interpretation of site history, and site usage information. Site history and usage information is obtained primarily from the current landowner, previous landowner(s), and occupants through verbal and/or written communication. Our interpretation assumes that landowners are providing truthful and accurate information to OLSSON.

## 2.4 Limitations and Exceptions

Conclusions regarding the condition of the site do not represent that all areas within the site and within or beneath structures are of the same quality as may be inferred from observable site conditions and readily-available site history. The provided information is prepared to be responsive to the requirements of CERCLA (42 U.S.C. § 9601, et. seq.). No other warranty, expressed or implied, is given. If additional information becomes available concerning this site, it should be provided to OLSSON so that our conclusions and recommendations may be reviewed and modified as necessary.

The results of this study must be further qualified by the fact that no soil and groundwater sampling has been conducted by OLSSON. An evaluation of business environmental risk associated with a parcel of commercial real estate would require investigation beyond that identified in the scope of work.

## 2.5 Special Terms and Conditions

Per ASTM 1527-05 the contents of this report are valid provided the records review, site reconnaissance, and declaration of the environmental professional are performed within 180 days of the date of purchase or the date of intended transaction.

## 2.6 User Reliance

This report-of-findings has been prepared for and may be relied upon by NEARNG and United States Army Reserves (USAR). The contents of this report may be conveyed to an affiliate, related entity, subsidiary, lender, title insurer, regulatory/city agency or current property owner(s) and their agents, but further dissemination requires prior written approval of OLSSON.

## 3.0 SITE DESCRIPTION

### 3.1 Location and Legal Description

The assessment property consists of approximately 33 acres of farm ground located east of the City of Columbus, Nebraska. The legal description of the assessment property is:

*The North 1,056' of the Northeast Quarter of the Southwest Quarter (NW ¼ SW ¼) of Section Fifteen (15), Township Seventeen (17) North, Range One (1) East of the 6<sup>th</sup> P.M., Platte County, Nebraska.*

### 3.2 Site and Vicinity General Characteristics

The topographic map (Appendix A) indicates that the assessment and surrounding property are relatively flat with a generally slope to the southeast. The elevation of the property is approximately 1,430 feet above mean sea level (MSL). The Loup River Canal, which trends from northwest to southeast, is located approximately 500 feet northeast of the assessment property. The assessment property is located within the 100 year floodplain of the Platte River which is approximately three miles south of the assessment property. Based upon topography, the assumed ground water flow direction in the vicinity of the assessment property would be southeast. Without having specific information such as on-site ground water measurements the depth to ground water and the flow direction cannot be directly determined.

### 3.3 Current Use of the Assessment Property

The assessment property is currently in agricultural use as an alfalfa field.

### 3.4 Description of Improvements on the Assessment Property

There are no structures or other improvements on the assessment property.

### 3.5 Current Uses of the Adjoining Properties

Property uses adjacent to the assessment property include:

North: agricultural and residential

East: agricultural

South: agricultural, followed by Highway 30 and industrial area south of Highway 30

West: agricultural

## 4.0 USER PROVIDED INFORMATION

Mr. Clayton Stryker, NEARNG CFMO Master Planner, completed a user questionnaire for the assessment property. The completed questionnaire is provided in Appendix B. The responses to the questionnaire are summarized in the following sections.

#### **4.1 Title Records, Environmental Liens, and Activity and Use Limitations**

Mr. Stryker indicated that he was not aware of any environmental cleanup liens or activity and use limitations for the assessment property. As part of the scope of work for this assessment, the user requested OLSSON to perform a title search for environmental liens and activity and use limitations. The results of the search are described in Section 5.2.

#### **4.2 Specialized Knowledge**

Mr. Stryker, to the best of his knowledge, does not have any specialized knowledge or experience of the property that is material to determining *recognized environmental conditions* in connection with the assessment property.

#### **4.3 Valuation Reduction for Environmental Issues**

According to Mr. Stryker, the assessment property sale price is fair market value for the condition of the property.

#### **4.4 Commonly Known or Reasonably Ascertainable Information**

Mr. Stryker indicated that the past use of the property was agricultural. He did not have any knowledge of specific chemicals, releases, or environmental cleanups that occurred at the assessment property.

#### **4.5 Owner, Property Manager, and Occupant Information**

Mr. Dustin Huenink, NEARNG CFMO Environmental Analyst, provided OLSSON with current owner information. The current owner then identified the current property manager. Information provided by the property owner and property manager is discussed in Section 7.0.

#### **4.6 Reason for Performing the Phase I**

Mr. Stryker indicated that the Phase I ESA is being performed as a requirement of Base Realignment and Closure (BRAC) law.

### **5.0 RECORDS REVIEW**

OLSSON and Environmental Data Resources, Inc. (EDR®) conducted a review of available environmental records as part of this ESA.

For each of the databases and sites listed below, their relevance to the assessment property is limited to their ability to have caused or cause in the future contamination of the soil or ground water beneath the assessment property. Spills that are soluble in the ground water typically move with the flow of the ground water. As a result, for most releases or possible releases, sites that could affect the assessment property are those in which the spill (actual or possible) occurred on either the assessment property or "upgradient" of the assessment property.

As used in this report "upgradient" refers only to the direction from which ground water generally moves to cross beneath the assessment property. Upgradient to the assessment property is believed to be northwest. This means that actual or potential releases occurring northwest of the assessment property have the potential to affect the assessment property.

### 5.1 Standard Environmental Record Sources

EDR<sup>®</sup> completed a search of ASTM required environmental records covering the ASTM minimum search distances around the assessment property. Table 5.1-1 is a brief description of sites found within the specific search radii. The following subsections discuss identified sites and the complete EDR<sup>®</sup> report is included in Appendix C.

**Table 5.1-1: Environmental Records Review Data**

Database Record	Minimum Search Distance (Miles)	Total Sites Found
NPL	1	0
Delisted NPL	½	0
CERCLIS	½	1
CERCLIS NFRAP	½	0
RCRA CORRACTS	1	0
RCRA TSD	½	0
RCRA Large Quantity Generator	Assessment Property/Adjoining Property	0
RCRA Small Quantity Generator	Assessment Property/Adjoining Property	0
Federal Institutional Controls	Assessment Property	0
Federal Engineering Controls	Assessment Property	0
ERNS	Assessment Property	0
State/Tribal NPL**	1	NR
State/Tribal CERCLIS**	½	NR
State/Tribal Hazardous Waste	½	N/A
State/Tribal Licensed Landfill List	½	0
LUST	½	3
LAST	½	2
USTs	Assessment Property/Adjoining Property	0
State/Tribal Institutional Controls	Assessment Property	0
State/Tribal Engineering Controls	Assessment Property	0
State/Tribal Voluntary Cleanup Sites	½	0
State/Tribal Brownfield Sites	½	0

\*\* = This state does not maintain the database

NR = Not Reported

N/A = This State Does Not Maintain a SWHS list. See the Federal CERCLIS List.

#### 5.1.1 CERLIS and NPL

Comprehensive Environmental Response, Compensation and Liability Index System (CERCLIS) is a compilation of sites in which the EPA investigated or is currently investigating for a release or threatened release of hazardous substances pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980. The National Priorities List (NPL) documents sites that have been identified for priority remedial actions under the Superfund Program.

This search reveals one CERCLA facility within a one-mile radius of the assessment property, the EGS Electric Group Site located approximately 0.4 miles southeast of the assessment property. This site has a No Further Remedial Action Plan (NFRAP) status and is downgradient of the assessment property, thus it is not considered a REC in association with the assessment property.

### 5.1.2 Leaking Underground Storage Tanks (LUST's)

This search identifies three LUST sites within 0.5 miles of the assessment property; refer to pages 6, 8, and 9, EDR Report, Appendix C. Table 5.1-2 summarizes the LUST facilities.

**Table 5.1-2: LUST Facility Information**

Site Name	Address	Distance/Direction	Investigation Status
OL Scheer Hardware	1608 23 <sup>rd</sup> Street	0.367 mi SSW (cross gradient)	No Further Action
Sperry New Holland	2500 E 23 <sup>rd</sup> St	0.409 mi SE (downgradient)	No Further Action
Citizens Bank And	2210 East 14 <sup>th</sup> Ave	0.430 mi SW (cross gradient)	No Further Action

None of the found LUST facilities are considered RECs in regards to the assessment property because: 1) the no further action status and 2) they are all either cross or down gradient of the assessment property, none upgradient.

### 5.1.3 LAST/Spills

This search identified two sites in the spills database associated with leaking above-ground storage tanks (LAST). Table 5.1-3 summarizes the LAST/Spill facilities.

**Table 5.1-3: LAST/Spill Facility Information**

Site Name	Address	Distance/Direction	Investigation Status
Appleton Electric/Emerson General	2500 E 23 <sup>rd</sup>	0.409 mi SE (downgradient)	1 – Unknown 2 – No Further Action
Appleton Electric	2500 E 23 <sup>rd</sup> St	0.409 mi SE (downgradient)	3 – No Further Action

None of the found LAST/Spill listings are considered RECs in regards to the assessment property because: 1) the no further action status and 2) they are all either cross or down gradient of the assessment property, none upgradient.

### 5.1.4 Unmapped Sites

The EDR<sup>®</sup> report lists sites that appear on the databases searched but could not be mapped due to poor or inadequate address information. One unmapped site appears to be in the vicinity of the assessment property. This site is identified as Columbus – Industrial Park, listed at E Highway 30. It is unknown the exact location of the site, but based on address information and location of industrial areas, it would seem to be somewhere east of Columbus on the south side of Highway 30, which would be either hydrogeologically down gradient or cross gradient of the assessment property. The site is listed in the CERCLA-NFRAP database. Base on the location and status information, this site is not considered a REC in association with the assessment property.

## 5.2 Additional Environmental Record Sources

At the request of the User, OLSSON performed a preliminary review of items beyond the scope of ASTM 1527-05. These items are discussed in the following subsections and those in Section 5.3.

Based upon historical and current assessment property use, there were no structures or other improvements. Therefore, the following areas of concern are not applicable: asbestos

containing materials, lead-based paint, industrial hygiene, health and safety, and indoor air quality. Historical land use also would indicate that UXO would not be of concern at the assessment property. Use of pesticides and PCBs are discussed in Section 7.2.

### **5.2.1 Environmental Lien Search**

OLSSON reviewed title records provided by the City of Columbus for environmental liens (see Appendix D). There were no records of environmental liens or activity and use limitations listed in the title documents.

### **5.2.3 Lead in Drinking Water**

Potable water will likely be supplied to the site by the City of Columbus. Columbus' Annual Drinking Water Quality Report for 2006 was reviewed and indicated that the Columbus municipal water supply had no recorded incidents of lead above the regulatory limit in the drinking water in the period of January 1 to December 31, 2006.

### **5.2.4 Radon**

The EDR<sup>®</sup> Report (see Page A-45, Appendix C) indicates that Platte County lies within Zone 1, which corresponds to a high-risk area for radon gas. Zone 1 counties have a predicted average indoor radon screening level greater than 4 pCi/L (pico curies per liter). For structures of the type to be constructed by NEARNG, Nebraska Human Health and Services (NHHS) recommends that a non-permeable barrier coupled with vent pipes to allow air exchange with the atmosphere be installed below the base of the floor and the ground surface. The NHHS also indicated that the heating, ventilation and cooling system could be designed to provide adequate air exchange to mitigate radon gas accumulation.

### **5.2.5 Registered Wells**

Olsson reviewed the list of registered wells provided with the EDR Report (see Page A-6, Appendix C). There were no registered wells identified on the assessment property. Wells identified in close proximity to the assessment property were domestic, livestock, irrigation, and USGS wells. None of the wells in close proximity to the assessment property were monitoring wells which could potentially indicate an area of known or suspected contamination.

## **5.3 Requirements of NEPA**

Olsson and EDR<sup>®</sup> conducted a NEPA check which involves a preliminary review of requirements of NEPA. The complete report is included in Appendix E and the findings are discussed below.

### **5.3.1 Wetlands**

No wetlands or waters were noted on the assessment property according to the National Wetlands Inventory (NWI) map (refer to the EDR<sup>®</sup> NEPA Report, page 10, Appendix E).

### **5.3.2 Cultural, Archeological and Historic Resources**

The National Register of Historic Places was reviewed by EDR<sup>®</sup> for sites within a one-mile radius of the assessment property. No sites were noted within this search radius (refer to the EDR<sup>®</sup> NEPA Check Report, page 2, Appendix E).

### **5.3.3 Ecological Resources**

Databases maintained by the Bureau of Land Management, National Park Service and Forest Service, and Fish and Wildlife Service were reviewed by EDR<sup>®</sup>. No officially designated wilderness areas, wildlife preserves, sanctuaries, refuges, or wild and scenic rivers occur within

a one-mile radius of the assessment property (refer to the EDR® NEPA Report, page 2, Appendix E).

#### 5.3.4 Endangered Species and Wildlife Sanctuaries

Federal lands databases maintained by the Bureau of Land Management, National Park Service and Forest Service, and Fish and Wildlife Service were reviewed by EDR®. Based on the review, one species, the Bald Eagle, Interior Least Tern, and the Piping Plover are endangered species listed for Platte County (refer to the EDR® NEPA Report, page 4, Appendix E).

#### 5.3.5 Flood Plain

The assessment property is not located in the 100-year flood plain, but is located in the 500-year flood plain (see EDR® NEPA Report, page 8, Appendix E).

#### 5.3.6 FCC & FAA Sites

There are no FCC or FAA sites on the assessment property, but there are two sites approximately 0.75 miles southwest of the assessment property (see EDR® NEPA Report, page 8, Appendix E).

### 5.4 Historical Use Information on Assessment and Adjacent Property

OLSSON conducted interviews and reviewed information sources to determine historical use of the assessment property and adjacent properties. Information sources include aerial photographs, Sanborn maps, historical topographic maps, and Interviews (see Appendix F).

No Sanborn Maps depicting the assessment property were available. Historical Aerial Photographs depicting the assessment and surrounding property in 2007, 2003, 1999, 1993, 1957, and 1938 were reviewed. Topographic maps from 1958 and 1976 were also reviewed.

The historical information is summarized in Tables 5.3-1, 5.3-2, and the discussion below.

**Table 5.4-1: Historical Use of the Assessment Property**

Year	Property Use	Reference
1938 to Present	Agricultural	Interview, Aerials, Topographic map

**Table 5.4-2: Historical Use of the Adjacent Property**

Year	Property Use	Reference
1938 to 1976	Agricultural	Interview, Aerials, Topographic map
1976 to 1993	Remains primarily agricultural, with housing development now northwest of the assessment property	Aerials, Topographic map
1993 to Present	As in 1993, with additional residential development west of the assessment property.	Aerials, Topographic map

The assessment property and adjacent property was historically and is currently primarily used for agricultural purposes. Residential developments in the vicinity begin to occur in 1976, with additional development shown in the 1993 and 1999 aerial photographs. The historical information reviewed does not suggest any RECs in association with the assessment property.

## 6.0 SITE RECONNAISSANCE

OLSSON conducted a walk-through of the assessment property on March 4, 2008. This section provides a summary of the observations noted during the walk-through. Mr. Joseph Mangiamelli, City Administrator for the City of Columbus, met OLSSON at the site. Photographs (PH) were taken during the walk-through and are presented in Appendix G.

### 6.1 Methodology and Limiting Conditions

During the walk-through, the assessment property and adjoining properties were visually surveyed by driving and walking the assessment property grounds and searching for RECs.

### 6.2 Observations

Table 6.2-1 below summarizes observations at the assessment property which could potentially indicate the likelihood of a REC. The significance of these observations is discussed in the table below.

**Table 6.2-1: Summary of Observations**

On-site	Adjacent	Observed Conditions
No	No	Hazardous Substances in Connection with the Property Use
No	No	Petroleum Products in Connection with Property Use
No	No	AST's and/or UST's
No	No	Strong, Pungent, or Noxious Odors
No	No	Storage Drums
No	No	Hazardous Substance Containers
No	No	Petroleum Product Substance Containers
No	No	Unidentified Substance Containers
No	No	Electrical and/or Mechanical Equipment Potentially Containing PCB's
NA	NA	Interior Heating/Cooling
NA	NA	Interior Stains and/or Corrosion
NA	NA	Interior Drains and/or Sumps
No	No	Pits, Ponds, or Lagoons
No	No	Stained Soil or Pavement
No	No	Stressed vegetation
No	No	Solid Waste
No	No	Wells
No	No	Other

NA = Not Applicable

No items of concern or RECs were noted during the site reconnaissance.

## 7.0 INTERVIEWS

Interviews were conducted and/or written questionnaires were sent to the following persons associated with the assessment property:

- Mr. Clayton Stryker, user of the Phase I ESA (see Section 4.0)
- Mr. Joseph Mangiamelli, City of Columbus (current property owner)
- Mr. Galyn Johannes, current and historical farmer-tenant
- City of Columbus Fire Department

The owner and occupant questionnaires are included in Appendix H.

### 7.1 Interview with Owner

OLSSON sent an environmental questionnaire to the current owner of the property to assist in completion of this report (see Appendix H). The questionnaire has questions regarding environmental issues such as underground storage tanks, environmental liens, hazardous material storage and disposal. No responses to the questionnaire pointed to environmental concerns.

## **7.2 Interview with Occupant**

Mr. Galyn Johannes was interviewed via phone conversation with OLSSON on March 5, 2008 and a follow up conversation on March 6, 2008. Mr. Johannes indicated that the assessment property has been a part of his family farm for many years and that he has farmed it since approximately 1960. He indicated that there were no industrial uses, storage tanks, hazardous materials, or other environmental concerns associated with the assessment property. Mr. Johannes responded that there are no transformers, capacitors, or any hydraulic equipment for which there are records indicating the presence of PCBs.

Mr. Johannes indicated that agricultural herbicides and pesticides were applied at normal or less than normal agronomic rates at the assessment property. He indicated that the he has an application license and that it has been approximately 10 years since application due to recent use as alfalfa. Based on this information, it appears that herbicides and pesticides were applied at rates that would not cause a buildup of harmful concentrations of herbicides and pesticides.

## **7.3 Interviews with Local Government Officials**

The City of Columbus Fire Department was contacted regarding any responses to the assessment property via telephone. Terry with the Fire Department indicated that they have not responded to the area. Additionally, NDEQ is the agency with jurisdiction over environmental matters at the assessment property and their records were searched by the regulatory records review (see Section 5.2).

## **8.0 FINDINGS AND OPINION**

The Phase I ESA performed for this assessment property has revealed the following.

### **8.1 Recognized Environmental Conditions**

This ESA has revealed no RECs in connection with the assessment property. Sites of environmental concern were identified in the regulatory records review. However, these sites are not considered RECs in association with the assessment property. Site specific reasoning is discussed in the text of the report as the sites of concern are identified.

### **8.2 Historical Recognized Environmental Conditions**

This ESA has revealed no HRECs in connection with the assessment property.

### **8.3 De minimis Conditions**

This ESA has revealed no de minimis conditions in connection with the assessment property.

### **8.4 Data Gaps**

This assessment did not have data gaps.

## **9.0 CONCLUSIONS**

OLSSON has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 for the N 1056' of the NE ¼ of the SW ¼ of Section 15, T 17N, R 15E, approximately one mile east of Columbus, Nebraska. Any exceptions to, or deletions from, this practice are described in Section 10.0 of this report.

### 10.0 DEVIATIONS

There were no deviations from the ASTM standard. The report was completed in accordance with ASTM Practice E 1527-05.

### 11.0 ADDITIONAL SERVICES

Additional services requested by the user of this report, in addition to the scope of ASTM Practice E 1527-05, include review of title records for environmental liens and preliminary review of asbestos containing materials, radon, PCBs, lead-based paint, lead in drinking water, wetlands, known occurrences of UXO, use of pesticides, environmental impact studies, and requirements of NEPA (see Sections 5.2 and 5.3).

### 12.0 REFERENCES

ASTM Practice E 1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

EDR NEPA Check, March 5, 2008

EDR Radius Map with GeoCheck, March 5, 2008

EDR Sanborn Map Report, March 5, 2008

Commonwealth Land Title Insurance Company, Commitment for Title Insurance, File No: 080056.

University of Nebraska – Lincoln, Conservation and Survey Division, Historical Aerial Photographs (2003, 1999, 1993, 1957, 1938).

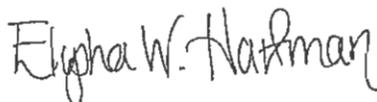
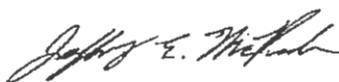
USGS 7.5 Minute Topographic Map, Columbus Quadrangle, 1958, Photorevised 1976.

### 13.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

Questions or requests for further information should be directed to our office.

Prepared by,

Reviewed by,



Jeff McPeak, IE  
Environmental Engineer

Elysha Hartman  
Environmental Scientist

I, Elysha Hartman, declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

### 14.0 QUALIFICATION(S) OF ENVIRONMENTAL PROFESSIONAL(S)

The abovementioned *environmental professionals* meet the requirements of ASTM Practice E 1527-05 and resumes are included in Appendix H.

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*Environmental Assessment for Construction of an  
Armed Forces Reserve Center and  
Implementation of BRAC 05 Recommendations at  
Columbus, Nebraska*

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*APPENDIX C*

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**ECONOMIC IMPACT FORECAST SYSTEM REPORT**

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## APPENDIX C. ECONOMIC IMPACT FORECAST SYSTEM REPORT

This appendix provides the Economic Impact Forecast System Report for the Columbus, Nebraska Proposed Action.

### EIFS REPORT

#### PROJECT NAME

Columbus, Platte County, Nebraska

#### FORECAST INPUT

Change In Local Expenditures	\$9,300,000
Change In Civilian Employment	0
Average Income of Affected Civilian	\$0
Percent Expected to Relocate	0
Change In Military Employment	0
Average Income of Affected Military	\$0
Percent of Military Living On-post	0

#### FORECAST OUTPUT

Employment Multiplier	2.24
Income Multiplier	2.24
Sales Volume - Direct	\$9,300,000
Sales Volume - Indirect	\$11,532,000
Sales Volume - Total	\$20,832,000 1.95%
Income - Direct	\$1,387,792
Income - Indirect	\$1,720,862
Income - Total (place of work)	\$3,108,653 0.43%
Employment - Direct	43
Employment - Indirect	53
Employment - Total	95 0.41%
Local Population	0
Local Off-base Population	0 0.00%

#### RTV SUMMARY

	Sales Volume	Income	Employment	Population
<b>Positive RTV</b>	13.35 %	9.97 %	5.18 %	1.85 %
<b>Negative RTV</b>	-9.37 %	-11.38 %	-5.57 %	-1.2 %