

FINDING OF NO SIGNIFICANT IMPACT:
CONSTRUCTION OF AN EQUIPMENT HOLDING YARD AND IMPROVED FIELD MAINTENANCE AREA
PIÑON CANYON MANEUVER SITE

FORT CARSON, CO

Fort Carson has prepared an Environmental Assessment (EA) that evaluates the potential environmental and socioeconomic impacts of the Army's proposal to construct new facilities and improve existing facilities at the Piñon Canyon Maneuver Site (PCMS) in order to facilitate the secure storage of military vehicles and equipment and to improve working conditions for field maintenance of equipment and vehicles.

Description of the Proposed Action

Fort Carson is proposing to construct new facilities and improve existing facilities at the PCMS in order to facilitate the secure storage of military vehicles and equipment and to improve working conditions for field maintenance of equipment and vehicles. The Proposed Action includes relocating the existing base operations equipment area, construction of a new equipment holding yard, renovation of two existing clamshells, security lights installation, and the necessary infrastructure improvements for the facilities involved, such as electrical connectivity, road improvements, and communication lines.

Construction for the Proposed Action is expected to commence in the Spring of 2013.

Alternatives

The proposed location for construction and renovation is in an already disturbed area (within the existing cantonment area of PCMS) and would minimize environmental effects (e.g., there are no National Register of Historic Places-eligible cultural resources or Native American sacred sites; avoidance of effects to federal-listed species, special interest areas, and wetlands), and would minimize cost (e.g., utilities, infrastructure, construction). Based on these criteria, the Proposed Action was the only site that met the requirements.

There were no other alternative sites that met all the above siting criteria.

No Action Alternative

Under the no action alternative, the Army would not construct an equipment holding yard or improve field maintenance at PCMS.

Environmental Consequences

Implementation of the Proposed Action would allow construction and improve existing facilities at PCMS to provide an area for the parking and secure storage of military equipment and to improve field maintenance accommodations for this equipment at PCMS. Military units that arrive at the site for training would be able to conduct vehicle maintenance and services without exposure to the elements. Security improvements

and additional safety precautionary measures would reduce the risk associated with moving vehicles and personnel during periods of darkness.

Findings indicate that implementation of the Proposed Action would result in either no significant adverse environmental consequences or temporary and relatively minor negative effects on those environmental areas identified. The affected environment would not be significantly or adversely effected by proceeding with the Proposed Action. No significant cumulative effects would be expected.

Conclusion

The attached EA was prepared pursuant to 32 Code of Federal Regulations (CFR) 651 and U.S. Council on Environmental Quality (CEQ) regulations (Title 40, U.S. Code, Parts 1500-1508) for implementing the procedural requirements of the National Environmental Policy Act (NEPA). The finding of this EA is that neither the Proposed Action nor the Alternatives, with minor mitigation, would have any significant impact on the human or natural environment. Therefore, based on review of the EA, I conclude that neither the Proposed Action nor the Alternatives is a major federal action that would significantly affect the quality of the environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969, as amended. Accordingly, no Environmental Impact Statement (EIS) is required. With this finding, I approve selection of the proposed action.

Roderick Chisholm Date: 30 OCT 13
DAVID L. GROSSO
COL, SF
Garrison Commander
Fort Carson, Colorado



ENVIRONMENTAL ASSESSMENT
Construction of an Equipment Holding Yard and Improved Field
Maintenance Area
Piñon Canyon Maneuver Site
Fort Carson, Colorado



February 2013

**Environmental Assessment
For the
Construction of an Equipment Holding Yard and Improved Field Maintenance at
Piñon Canyon Maneuver Site, Colorado**

**Fort Carson, CO
August 2013**

Prepared By:

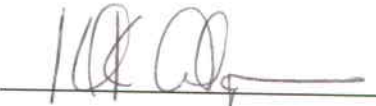
Deb Benford
Directorate of Public Works, Environmental Division
1626 Evans Street, Bldg 1219
Fort Carson, Colorado 80913-4362

Reviewed By:

William Hennessy
Staff Judge Advocate, Fort Carson

Submitted By:

Hal Alguire
Director
Public Works
Fort Carson, Colorado

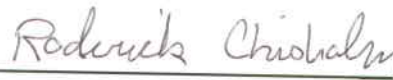


30 Oct 2013

Date

Approved By:

 DAVID L. GROSSO
COL, SF
Garrison Commander
Fort Carson, Colorado



30 Oct 13

Date

Contents

1.0 PURPOSE, NEED, AND SCOPE	1
1.1 Introduction.....	1
1.2 Purpose and Need for Proposed Action	1
1.3 Scope of Analysis	2
1.4 Preliminary Considerations	2
1.5 Decisions to Be Made	3
1.6 Agency and Public Participation	3
1.7 Legal Framework.....	3
2.0 DESCRIPTION OF PROPOSED ACTION	4
2.1 Construction of Equipment Holding Yard and Improvements to Maintenance Facilities at PCMS	4
2.1.1 Relocate Base Operations Equipment Area:	4
2.1.2 Equipment Holding Yard Construction:.....	5
3.0 ALTERNATIVES CONSIDERED	7
3.1 No Action Alternative	7
3.2 Alternative Sites Eliminated from Further Consideration.....	7
3.3 Reasonably Foreseeable Cumulative Actions.....	7
4.0 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION ..	8
4.1 Issues Not Addressed	8
4.2. General Information – Location and Surrounding Land Uses	9
4.3. Air Quality.....	12
4.4. Soils.....	13
4.5. Water Resources.....	14
4.6. Biological Resources.....	16
4.7. Cultural Resources	17
4.8. Utilities.....	19
4.9. Hazardous Waste/Materials	21
4.10. Sustainability	22
5.0 SUMMARY OF EFFECTS AND CONCLUSIONS	23
5.1 Unavoidable Adverse Effects	23
5.2 Irreversible and Irretrievable Commitments of Resources	23
5.3 Conclusions	23
6.0 ACRONYMS	24
7.0 PERSONS CONTACTED	25
8.0 REFERENCES	25
9.0 APPENDICES	27

ENVIRONMENTAL ASSESSMENT
Construction of an Equipment Holding Yard and Improved Field
Maintenance Area
Piñon Canyon Maneuver Site
Fort Carson, Colorado

1.0 PURPOSE, NEED, AND SCOPE

1.1 Introduction

This Environmental Assessment (EA) was prepared to evaluate the potential impacts of the Army's proposal to construct an equipment holding yard and renovate existing facilities to improve field maintenance capabilities at the Piñon Canyon Maneuver Site (PCMS). The Proposed Action will serve to provide adequate facilities to store, secure, and maintain equipment at PCMS to better support units from Fort Carson while conducting their military training mission. This section presents the purpose and need for the Proposed Action, defines the scope of the environmental analysis and issues to be considered, identifies decisions to be made, and identifies other relevant documents and actions.

Fort Carson's approximate 236,000 acre maneuver site provides critical maneuver lands necessary to train large units from Fort Carson and other installations. Fort Carson trainers are continually working to ensure PCMS training capabilities keep pace with constantly improving technology. This enables Soldiers to train for success in combat.

1.2 Purpose and Need for Proposed Action

The purpose for the Proposed Action is to construct and improve existing facilities at PCMS to provide an area for the parking and secure storage of military equipment and to improve field maintenance accommodations for this equipment at PCMS. Located approximately 150 miles southeast of Fort Carson, the PCMS is equipped for bringing the troops, equipment and supplies straight to the site via railways and convoys. The site receives convoys of wheeled vehicles by utilizing Interstate Highway 25 and highways 50, 71 and 350. Upon arrival at the site, wheeled vehicles are parked at the vehicle marshalling area in preparation for the training exercise. Vehicles that cannot be transported via highways, due to restrictions of weight, height and width, are transported by rail and enter the site by rail car on one of six rail spurs. By design, the six rail spurs are located adjacent to the vehicle marshalling area. Co-location of the marshalling area and rail spurs provides an effective way of managing vehicles that are transported by rail. The marshalling area is used to line up vehicles prior to loading or following the unloading. Several challenges arise within the vehicle marshalling area when a Brigade Combat Team (BCT) is arriving or preparing for departure from the PCMS. A BCT training exercise requires approximately four train shipments to the PCMS (one per day for four days), consisting of 225 cars total. Total could be up to an estimated 1180 vehicles (of which 350 would be tracked). As the vehicles arrive at the site, the vehicle marshalling area becomes heavily congested with a combination of parked and moving vehicles. As a precautionary safety measure, all moving vehicles within the vehicle marshalling area are required to have a "ground guide" (a Soldier walking in front of the vehicle to guide it safely through the area). An additional vehicle parking area is needed. By establishing an additional parking area for military vehicles, the current

congestion and safety related risks within the vehicle marshalling area can be reduced to a more manageable level.

The parking area will require security fencing and overhead lights in order to meet standard Army security requirements for military construction as identified for planning purposes per Army Regulation (AR) 420–1. The security fencing would be required during periods where a vehicle is not able to be utilized in the training event due to being non-operational or is awaiting maintenance. Fencing and overhead lighting would afford personnel with the ability to monitor activity near the vehicles. Overhead lighting would also provide additional safety precautionary measures, reducing the risk associated with moving vehicles and personnel during periods of darkness.

Military units that arrive at the site for training are required to conduct vehicle maintenance and services while exposed to the elements. Exposure to the wind, rain, snow and dust are detrimental to the performance of the various levels of maintenance. Military support units utilize tents and temporary shelters during field exercises, but the tents only provide protection for the individual Soldiers and smaller equipment and repair parts. Military equipment is designed to operate in extreme environmental conditions but is susceptible to damage from the elements when the seals, gaskets, weatherproof plugs and internal components are exposed during repairs. The improvement of maintenance facilities would include renovation to the interior of the existing sprung shelters or “clamshells” at the site. The improvements would afford maintenance personnel with the ability to perform vehicle maintenance and repairs without the exposure to inclement weather conditions. This is the Army’s preferred alternative.

1.3 Scope of Analysis

This EA analyzes effects of construction of an equipment holding yard at the PCMS to provide adequate facilities to securely store military vehicles and equipment. It also analyzes the renovation of existing facilities to improve conditions for field maintenance, allowing Fort Carson units to conduct its military mission to meet evolving Army training standards.

This EA considers direct, indirect, and cumulative effects of the Proposed Action and alternatives, including the No Action Alternative. It was prepared in accordance with the National Environmental Policy Act of 1969 (42 USC 4321 *et seq.*), Council on Environmental Quality Regulations (40 CFR Parts 1500-1508), and 32 CFR Part 651 (AR 200-2), *Environmental Analysis of Army Actions*. A specific requirement for this environmental assessment is an appraisal of effects of the proposed construction/renovation of facilities and maintenance of equipment, including a determination of whether or not a Finding of No Significant Impact (FNSI) is appropriate or whether a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) is required.

The Proposed Action and its alternatives were evaluated with respect to their potential effects, both positive and negative, on mission, soils, surface waters, biological resources, cultural resources, and socio-economic conditions at the PCMS and the surrounding area. A brief analysis of the issues eliminated from further analysis can be found in Section 4.1, *Issues Not Addressed*.

1.4 Preliminary Considerations

General areas of consideration were identified during installation planning sessions to analyze the proposed construction of an equipment holding yard and improved maintenance facilities at PCMS. The identified areas were:

- Potential for increased fugitive dust associated with construction activities
- Potential impacts to natural and cultural resources (Land disturbance during construction (e.g., water quality, soil erosion, etc.)
- Potential impacts to wildlife, including any threatened and endangered or sensitive species near the project area
- Potential increase in hazardous materials associated with the maintenance of equipment

These general items, and others, were examined in detail during the preparation of this EA. Specific analysis was performed throughout the process and recorded accordingly within this document.

1.5 Decisions to Be Made

The decision to be made is whether the Proposed Action could cause significant impacts to the human or natural environment. A decision on whether to proceed with the Proposed Action rests on numerous factors such as mission requirements, schedule, safety, availability of funding, and environmental considerations. The Garrison Commander, Fort Carson will make this decision.

1.6 Agency and Public Participation

Public participation opportunities with respect to this EA and decision-making on the Proposed Action are guided by the National Environmental Policy Act (NEPA) and 32 CFR 651 [AR 200-1]. 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 an interest in the Proposed Action, including minority, low-income, disadvantaged, and Native American groups, will be given the opportunity to comment on this EA.

Upon completion, the EA will be available to the public for 30 days, starting from the first day of publication, along with a Draft Finding of No Significant Impact (FNSI), if applicable. At the end of the 30-day public review period, the Army will consider all comments submitted by individuals, agencies, or organizations on the Proposed Action, EA, or Draft FNSI. A Notice of Availability (NOA) will be announced in local media, and the documents will be available online at: <http://www.carson.army.mil/DPW/nepa.html>

Anyone wishing to comment on the Proposed Action or request additional information must write to the Fort Carson NEPA Program Manager, Directorate of Public Works, Environmental Division, 1626 Evans Street, Building 1219, Fort Carson, Colorado 80913-4362, or call (719) 526-4666. Comments may also be submitted via email to: usarmy.carson.imcom-central.list.dpw-ed-nepa@mail.mil. All comments received and responses to comments will be shown in Appendix A.

1.7 Legal Framework

Fort Carson is guided by relevant statutes (and their implementing regulations) and Executive Orders (EOs) that establish standards and provide guidance on environmental and natural resources management and planning. These include, but are not limited to, the following:

- Clean Air Act;
- Clean Water Act;
- Noise Control Act;
- Endangered Species Act;

- Bald and Golden Eagle Protection Act;
- Migratory Bird Treaty Act;
- National Historic Preservation Act;
- Archaeological Resources Protection Act;
- Resource Conservation and Recovery Act;
- Toxic Substances Control Act;
- 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 13423, Strengthening Federal Environmental, Energy, and Transportation Management;
- EO 13175, Consultation and Coordination with Indian Tribal Governments;
- EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds; and
- EO 13514, Federal Leadership in Environmental, Energy, and Economic Performance

2.0 DESCRIPTION OF PROPOSED ACTION

2.1 Construction of Equipment Holding Yard and Improvements to Maintenance Facilities at PCMS

The Proposed Action is to construct new facilities and improve existing facilities at the PCMS in order to facilitate the secure storage of military vehicles and equipment and to improve working conditions for field maintenance of equipment and vehicles. The Proposed Action includes the necessary infrastructure improvements for the facilities involved, such as electrical connectivity, road improvements and communication lines. The following are detailed descriptions of the proposed construction and improvements:

2.1.1 Relocate Base Operations Equipment Area:

The Proposed Action includes relocation of an existing storage area. The existing yard is used as a Directorate of Public Works (DPW) / Contractor storage yard. The equipment and supplies would be relocated to the north, adjacent to the Morris Ranch. The 60,000 square foot (SF) area would be graveled and secured with 700 linear feet (LF) of fencing. Two security lights would be installed.



Figure 2.1.1 Proposed Relocation of Base Operations Equipment Area

Upon completion, the existing DPW storage yard would be cleared and all equipment and supplies would be relocated to the new proposed location.

2.1.2 Equipment Holding Yard Construction:

The Proposed Action would include new construction of a secured holding yard adjacent to the existing DPW storage yard. This would include 80,000 SF of surface gravel. After the relocation of the DPW storage yard has been completed, the two areas would be combined as one yard. The area would be fenced (800 LF of new fencing and 120 LF repair of existing fence), and 8 security lights would be installed. The total area would hold approximately 480 vehicles. There are two potential locations for the proposed new construction; to add to the existing storage yard to the north (1) or to the west of the existing yard (2) (see Figure 2.1.2).

2.1.3 Renovation of Clamshells:

The Proposed Action includes renovation of the two existing clamshells. A 20,600 SF concrete slab will be constructed at each clamshell. Both clamshells will be fenced (840 LF each) and security lights will be installed (4 lights per clamshell).



Figure 2.1.2 Location for Proposed Equipment Storage Yard Construction



Figure 2.1.3 Location for Proposed Clamshells Renovation

3.0 ALTERNATIVES CONSIDERED

This section describes alternatives to the Proposed Action. 32 CFR Part 651 (AR 200-2) and Council on Environmental Quality regulations (40 CFR 1500) require the identification of reasonable alternatives to the Proposed Action, including the No Action Alternative.

3.1 No Action Alternative

Consideration of the No Action Alternative is a requirement of the NEPA process. It provides a basis of comparison for the Proposed Action and also addresses issues of concern by avoiding or minimizing effects associated with the Proposed Action. Under this alternative there would be no construction or improvement to the existing facilities to support the secure storage and improved field maintenance facilities for military vehicles and equipment. Implementing the No Action Alternative would require the units to provide 24-hour manned security throughout the course of the training event on equipment not in use. This necessary security measure would detract from the quality of the training event in general and would specifically reduce the effectiveness of the training for the individual Soldiers performing the security detail. It would also not provide improved conditions for the units to perform the necessary field maintenance and/or repairs when equipment failed. Maintenance in the open, exposed to the elements has a long-term debilitating effect on both the Soldiers and the equipment. The Soldiers are more prone to fatigue when exposed to intense heat or cold thereby extending the maintenance process. Highly technical or precision engineered items such as jet turbine engines for Abrams tanks are subject to more frequent failure if not protected from the elements during the maintenance, repair, or replacement process. This in turn can drive up costs and slow down through-put of equipment in maintenance.

3.2 Alternative Sites Eliminated from Further Consideration

Alternatives to construct a secure equipment holding yard and field maintenance facilities on other sites at PCMS were eliminated based on the following:

The proposed location for construction and renovation is in an already disturbed area (within the existing cantonment area of PCMS) and would minimize environmental effects (e.g., there are no National Register of Historic Places-eligible cultural resources or Native American sacred sites; avoidance of effects to federal-listed species, special interest areas, and wetlands), and would minimize cost (e.g., utilities, infrastructure, construction).

3.3 Reasonably Foreseeable Cumulative Actions

The 4th Infantry Division (ID) is currently considering ways to avoid millions in rail costs by storing some mechanized equipment at PCMS, and rotating crews for training, rather than continue the current practice of multiple rail shipments back and forth between Fort Carson and PCMS for each mechanized training event. If such consideration results in a Proposed Action requiring NEPA analysis, this analysis would be conducted as appropriate and applicable prior to any final decisions impacting PCMS.

Cumulative impacts consider the cumulative effects of past, present, or reasonably foreseeable actions. The impacts of implementing the Proposed Action would be concurrent with other actions at PCMS. Other projects under consideration for the FY 13 - 15 timeframe at PCMS include the construction and operation of a vehicle wash facility, construction of helipads, removal/remediation of the existing fuel yard, water tank repair, repair of existing air strip, routine repair and maintenance of existing facilities and grounds, repair of existing railyard tracks and ballasts, construct new fuel facility, firebreak construction, repair and replace damaged culverts on main supply routes (MSRs), routine training area maintenance/repair, and upgrades/improvements to Range 9.

4.0 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION

This section discloses potential environmental effects of each alternative and provides a basis for evaluating these effects in context relative to effects of other actions. Effects can be direct, indirect, or cumulative. Direct effects occur at the same place and time as the actions that cause them, while indirect effects may be geographically removed or delayed in time. Council on Environmental Quality (CEQ) guidance states that a cumulative impact is an effect on the environment that results from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative effects can result from individually minor, but collectively significant, actions taking place locally or regionally over a period of time.

This environmental assessment focuses on resources and issues of in the following resource areas:

- Air Quality
- Soils
- Water Resources
- Biological Resources
- Cultural Resources
- Utilities
- Hazardous Waste/Materials
- Sustainability

Areas with no discernible concerns or known effects, as identified in the issue elimination process (Section 4.1, *Issues Not Addressed*), are not included in this analysis. For ease in comparing environmental effects with existing conditions and mitigation specific to each environmental area of concern, each below section will describe existing conditions, describe the effects of each alternative, identify any cumulative effects on that area of concern, and describe site-specific mitigation. A summary (Table 5.1) of environmental consequences is provided in Chapter 5.

4.1 Issues Not Addressed

Initial issue analyses resulted in the elimination of some potential issues because they were not of concern or were not relevant to the Proposed Action and alternatives. Brief discussions of the rationale for these decisions are below.

Environmental Health and Safety Risks for Children

Executive Order No. 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, (62 Federal Regulation No. 78) was issued in April 1997. This Executive Order directs each federal agency to “ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health or safety risks”. Sensitive areas for exposure to children are schools and family housing areas. Environmental health and safety risks are attributable to products that a child might come in contact with or ingest as well as safety around construction areas and areas of buildings that pose safety hazards. PCMS is a remote training area. Neither the Proposed Action nor its alternatives would change environmental health or safety risks to children since the Proposed Action area is well within the boundaries of PCMS in an area designated for training (the nearest boundary to the site is over 1 mile, and surrounded by ranch and farmlands). Neither the Proposed Action nor its alternatives

would have significant or disproportionate adverse effects on children or pose health or safety risks.

Environmental Justice

Executive Order No. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 Federal Regulation No. 32), issued in February 1994, provides that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations”. Neither the Proposed Action nor its alternative would change any existing impacts with regard to minority and low-income populations.

Geology and Topography

PCMS is an existing training area. Neither the Proposed Action nor its alternatives would have any measurable effects on geologic resources or topography.

Land Use

PCMS is an existing training area. Neither the Proposed Action nor its alternatives would change existing land use. Lands affected by the Proposed Action on PCMS would continue to be used primarily for military training.

Air Space Use

PCMS is an existing training area. Neither the Proposed Action nor its alternatives would change existing airspace use on Fort Carson.

Noise Environment

PCMS is an existing remote training area. The bordering area of PCMS is rural, mainly ranch and farm land. Neither the Proposed Action nor its alternatives would change the noise environment conditions from what currently exists. Noise generated at these facilities would be minor and temporary during construction.

Transportation

There would be no significant traffic changes or impacts resulting from the Proposed Action or the alternatives. Off-post movement of unit vehicles between Fort Carson and PCMS would remain unchanged by this action. Potential changes to any on-post traffic patterns at PCMS, if any, would be minimal.

Socioeconomics

There would be no economic impact resulting from the construction of the Proposed Action.

Visual and Aesthetic Resources

PCMS is an existing training area. Neither the Proposed Action nor alternatives would impact visual or aesthetic resources as the proposed construction is already a built environment and disturbed and over one mile away from Highway 350.

4.2. General Information – Location and Surrounding Land Uses

The PCMS, occupying approximately 236,000 acres, is located about 150 miles southeast of Fort Carson and located in Las Animas County, Colorado (Figure 4.2.a). The PCMS measures about 31 miles east to west and about 21 miles north to south. The PCMS cantonment area is located at the west central edge of PCMS, adjacent to Colorado Highway 350. PCMS is bordered on the north by the Comanche National Grassland and private property; on the east by the Purgatoire River, private property, Colorado state lands and U.S. Forest Service (grassland);

on the south by County Road 54 and private property; and on the west by State Highway 350 and private property (Figure 4.2.b). Land use adjacent to the PCMS is primarily used for livestock grazing, agriculture, and recreation.

4.2.1 Population

A few civilian employees are permanently assigned to PCMS. The surrounding area is sparsely populated; the population of Las Animas County was estimated to be 15,037 in 2011 (U.S. Census Bureau).

4.2.2 Climate

The climate in the PCMS area is classified as dry continental with average annual precipitation of approximately 13.5 inches, fluctuating widely from year to year and between areas of the parcel (U.S. Department of Army 1980). Precipitation at the PCMS primarily results from either frontal storms or convective storms. Frontal storms can occur throughout the year and have varying strength and frequency; the largest quantities of precipitation are associated with periods of moist airflow from the Gulf of Mexico. Monthly averages for temperatures and precipitation collected by the U.S. Weather Service (www.weather.com) for Trinidad are shown in Table 4.2.

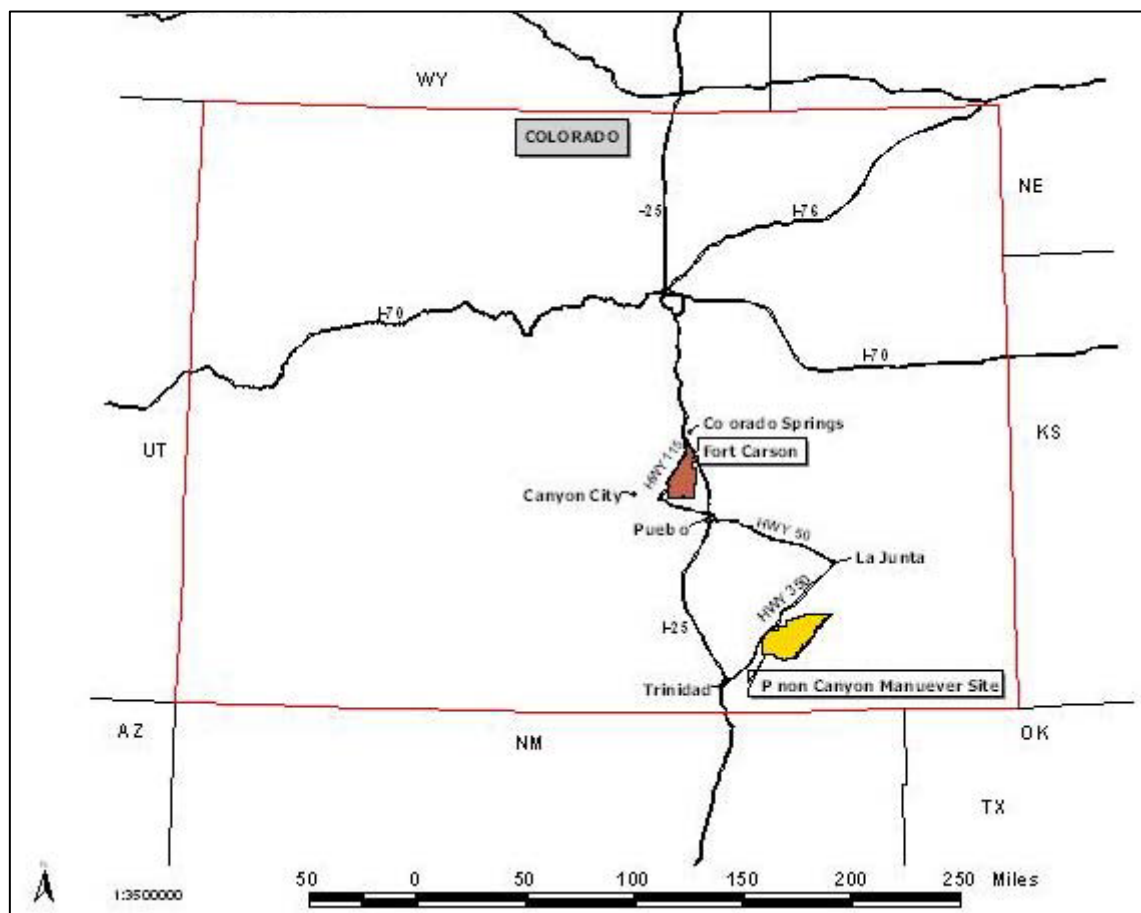


Figure 4.2.a Location of Fort Carson Military Reservation and Piñon Canyon Maneuver Site

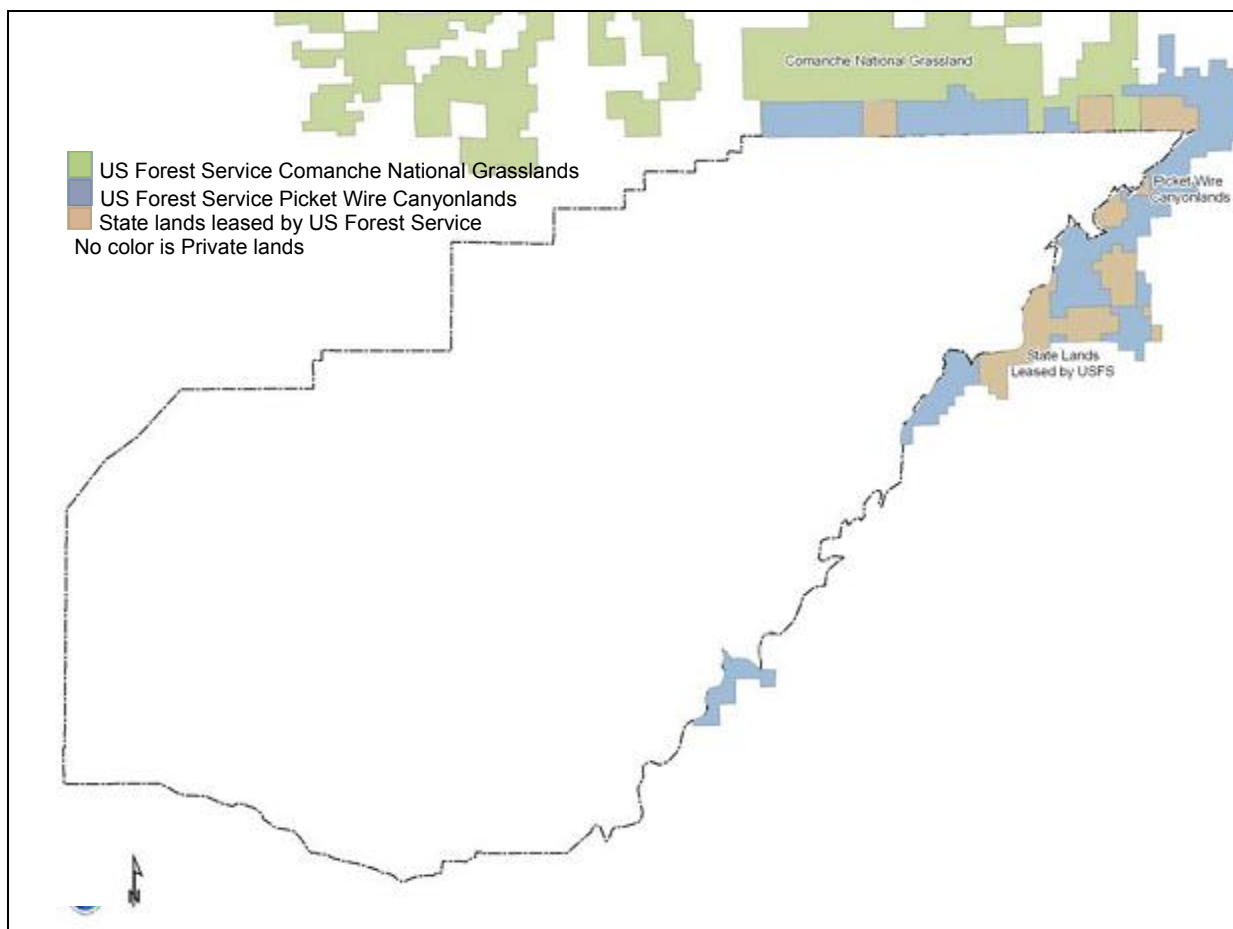


Figure 4.2b Lands Neighboring Piñon Canyon Maneuver Site

Table 4.2. Monthly Average Temperatures and Precipitation for Trinidad, CO.

Month	Avg. High	Avg. Low	Mean	Avg. Precip	Record High	Record Low
Jan	49°F	19°F	34°F	0.52 in.	78°F (1997)	-32°F (1963)
Feb	50°F	21°F	36°F	0.61 in.	78°F (1957)	-21°F (1948)
Mar	57°F	28°F	43°F	1.16 in.	84°F (1971)	-15°F (1948)
Apr	65°F	35°F	50°F	1.28 in.	89°F (2002)	2°F (1997)
May	74°F	44°F	59°F	1.72 in.	96°F (2002)	22°F (1978)
Jun	83°F	52°F	68°F	1.71 in.	101°F (1994)	31°F (1954)
Jul	87°F	57°F	72°F	2.68 in.	101°F (2005)	43°F (1980)
Aug	84°F	56°F	70°F	2.68 in.	98°F (2002)	37°F (1979)
Sep	78°F	48°F	63°F	1.33 in.	94°F (1999)	23°F (1984)

<u>Oct</u>	68°F	37°F	53°F	1.26 in.	90°F (1964)	2°F (1993)
<u>Nov</u>	56°F	26°F	41°F	0.82 in.	80°F (2007)	-15°F (1976)
<u>Dec</u>	47°F	19°F	33°F	0.57 in.	82°F (1964)	-16°F (1983)

4.3. Air Quality

4.3.1 Existing Conditions

PCMS is in attainment for all criteria pollutants and is expected to remain in attainment with all potential future National Ambient Air Quality Standards (NAAQS). The combustion of fossil fuels in equipment such as boilers, generators, and motorized vehicles does not substantially contribute to the emissions generated at the PCMS. The major sources of Particulate Matter (PM) emissions generated at the PCMS are from prescribed burning, the use of smoke grenades, and fog-oil used during training exercises. Additional PM emissions result from vehicle travel on unpaved roads and construction activities. The Installation manages fugitive dust and smoke obscuration under Colorado Air Quality Control Commission Regulation No. 1 (Fort Carson 2012a). Management includes taking action to ensure military maneuver actions do not result in emissions greater than 20 percent opacity crossing the Installation boundaries. Soldiers observe training operations for fugitive dust generation and smoke obscuration and should stop those activities where fugitive dust or smoke obscuration has the potential to leave the Installation.

4.3.1.1 Climate and Greenhouse Gases (GHG)

The Installation reports GHG emissions from Fort Carson, as required, on an annual basis per 40 CFR 98 Subpart C.

4.3.2 Environmental Consequences – Proposed Action

Implementation of this project would result in slight emissions during construction. Operation of construction vehicles and heavy equipment during the construction phase (construction, grading, and paving) would result in minor, temporary negative effects on air quality. These negative effects would be primarily in the form of increased exhaust pollutants that would be minimized through good vehicle maintenance. Windblown soil and dust also could occur during the construction phase as a result of equipment movement over exposed soil areas. Generation of fugitive dust would be minimized through the use of best management practices (BMPs) to control dust (i.e., wetting the surfaces and through the re-vegetation of disturbed areas as soon as possible). A Land Disturbance Air Pollution Emission Notice (APEN) may be required for this activity.

The primary short-term air quality impacts resulting from this activity would be a temporary increase of all air pollutants during construction, which would cease upon the completion of ground-disturbing activities.

4.3.3 Environmental Consequences – No Action

There would be no change in Air Quality under the No Action Alternative.

4.3.4 Cumulative Effects

This activity could result in increased fugitive dust emissions from any increased troop activity. These negative effects would be minimized through BMPs found in the Fugitive Dust Plan.

4.3.5 Site-Specific Mitigation

Best management practices to mitigate fugitive dust should be followed to minimize impacts.

4.4. Soils

4.4.1 Existing Conditions

Within the cantonment area of PCMS, 6 soil categories were identified, however only one soil type is potentially impacted by the Proposed Action (Figure 4.4.1). The soil composition and soil description was collected from the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (USDA, 2013). The soil type that would be potentially affected by the Proposed Action is mainly Wilid silt loam. Wilid silt loam is a well drained soil, has a 0 to 3 percent slope and depth to restrictive feature is more than 80 inches. The typical profile is 0 to 6 inches silt loam, 6 to 10 inches silty clay loam, 10 to 30 inches silty clay loam, 30 to 44 inches silty clay loam, and 44 to 79 inches of silt loam. Available water capacity is high (about 10.2 inches).

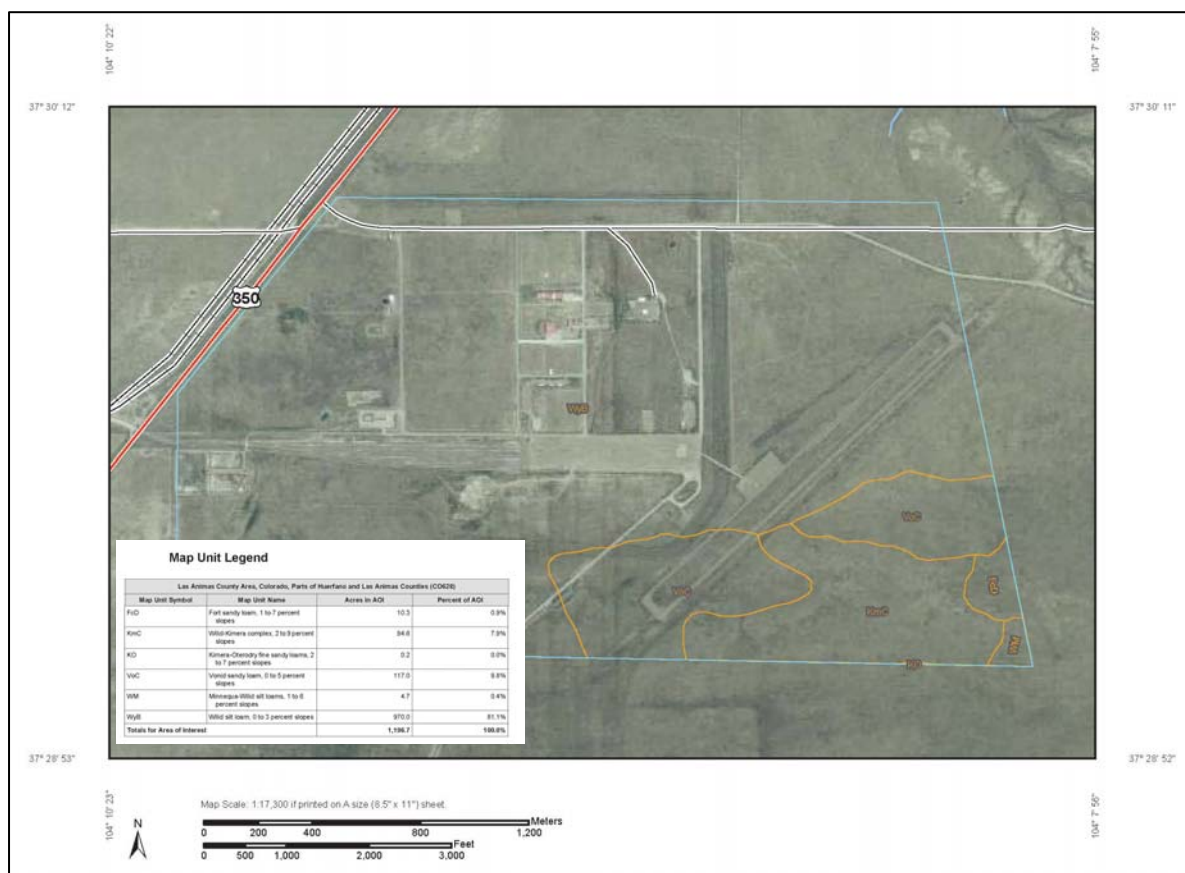


Figure 4.4.1 Soils within the cantonment area at Piñon Canyon Maneuver Site.

4.4.2 Environmental Consequences – Proposed Action

The Proposed Action would be constructed on already heavily disturbed soils in the cantonment area. Areas disturbed by construction could experience soil losses by water and wind erosion, unless such disturbance is mitigated.

4.4.6 Environmental Consequences – No Action

Soils would not be affected under this alternative. No new construction would occur, and erosion rates would not exceed those occurring at the present.

4.4.4 Cumulative Effects

The Army's use of PCMS resulted in a relatively permanent changed soil structure where construction has occurred (e.g., cantonment area, combat landing strip, improved roads). The Proposed Action continues this process on those areas where buildings and other facilities would be located. This cumulative effect would not be significant.

4.4.5 Site-Specific Mitigation

Best management practices to control erosion, such as the use of silt fences, would be used to ensure soils do not erode from sites disturbed by project construction. If contamination on construction sites is discovered during preconstruction or construction, appropriate soil remediation would be implemented. Any grubbed soil should be saved for future use. Due to its fine texture, any stockpile will require protection from wind and water erosion. Stockpile location will require coordination with DPW Operations and PCMS Environmental. Recommended location might be the current stockpile site south of the rail yard. Shaping the stockpile appropriately and planting perennial grass cover is recommended.

4.5. Water Resources

Fort Carson policy is to eliminate or minimize the degradation of all water resources on PCMS and Fort Carson and ensure compliance with all applicable federal, state and local water quality standards (Fort Carson Regulation 200-1). Water resources are managed in coordination with U.S. Geological Survey, Natural Resources Conservation Service, U.S. Fish and Wildlife Service (USFWS), and many other external agencies.

Fort Carson's Integrated Training Area Management (ITAM) program insures the sustainment of lands by assessing, rehabilitating and maintaining the training land at PCMS. The U.S. Geological Survey has been hired by Fort Carson to monitor the watersheds on PCMS to confirm ITAM's efforts are successful. The drivers for the watershed protection of the ITAM program are the Fort Carson Sustainability Goals, maintaining erosion and sediment control measures identified in the Section 404 regional permit, and the Programmatic EA for the Erosion and Sediment Control Program.

The maintenance yard within the PCMS cantonment area complies with the U.S. Environmental Protection Agency (USEPA) Multi-Sector General Permit (MSGP) and the associated site specific *Stormwater Pollution Prevention Plan*.

In addition, the *PCMS Stormwater Management Plan* (Fort Carson 2012b) is designed to reduce the discharge of pollutants from PCMS to drainage ways, to protect water quality, and to satisfy Colorado's water quality standards.

4.5.1 Existing Conditions

4.5.1.1 Surface Water and Watersheds

The majority of PCMS, is located in the Purgatoire River watershed, which is a part of the larger Arkansas River basin. The Purgatoire River is on the state of Colorado's 303d-list for Selenium (Se). The cantonment area is in the Simpson and Timpas watersheds. The Proposed Action is to take place in the Simpson watershed. Topographical maps indicate that this portion of the cantonment area slopes from east to west, and eventually into a playa lake named Simpson Lake.

4.5.1.2 Groundwater

The primary source of groundwater is the Dakota-Purgatoire aquifer. Recharge on PCMS occurs through precipitation and subsurface inflow from nearby aquifers. Water quality testing of groundwater determined that some of the groundwater beneath PCMS contains concentrations

of dissolved solids, sulfate, iron, manganese, fluoride, and radionuclide constituents that exceed domestic or public-use water quality standards. Additionally, there are 95 wells at PCMS, but few are currently functional. See the 2011 *CAB Stationing PEIS* for more information on groundwater resources. Additionally, see the utilities section of this EA on potable water use.

4.5.1.3 Floodplains

Floodplains have not been mapped on PCMS. There are flood prone areas along the drainages in the training areas, but the cantonment area does not typically flood. See the 2009 *Fort Carson Grow the Army EIS* for more information.

4.5.2 Environmental Consequences - Proposed Action

4.5.2.1 Surface Water and Watersheds

The potential for erosion increases with the construction required to execute the Proposed Action. However, this risk can be mitigated by complying with the USEPA Construction General Permit. For the Proposed Action, a Notice of Intent (NOI) must be submitted to be covered under USEPA's Construction General Permit (CGP). A Stormwater Pollution Prevention Plan (SWPPP) will also be required. Irrigation and maintenance including weed mowing may be required until seeded area is re-vegetated. Stabilization will include perennial grasses, annual weeds will not be accepted as stabilization. All items in the CGP must be fulfilled before filing for terminating Construction General Permit coverage (filing the Notice of Termination).

The final post-development footprint of new surfaces (sidewalks, buildings, parking, non-vegetated landscaping, etc.) will exceed 5000 SF in the Proposed Action. Therefore it is required to implement Post-Development stormwater controls that return the developed area to pre-development hydrology. This is a requirement of Section 438 of the Energy Independence and Security Act (EISA). In accordance with Department of Defense (DoD) memo, "DoD Policy on Implementing Section 438 of the Energy Independence and Security Act (EISA)" dated January 10, 2010, the difference in discharge between the pre-construction and the proposed impacted condition will be the minimal target amount that will be required to be mitigated through permanent BMP design.

Fort Carson's goals are to maximize the utilization of multiple BMP placements at each new development/redevelopment site by focusing on Low Impact Development (LID) BMPs, such as swales and berms, bioretention, infiltration technologies, and small check dams.

The Proposed Action will require an update to the MSGP SWPPP to mitigate the potential for discharges from industrial activities to reach surface water.

4.5.2.2 Groundwater

The proposed construction activities would create additional acres of gravel surface and some concrete up-slope from the constructed protective drainage diversion east of the billets complex, however this would have a negligible effect on groundwater.

4.5.2.3 Floodplains

The Proposed Action would not impact the floodplain.

4.5.3 Environmental Consequences - No Action

4.5.3.1 Surface Water and Watersheds

There would be no change in existing surface water and watersheds under the No Action alternative.

4.5.3.2 Groundwater

There would be no change in existing groundwater under the No Action alternative.

4.5.3.3 Floodplains

There would be no change to the existing floodplain under the No Action alternative.

4.5.4 Cumulative Effects

The surface water and watershed impacts are required to be 100 percent mitigated. Therefore, no cumulative effects are expected.

No cumulative effects on the groundwater or floodplain are anticipated to occur.

4.5.5 Site-Specific Mitigation

Use Low Impact Development (LID) BMPs.

4.6. Biological Resources

4.6.1 Existing Conditions Vegetation and Wildlife, including Threatened and Endangered Species

PCMS is located within the Central Shortgrass Prairie Ecoregion and is within upper regions of the Prairie Grasslands Plant Zone. PCMS consists of approximately 41 percent grasslands, 33 percent shrublands, 17 percent forest and woodlands, and 9 percent other (Fort Carson, 2007). Approximately 25 percent of the cantonment area is mowed native grasses and landscaping plants. No plant species appear on the USFWS list of Federally-listed endangered, threatened, and candidate species for Las Animas or Otero counties (USFWS, 2010).

The African rue (*Peganum harmala*), a noxious weed that is a List A species, has been eradicated from PCMS and monitoring continues per the Installation's African rue eradication plan, a plan coordinated with the Colorado Department of Agriculture (Fort Carson, 2007c). No other "A" Listed species are known to occur on PCMS. Besides African rue, as reported in the 2011 *CAB Stationing Programmatic EIS (PEIS)*, Russian knapweed and Canada thistle are the weed species of most concern at PCMS. Control efforts for the Russian knapweed have been concentrated on mechanical, such as burning to reduce old biomass, and then applying chemical methods to new growth. In the summer of 2012, a biological control program for Russian knapweed was begun. Canada thistle and Tamarisk are managed using integrated methods. Spotted knapweed has been found at the western end of the railhead, near Highway 350. It is being aggressively treated with chemicals. There are no known populations of Colorado State listed invasive plants in the area of the Proposed Action. Integrated Pest Management, as mandated by DoD, is practiced at PCMS by the Installation.

The status of wildlife species on PCMS also remains consistent with that reported in the 2011 *CAB Stationing PEIS*. The mountain plover, proposed to be listed as a threatened species, occurs on Fort Carson and PCMS during the breeding and migratory seasons. It is rare on both Installations, nesting at only a few sites. Further information on PCMS wildlife, to include the Triploid checkered whiptail (*Cnemidophorus neotesselatus*), designated as a Species at Risk by the Army, and Colorado State species of concern, such as the peregrine falcon, is available from the Installation's Integrate Natural Resources Management Plan (INRMP) and the 2009 *Fort Carson Grow the Army EIS* (Fort Carson, 2007; Fort Carson, 2009).

4.6.1.2 Wetlands

PCMS has no wetland areas in the cantonment area. Most wetlands on the PCMS are associated with side canyons and streams that are tributaries to the Purgatoire River and Timpas Creek and water developments.

4.6.2 Environmental Consequences - Proposed Action

4.6.2.1 Vegetation and Wildlife, including Threatened and Endangered Species

There would be short-term minor vegetation impacts during construction activities. Any incidental damage to other areas would be re-vegetated with native vegetation. The Proposed Action could have a negative impact on the eastern wind break trees, but can be mitigated if necessary. There are no wildlife concerns under the Proposed Action as this would occur within the cantonment area of PCMS and is not in or near sensitive wildlife areas.

4.6.2.2 Wetlands

There are no wetland concerns in the cantonment area.

4.6.3 Environmental Consequences - No Action

4.6.3.1 Vegetation and Wildlife, including Threatened and Endangered Species

Vegetation or wildlife resources would not be affected by the No Action Alternative.

4.6.3.2 Wetlands

There are no wetland concerns under the No Action Alternative.

4.6.4 Cumulative Effects

Vegetation, wildlife, and wetland resources effects from past and current Army actions, when added to the anticipated environmental effects of the Proposed Action, would not result in any significant effect to these resources. PCMS land condition, using vegetation as an indicator, improved from the time of Army acquisition through about 1992 and has been relatively stable since then. However, Army occupation of PCMS has resulted in permanently changed vegetation where construction and associated development has occurred (e.g., cantonment area, combat landing strip, improved roads). The Proposed Action continues this process on those areas where buildings would be located. This cumulative effect would not be significant.

4.6.5 Site-Specific Mitigation

Impact to vegetation under the Proposed Action would be limited to areas of construction and any damage would be re-vegetated with native vegetation. Avoid the removal and/or damage of trees during construction of the Proposed Action by protecting the critical root zone (drip line) of the tree and the tree trunk. Proper tree care is described in the Installation Design Guide.

4.7. Cultural Resources

4.7.1 Existing Conditions

Archaeological personnel from Fort Carson's Cultural Resources Management Program (CRMP) have made site visits and reviewed all archaeological inventories conducted in and around the areas of the Proposed Action. Phase I archaeological survey of the area was performed by the University of Denver (DU) in 1983 and 1984 (Andrefsky 1990), and 100% of the cantonment was recently resurveyed by the CRMP (Miller 2010). In consultation with the State Historic Preservation Officer (SHPO), Native American Tribes (Tribes) with a cultural affiliation to Fort Carson and PCMS lands, and other consulting and interested parties, it is agreed that the PCMS cantonment area contains no sites eligible for inclusion in the National Register of Historic Places (NRHP).

4.7.2 Environmental Consequences – Proposed Action

All project components of the Proposed Action would occur on previously disturbed landforms, and past archaeological survey and evaluation projects demonstrate that there are no significant cultural materials within the project areas. The Fort Carson Cultural Resources Manager (CRM) has initiated consultation in accordance with Section 106 of the National Historic Preservation Act (NHPA), as required. As there are no historic properties within the project areas, and neither the projects as proposed nor any component thereof will have an impact, visually or physically, on other types of historic resources, the Fort Carson CRM has recommended a finding of “*no historic properties affected*” for the Proposed Action.

The Section 106 process involves consultation with the SHPO, Tribes, and other parties. Fort Carson prepared the appropriate undertaking review for the proposed action and a determination was made by the Cultural Resources Manager (CRM) of “no historic properties affected” in accordance with 36 CFR 800.4(d)(1) of the National Historic Preservation Act (NHPA). The documentation was mailed to the SHPO, Tribes, and other interested parties on March 7, 2013. Concurrence with Fort Carson's determination was received from the SHPO (March 7, 2013), the Colorado Council of Professional Archaeologists (CCPA, April 1, 2013), and the Cheyenne and Arapaho Tribe of Oklahoma (April 1, 2013). Letters were also received from the Otero County Commissioners (April 15, 2013) and Colorado Preservation, Inc. (CPI, April 18, 2013) expressing concern that the Area of Potential Effects (APE) for the proposed action was inadequate, resulting in an adverse effect to the Santa Fe Trail, and that the Santa Fe Trail Association and National Trails Office of the National Park Service had not been included in the consultation. After considerable research, Fort Carson maintains that the APE was adequate for the nature and scope of the proposed project, and remains of the opinion that no significant segment of the Santa Fe Trail is within close enough proximity to be negatively impacted by the proposed action. Fort Carson responded to Otero County and CPI on October 24, 2013, and included the National Park Service and the Santa Fe Trail Association in the response correspondence. All documentation related to the Section 106 consultation is found in Appendix B.

Should potential impacts to any historic properties be identified in the future due to a change in the submitted scope of work, proposed location, or due to activities proposed beyond the scope of the Proposed Action, additional Section 106 consultation would be required. In the event that subsurface cultural materials are encountered during any project activity, Fort Carson's Inadvertent Discovery of Archaeological, Cultural, or Paleontological Materials Standard Operating Procedure (SOP) would be implemented, and additional Section 106 consultation initiated.

4.7.3 Environmental Consequences - No Action

There would be no effects to historic properties under the No Action alternative.

4.7.4 Cumulative Effects

Cumulative impacts to cultural resources consist of past, present, and reasonably foreseeable future actions that may affect archeological or historic resources, or their settings on and near the PCMS. As is true of cultural and historic resources world-wide, impacts to such places are tied to land use; i.e., a particular culture's view of the landscape it occupies and the societal functions that the land fulfills for that group. Each subsequent population or activity that occupies a landscape produces an impact to past land use practices and cultural remains. The foundation of archaeological and anthropological investigation was formed within these tenets of human progress in order to understand the past, present, and future. Landscapes with repeated use tend to contain high site densities, as human populations are drawn to natural resources, such as water, arable land, minerals, and climates hospitable for game and crops. Repeated land use also means re-use of both natural and man-made materials, such as is seen in the remnants of numerous stone structures scattered throughout Colorado.

It is anticipated that the Proposed Action would not result in a significant adverse cumulative impact to cultural resources due to the historic use of the PCMS cantonment area and the continued management strategies employed by the Fort Carson CRMP. As mandated by federal law, Fort Carson conducts archaeological and historic building inventories and evaluations within resource areas prior to a potential impact-generating activity. Each archaeological site identified is recorded, evaluated for potential inclusion in the NRHP, and the cultural landscape is analyzed. If applicable, significant sites are set apart using a variety of site protection methods. In this way, the information gained ensures that the cultural characteristics and lifeways of those who have come before us is not lost to history, but rather contributes to it. The information acquired is used for future land management, is also made available to qualified researchers for professional purposes, and is used in educational outreach efforts.

4.7.5 Site-Specific Mitigation

Unless identified through the Section 106 process discussed in 4.7.2, no site-specific mitigation is required for the Proposed Action.

4.8. Utilities

4.8.1 Existing Conditions

4.8.1.1 Potable Water

PCMS purchases treated potable water from the City of Trinidad for use in the cantonment area as well as for Soldier use in training areas, fire fighting and some stock tanks used by wildlife.

4.8.1.2 Wastewater

The PCMS cantonment area uses evaporative, non-discharging treatment/oxidation ponds, constructed in 1985 for sanitary wastewater treatment. The PCMS fuel point drains to a central collection pipe, connected by underground pipe to a dedicated pond equipped with an oil water separator which acts as a means to capture any fuel spills that might occur at that location. The treatment facility is located in the southwestern corner of the PCMS cantonment area. The treatment/oxidation ponds are currently operating at levels below their capacity (Fort Carson, 2010a).

The treatment facility was originally designed for continuous use by a brigade sized unit. The number of personnel at the PCMS cantonment area varies over time from fewer than 10 to several thousand. The oxidation ponds were upgraded in the summer of 2006 and subdivided into smaller ponds to more readily accommodate the fluctuation in flows. The modified system was designed for an average daily flow capacity of 10,052 gallons per day (38,051 liters per day [Lpd]). The wastewater ponds do not have a discharge permit because the ponds are designed to be non-discharging. Sanitary wastewater from the PCMS cantonment is conveyed via approximately 7,000 feet (2,134 m) of 8-inch-diameter and 12-inch-diameter (20 and 30 cmdiameter) mains. The location of this conveyance system is generally known. Not all facilities within the PCMS cantonment area direct their sanitary wastewater to the treatment ponds. The guard trailer and the chlorination building discharge to leach fields. Portable toilets are used in the training areas when septic systems are not available (such as during training activities in the training areas). With the recent upgrade of the treatment/oxidation ponds, the existing wastewater system now has the capacity to accommodate very low flows during non-training periods and high flows during training events.

4.8.1.3 Stormwater

The existing stormwater infrastructure at PCMS in the area of the Proposed Action uses overland flow and low impact development features within the landscape.

4.8.1.4 Solid Waste

Solid waste pickup at PCMS is handled by an outside contractor, and the waste is transported to appropriately permitted disposal facilities in Trinidad. Refuse and construction-related solid waste are managed by the DPW. Solid waste generated in the training areas is collected and returned to the cantonment area for disposal and transport to appropriately permitted facilities.

4.8.1.5 Energy, Heating, and Cooling

PCMS purchases electricity from San Isabel Electric Association. The capacity of the existing transformer is 2,000-kilovolt amperes (kVA), and the existing demand is 300 kVA; therefore, electricity demand at the site is below the design capacity of the existing transformer. Currently, the majority of buildings in the PCMS cantonment area are heated by the use of oil fueled furnaces with some buildings utilizing propane. Heating oil and propane, transported to PCMS by truck, are stored in building specified underground storage tanks. Distribution lines are not required as storage of these fuels occurs at the point of use. Heating oil is not used outside the cantonment area and natural gas is not used at all at PCMS.

4.8.2 Environmental Consequences – Proposed Action

4.8.2.1 Potable Water

Implementation of the Proposed Action is not anticipated to have any significant negative impacts to potable water at PCMS.

4.8.2.2 Wastewater

Implementation of the Proposed Action is not anticipated to have any significant negative impacts to wastewater at PCMS.

4.8.2.3 Stormwater

Implementation of the Proposed Action has the potential for some minor negative impacts without infrastructure upgrades, however Fort Carson is required to comply with Section 438 of the Energy Independence and Security Act (EISA), therefore the existing swales and detention areas would be improved to meet the EISA Section 438 requirement (See Section 4.8.5).

4.8.2.4 Solid Waste

Implementation of the Proposed Action is not anticipated to have any significant negative impacts to solid waste at PCMS.

4.8.2.5 Energy

Implementation of the Proposed Action would have some minor negative impacts at PCMS, however this would be less than significant. Energy use could be further reduced with using the most energy efficient exterior lighting possible, such as light-emitting diodes (LED).

4.8.3 Environmental Consequences – No Action

4.8.3.1 Potable Water

There would be no change in potable water, wastewater, stormwater infrastructure, and solid waste under the No Action Alternative.

4.8.3.5 Energy

There would be no change in energy under the No Action Alternative.

4.8.4 Cumulative Effects

Implementation of the Proposed Action would have some cumulative minor negative impacts to energy and wastewater at PCMS, however this would be less than significant. No cumulative effects are anticipated for stormwater because all additional stormwater from the Proposed Action is required to be 100% mitigated.

4.8.5 Site-Specific Mitigation

The stormwater infrastructure will require minor upgrades. A Stormwater Pollution Prevention Plan (SWPPP) will be structured and implemented based on final engineering design requirements, which will incorporate factors such as soil type, slope, typical storm duration and intensity, as well as the type and material of the conveyance method. These design requirements will comply with Section 438 of the Energy Independence and Security Act (EISA). In accordance with DoD memo, "DoD Policy on Implementing Section 438 of the Energy Independence and Security Act (EISA)" dated January 10, 2010, the difference in discharge between the pre-construction and the proposed impacted condition will be the minimal target amount that will be required to be mitigated through permanent BMP design. The capacity and infiltration rates of the existing swales and detention areas will be measured and may require improvement based on testing and engineering analysis. They will be improved as necessary in accordance with engineering design factors and best management practices to meet the EISA Section 438 requirement.

Use the most energy efficient exterior lighting possible, such as light-emitting diodes (LED).

4.9. Hazardous Waste/Materials

4.9.1 Existing Conditions

Hazardous and toxic materials used at PCMS include gasoline, batteries, paint, diesel fuel, oil and lubricants, explosives, JP-8 jet fuel, pyrotechnic devices used in military training operations, radiological materials at medical facilities, radioactive materials, pesticides, and toxic or hazardous chemicals used in industrial operations such as painting, repair, and maintenance of vehicle and aircraft.

The Installation has a comprehensive program to address the management of hazardous waste, hazardous materials, and toxic substances at PCMS. This includes the proper handling, accumulation, storage, and off-site disposal of hazardous waste, as well as appropriate procurement, use, storage, and abatement (if necessary) of toxic substances. Several plans are in place to assist with the management of hazardous materials and waste including a Pollution Prevention (P2) Plan, Polychlorinated Biphenyl (PCB) Management Plan, Integrated Pest Management Plan, Hazardous Waste Management Plan (HWMP), and the Spill Prevention, Control, and Countermeasure Plan (SPCCP).

4.9.2 Environmental Consequences

Proposed Action

Impacts from construction of maintenance facilities at PCMS would be less than significant, as there would be minimal risk of human or environmental exposure to hazardous materials used or hazardous wastes generated during construction. The placement of an equipment holding yard and improvements to the field maintenance facilities operations and training at PCMS would result in an increase in the use of hazardous materials, use of petroleum-based products, and management of hazardous waste; therefore, an increased potential for spills exists. However, proposed improvements to the clamshell maintenance sites, including the addition of concrete floors will increase the likelihood that any potential spill will be fully contained and will decrease the possibility that any spilled material will permeate the into the soil. Environmental impacts, however, are anticipated to be less than significant due the comprehensive program addressing the management of hazardous waste, hazardous materials, and toxic substances. Additionally, the extensive outreach and training program on spill prevention, major site contamination and cleanup, and other special hazards resulting from increases in personnel, construction activities, and training activities would further reduce the potential for impacts.

No Action

Under the No Action Alternative, there would be no change in the current operations at PCMS.

4.9.3 Cumulative Effects

The cumulative impacts of hazardous and toxic substances consist of past, present, and reasonably foreseeable future actions that increase the handling of these substances or the generation of hazardous wastes. With the placement of an equipment holding yard and improvements to the field maintenance facilities, the addition of personnel and training would result in an increase in the use of hazardous materials and petroleum products; therefore, it is reasonable to assume an increase in the generation, handling, storage, and disposal of hazardous wastes derived from the increased use of hazardous materials, including petroleum products. Only minor cumulative impacts are predicted from the increased hazardous waste and petroleum, oils, and lubricants product generation because the Installation has the capacity to properly handle the potential increase.

4.9.4 Site-Specific Mitigation

Continue to implement all applicable hazardous waste management plans and training to address leaks or spills of hazardous materials/waste.

4.10. Sustainability

4.10.1 Existing Conditions

The Army is committed to sustaining and preserving the environment at all of its installations. In keeping with that commitment, the Installation has an active environmental management program for both Fort Carson and PCMS that employs a full array of BMPs and environmental management programs to ensure environmental compliance, stewardship, and sustainability. For more information on the Installation's Sustainability goals refer to the website located at: (<http://www.carson.army.mil/paio/sustainability.html>).

4.10.2 Environmental Consequences – Proposed Action

Implementation of the Proposed Action would have some negative impacts to sustainable development at PCMS. There is potential for the generation of solid and hazardous wastes during construction and operation of the Proposed Action. Such wastes, if generated, would be disposed of according to laws and regulations (See Section 4.9). Impervious surfaces would increase due to the clamshells improvements as described for the Proposed Action, but would be managed according to the *PCMS SWMP* (Fort Carson 2012b), which is designed to reduce the discharge of pollutants from PCMS to drainage ways, to protect water quality, and to satisfy Colorado's water quality standards (See Sections 4.5 and 4.8.2.3). There would be minor negative impacts to energy under the Proposed Action, but would be less than significant.

4.10.3 Environmental Consequences – No Action

There would be no change in sustainability under the No Action alternative.

4.10.4 Cumulative Effects

There would be a slight negative cumulative impact to sustainability, however this would be less than significant. Fort Carson and the Army are committed to sustaining the environment and will continue to implement programs and practices to ensure compliance, stewardship, and sustainability.

4.10.5 Site-Specific Mitigation

There is the potential for improved sustainability by incorporating improvements such as LED lighting and a grid/gravel system for wheeled vehicle parking.

5.0 SUMMARY OF EFFECTS AND CONCLUSIONS

5.1 Unavoidable Adverse Effects

Some adverse effects due to construction cannot be avoided if the Proposed Action is implemented. Disturbance of soils and vegetation would occur, and these effects would be cumulative and long-term. There would be no effects to wetlands or federal-listed species. Short-term noise and air quality degradation would occur during construction, but neither would be significant nor long-term. There is a minimal potential for the generation or discovery of hazardous waste or materials; such waste or materials would be disposed of or remediated according to compliance requirements.

Table 5.1 summarizes potential effects for each alternative. Environmental effects would not be significant within the larger geographic and temporal context in which they would take place. Resource areas are in the order they are discussed in this document.

Table 5.1 Summary of Potential Environmental Consequences of the Proposed Action

Resource Area	Environmental Consequence*	
	No Action Alternative	Proposed Action
Air Quality	No effect	Minor during construction
Soils	No effect	Minor on construction sites
Water Resources	No effect	Negative, but not significant
Biological Resources	No effect	No effect
Cultural Resources	No effect	No effect
Utilities	No effect	Negative, but not significant
Hazardous Waste/Material	No effect	Negative, but not significant
Sustainability	No effect	Negative, but not significant

* No effect: Actions have no known demonstrated or perceptible effects

Negative: Actions have slight negative effects and are not significant

Minor: Actions have apparent negative effects, but are mitigable to less than significant

5.2 Irreversible and Irretrievable Commitments of Resources

The Proposed Action to construct a holding yard and renovate existing facilities to improve field maintenance capabilities at PCMS would involve no irreversible or irretrievable commitment of resources other than the consumption of various expendable materials, supplies, and equipment associated with construction

5.3 Conclusions

The Proposed Action to construct a holding yard and renovate existing facilities to improve field maintenance capabilities at PCMS was analyzed by comparing potential environmental consequences against existing conditions. Findings indicate that implementation of the Proposed Action would result in either no significant adverse environmental consequences or temporary and relatively minor negative effects on those environmental areas identified. The affected environment would not be significantly or adversely effected by proceeding with the Proposed Action. No significant cumulative effects would be expected.

Based on this environmental assessment, implementation of the Proposed Action would have no significant negative environmental effects. The Proposed Action does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, preparation of an environmental impact statement is not required, and preparation of a Finding of No Significant Impact is appropriate.

6.0 ACRONYMS

AR – Army Regulation
ARPA – Archaeological Resources Protection Act
BCT – Brigade Combat Team
BMP – Best Management Practice
CEQ – Council on Environmental Quality
CFR – Code of Federal Regulation
CGP – Construction General Permit
cm – centimeter
CRM – Cultural Resources Manager
CRMP – Cultural Resources Management Program
DoD – Department of Defense
DPW – Directorate of Public Works
EA – Environmental Assessment
EIS – Environmental Impact Statement
EISA – Energy Independence and Security Act
EO – Executive Order
FNSI – Finding of No Significant Impact
GHG – Green House Gas
HWMP – Hazardous Waste Management Plan
ICRMP – Integrated Cultural Resources Management Plan
ID – Infantry Division
INRMP – Integrated Natural Resources Management Plan
ITAM – Integrated Training Area Management
kVA – kilovolt amperes
LED – Light Emitting Diode
LF – linear foot
LID – Low Impact Development
Lpd – Liters per day
m – meters
MSGP – Multi-Sector General Permit
MSR – main supply route
NAAQS – National Ambient Air Quality Standards
NEPA – National Environmental Policy Act
NHPA – National Historic Preservation Act
NOA – Notice of Availability
NOI – Notice of Intent
NRCS – Natural Resources Conservation Service
NRHP – National Register of Historic Places
P2 – Pollution Prevention
PCB – Polychlorinated Biphenyl
PCMS – Piñon Canyon Maneuver Site
PEIS – Programmatic Environmental Impact Statement
PM – Particulate Matter
Se – selenium
SF – square foot
SOP – Standard Operating Procedure
SWMP – Stormwater Management Plan
SWPPP – Stormwater Pollution Prevention Plan
TCP – Traditional Cultural Property

USACE – United States Army Corps of Engineers
USDA – United States Department of Agriculture
USFWS – United States Fish and Wildlife Service
USEPA – United States Environmental Protection Agency
USGS – United States Geological Survey

7.0 PERSONS CONTACTED

Rebecca Allen – IRP Program, DPW
Lana Altepeter – Air Program Manager, DPW
Mary Barber – Installation Sustainability Resource Officer, USAG
Dawn Beall – Forester, Directorate of Public Works, DPW
James D Benford – Director of Plans, Training, Mobilization, and Safety (DPTMS)
Richard Bunn – Wildlife Office Program Manager, DPW
Kacey Burton – Archaeologist / GIS Analyst, DPW
Scott Clark – Energy Program Manager, DPW
Bert Davis – Range Control Officer, DPTMS
Jessica Frank – Stormwater Program Manager, DPW
Eldon Granger – AST/UST Program Manager, DPW
Dan Gray – Forester, DPW
Bill Hennessy – Attorney, HQ, 4th Infantry Division (M) & Fort Carson Office of the Staff Judge Advocate
James Kulbeth – Noxious Weeds Program Manager and CWA Section 404 Coordinator, DPW
Jeffrey Linn – Natural Resources and Forestry Section, Conservation Branch Chief, DPW
David Martin – Asbestos Program Manager, DPW
Pamela Miller – Cultural Resources Program Manager, DPW
Jacob Naeyaert – RCRA Program Manager, DPW
Harold Noonan – Wastewater Program Manager, DPW
Rick Orphan – Transportation Engineer, DPW
Mark Owens – Cultural Resources Program PCMS, DPW
Roger Peyton – Wildlife Biologist, DPW
James Rice – MSE SPT, 4ID
Richard Riddle – Wildlife Biologist, PCMS, DPW
Wayne Thomas – NEPA and Cultural Management Branch Chief, DPW
Joe Wyka – Chief, Engineering Division, DPW

8.0 REFERENCES

32 Code of Federal Regulations (CFR) Part 651, Environmental Analysis of Army Actions (AR 200-2).

40 CFR Parts 1500-1508.

Andrefsky, William.

1990 *An Introduction to the Archaeology of Pinon Canyon, Southeastern Colorado*. 6 vols. Prepared for National Park Service, Rocky Mountain Regional Office, Denver, Colorado, by Larson-Tibesar Associates, Inc., Laramie, Wyoming, and Centennial Archaeology, Inc., Fort Collins, Colorado.

Fort Carson. 2002. *The Integrated Cultural Resources Management Plan, 2002-2006, 2002*. Prepared by Gene Stout and Associates, Loveland, CO. Prepared for and approved by Fort Carson, CO.

- Fort Carson. 2007. *Fort Carson and Piñon Canyon Maneuver Site Integrated Natural Resources Management Plan*, 2007-2011, July 18, 2007. Prepared by Gene Stout and Associates, Loveland, CO. Prepared for and approved by Fort Carson.
- Fort Carson. 2009. February 2009 *Final Environmental Impact Statement for Implementation of Fort Carson Grow the Army Stationing Decisions*. Prepared by Fort Carson and U.S. Army Environmental Command with assistance by Potomac-Hudson Engineering, Inc. Available on the Web at: http://www.carson.army.mil/pcms/documents/2009_EIS.pdf.
- Fort Carson. 2010. *Statement of Basis for 2010/2011 Renewal of Permit for U.S. Army – Fort Carson CO-0021181*. Accessed October 4, 2011 - http://www.epa.gov/region8/water/npdes/CO-0021181SOB_24Oct2011.pdf.
- Fort Carson. 2012a. Fort Carson Fugitive Dust Control Plan, March 2012. Prepared and approved by Fort Carson, CO.
- Fort Carson. 2012b. 2012 Piñon Canyon Maneuver Site Stormwater Management Plan. Prepared and approved by Fort Carson, CO.
- Headquarters, Department of the Army (HQDA). 2011a. February 2011 *Final Programmatic Environmental Impact Statement (PEIS) for the Realignment, Growth, and Stationing of Army Aviation Assets*. Prepared by the U.S. Army Environmental Command with assistance by Applied Sciences & Information Systems (ASIS), Inc., and Booz Allen Hamilton. Available on the Web at: http://aec.army.mil/usaec/nepa/cab-finalpeis_2010.pdf.
- HDQA. 2011b. March 2011 *Record of Decision for the Realignment, Growth, and Stationing of Army Aviation Assets*. Prepared by the U.S. Army Environmental Command. Signed by the Assistant Deputy Chief of Staff, G-3/5/7 on March 25, 2011. Available on the Web at: http://aec.army.mil/usaec/nepa/cab-rod_2011.pdf.
- Miller, Pamela
2010 Memorandum for Record: 2010 Resurvey of PCMS Cantonment Area (CF2010-010). Fort Carson Cultural Resources Management Program Document.
- U.S. Department of Agriculture, Natural Resource Conservation Service (NRCS). 2013. Web Soil Survey (WSS). USDA NRCS, Washington, D.C. Available from <http://websoilsurvey.nrcs.usda.gov/app/>.
- U.S. Army Corps of Engineers (USACE). 2008. Albuquerque District (Permit No. SPA-2008-00058-SCO).
- Title 42 United States Code (U.S.C.) Sec. 4321 et seq, The National Environmental Policy Act of 1969.
- U.S. Census Bureau 2013. Available from
<<http://quickfacts.census.gov/qfd/states/08/08071.html>>
- U.S. Department of Army. 1980. *Final Environmental Impact Statement for Acquisition of Training Land in Huerfano, Las Animas and Pueblo Counties, Colorado*. Fort Carson, CO.

U.S. Fish and Wildlife Service (USFWS). 2010. Environmental Conservation Online System Species Reports [Web page]. Endangered Species Program, U.S. Fish and Wildlife Services, Arlington, VA. Available from <http://www.fws.gov/endangered/>

U.S. Weather Service 2013. Available from <http://www.weather.com/weather/monthly/USCO0384>

9.0 APPENDICES

Appendix A. – Comments Received and Responses

Appendix B. – Colorado State Historic Preservation Office Correspondence

Appendix A
Comments Received and Responses

**SOUTHERN COLORADO ENVIRONMENTAL COUNCIL
618 EAST GODDING AVENUE
TRINIDAD, COLORADO 81082**

April 13, 2013

**RESPONSE TO THE ENVIRONMENTAL ASSESSMENT ON CONSTRUCTION OF AN EQUIPMENT
HOLDING YARD AND IMPROVED FIELD MAINTENANCE AREA AT PINON CANYON MANEUVER
SITE**

Upon review of the Environmental Assessment we have the following concerns and questions regarding the construction of an equipment holding area and improving the field maintenance area at PCMS.

1. The equipment holding area will be in a secured fenced in area on gravel. We ask that the gravel shall be the equivalent to that of the original approved by the Army Corp of Engineer's at the formation of PCMS, it has withstood the weight of training for 30 years and continues to provide a strong road-base. It can be made to any size and mix and will hold the weight of all equipment in storage. Thus keeping with the original intent of using native natural resources in the operations and sustainability of the maneuver site.
2. Furthermore, we are concerned that there is no mention of protection of the soil and ground water located under the holding yards regarding leakage of petroleum products from the equipment stored. This is a very important issue that needs to be addressed before final approval. Since the equipment is going to be parked on gravel leaked petroleum products will be able to enter the soil below and eventually the ground water. Continued contamination of the soil in this specific area would cause a cumulative impact to the soil and water. Looking at past history of procrastination of clean-up of contaminated soil from fuel spills, the SCEC feels that there has to be a definite procedure and protection in place so that proper mitigation is done at all times, without the intervention of regulatory agencies.
3. Security? In reviewing there is no mention of security personnel being stationed at PCMS for the storage yards. We ask about the legality of this? Our understanding according to Army Regulations when modern day equipment is stored that there needs to be security personnel in place around the clock to protect the equipment and electronic technology used in the equipment. The EA does not show the stationing of any military security personnel at PCMS once this project is implemented. We would like to see further clarification of security for the military equipment that will be stored in the holding yards.
4. Renovation of the Clamshells-a 20,600SF concrete slab will be constructed at each clamshell. There is no explanation of the design of this slab as to drainage point for spilled fuels or fluids from the equipment. Consideration of a central drainage collection point be developed in the design so that these hazard fluids can be collected in one

specific catch container and there would be possibility of runoff of these hazard fluids. It would be easy to access and drain on a regular basis and shipped off in marked containers to the proper hazard waste facility.

5. Once again, the EA shows no socioeconomic impact to our local county. We ask that Las Animas County contractors be considered for this project and all materials purchased locally.

Thank you for your consideration of our input and concerns regarding this Environmental Assessment.

On behalf of the membership of the Southern Colorado Environmental Council

Paula Ozzello

Email address pozzello@gmail.com

Phone 719-859-4048

April 15, 2013

Fort Carson NEPA Program Coordinator
Directorate of Public Works
Environmental Division (IMWF-CAR-PWE)
1626 O'Connell Boulevard, Building 813
Fort Carson, Colorado 80913-4000

**VIA FED EX &
ELECTRONIC MAIL**

Re: Comments on the Environmental Assessment and Draft Finding of
No Significant Impact for Construction of an Equipment Holding Yard and
Improved Field Maintenance Area, Piñon Canyon Maneuver Site, Colorado.

To Whom It May Concern:

These comments are submitted on behalf of Not 1 More Acre! ("N1MA!"), P.O. Box 773, Trinidad, Colorado 81082 and Jean Aguerre, to the Department of the Army, Fort Carson, Colorado, in response to the February 2013 publication of the Environmental Assessment and Draft Finding of No Significant Impact for Construction of an Equipment Holding Yard and Improved Field Maintenance Area ("PCMS Construction EA"), Piñon Canyon Maneuver Site, Colorado.

Our comments are submitted under protest based on the Army's continued failure to fulfill requisite procedures for the publication of the Notice of Availability ("NOA"). The Army failed to publish the NOA for the PCMS Construction EA in the Federal Register. Because the contemplated scope and scale of military use in the PCMS Construction EA exceeds all that has gone before and is linked to current and foreseeable major federal actions at the facility, the Proposed Action is therefore "unprecedented" as that term is used in 32 C.F.R. § 651.25. The use and development of the 236,000-acre PCMS – located at what Fritz L. Knopf, an expert on the historical ecology of the Great Plains, describes as the "headwinds" of the devastating Dust Bowl of the 1930s is self-evidently "of national concern" within the meaning of 32 C.F.R. § 651.25.

Part A: Introduction

Not 1 More Acre! is a non-profit organization formed to promote the ecological, cultural and economic health of southern Colorado and northern New Mexico. Jean Aguerre is a native of La Junta, Colorado, who grew up on a ranch near the Timpas Unit of the Comanche National Grassland. Since 2006, Not 1 More Acre! and Ms. Aguerre have actively participated in all NEPA processes related to activities at the Department of Defense's Piñon Canyon Maneuver Site (PCMS), Colorado.

The Piñon Canyon Maneuver Site ("PCMS") is a separate military installation of DOD consisting of approximately 236,000 acres of land located roughly 150 miles southeast of Colorado Springs. In the early 1980s, the Department of the Army engaged in a long and bitter acquisition of dozens of ranches on the last intact shortgrass prairie that would become DOD's Piñon Canyon Maneuver Site. In 2006, a map of DOD's massive 6.9 million-acre land expansion of the Piñon Canyon Maneuver Site, which had

been secretly planned for years, was leaked to ranchers.¹ That disclosure caused a political uproar and, among other results, caused Congress in 2007 to pass a comprehensive funding ban prohibiting the Department of Defense from spending money on any aspect of expansion at PCMS.

The ban has been renewed annually since the original prohibition in 2007.² Yet the Army has repeatedly and blatantly disregarded the funding ban, as well as ignoring the Order of the Federal District Court vacating the PCMS Transformation Record of Decision³ and concurrently flouting the public disclosure requirements of NEPA by continuing to intensify and expand military activity at PCMS.

It bears emphasizing that the PCMS is not an extension of Fort Carson, as evidenced by the Federal Court Order in *Not 1 More Acre! v. U.S. Dept. of the Army*, 08-cv-00828-RPM (USDC Colorado, 2009), and by the congressional funding ban prohibiting spending on any aspect of expansion at DOD's Piñon Canyon Maneuver Site. Fort Carson is simply the installation manager, scheduler and one of the users of the PCMS, which is itself an independent installation of the DOD. PCMS is also used by other elements of the military for a range of training purposes, which the PCMS Construction EA should have acknowledged and summarized in the introduction. *Exhibit A*.

Part B: General Comments on the PCMS Construction EA

The PCMS Construction Environmental Assessment document was prepared pursuant to the requirements of the National Environmental Policy Act (NEPA), the NEPA Regulations of the Council on Environmental Quality (CEQ), 40 CFR 1500-1508, and the Department of the Army's Environmental Procedures at 32 CFR Part 651. The Proposed Action described in this PCMS Construction EA is the construction of a large equipment holding yard and "renovation" of other "existing" facilities at the Piñon Canyon Maneuver Site (PCMS) in southeastern Colorado.

¹ The map was later found in "Piñon Vision Operations Order 05-09," dated December 22, 2004. Piñon Vision documents describe a plan for implementing "the long-term expansion of [PCMS] in order to obtain adequate training areas and ranges to support current and future Army and Joint force mobilization, mission rehearsal and training requirements." AR 276 at 0019157. The map is also part of the revised version of the Piñon Vision 05-09, published in January 2006, entitled "Piñon Vision OPLAN 05-18." A.R. 275. Both versions of Piñon Vision were obtained by commenters when the Federal District Court ruled the documents be included in the Supplemental Administrative Record during litigation that vacated the PCMS Transformation EIS.

² Congress has renewed the funding ban each year since 2007. See, Pub. L. 110-329 § 127 (Sept. 30, 2008); 122 Stat.3701; 123 Stat. 3296, Pub. L. 111-117 at § 127 (Dec. 16, 2009); H. R. 2055 at § 128; Cong. Rec. at H3964, H3972 (June 2, 2011); Pub.L 112-74 - §128 (December 2011).

³ *Not 1 More Acre! v. U.S. Dept. of the Army*, 08-cv-00828-RPM (USDC Colorado, 2009). *Exhibit F*.

The PCMS Construction EA fails to provide decision makers and the public with an objective, disinterested analysis of that proposed action and of the alternatives that it presents.

According to the Army's own Environmental Procedures, the purpose of an Environmental Assessment (EA) is "[t]o facilitate agency planning and informed decision-making, helping proponents and other decision makers understand the potential extent of environmental impacts of a proposed action and its alternatives, and whether those impacts (or cumulative impacts) are significant." (32 CFR § 651.32).

The PCMS Construction EA fails to achieve this purpose and therefore fails to comply with the requirements of NEPA. For all the reasons stated below and in all our previous comments and litigation, hereby incorporated by reference, commenters assert that the PCMS Construction EA fails to provide decision makers and the public with an objective, disinterested analysis of the proposed action and its alternatives.

1. Inadequate Scope and Context

The PCMS Construction EA purports to present an analysis of the environmental impacts of proposed construction projects within the existing cantonment area of the PCMS and to support field maintenance "accommodations" for "equipment" at PCMS.

In fact, the Pentagon made a decision to proceed with much of the construction "proposed" in the PCMS Construction EA after the federal court in 2009 vacated the basis for that construction as originally proposed in the 2007 PCMS Transformation EIS. The PCMS Construction EA Proposed Action is linked to, and is part of, other proposed actions, most fundamentally the 2007 Final PCMS Transformation EIS.

The action contemplated in the PCMS Construction EA is linked to the 2007 Programmatic EIS for Army Growth and Force Structure Realignment; the 2009 Fort Carson Grow the Army EIS; the 2011 Programmatic EIS Combat Aviation Brigade Stationing Implementation at Fort Carson with Training at PCMS; the 2011 PCMS Transformation EA; the Fort Carson Combat Aviation Brigade Stationing implementation Final EA; and the January 2013 Programmatic EA for Army 2020 Force Structure Realignment.

The Construction EA is also linked to transformation training maneuvers conducted by Fort Carson and multi-force units scheduled by Fort Carson at PCMS in violation of NEPA. Not 1 More Acre! has provided extensive critical comments on these documents and has successfully litigated the 2007 PCMS Transformation Record of Decision, and those comments – including exhibits and references – and that litigation are hereby incorporated by reference.

A brief review of the scope and context of transformation construction projects at Piñon Canyon is warranted to make clear the extent to which these multiple activities are related.

The proposed action in the vacated 2007 PCMS Transformation EIS included a series of construction projects related "to implementation of transformation activities at

PCMS.” At that time, there were very few developed facilities within the training areas at the maneuver site, and the Army described the existing facilities at the 1660-acre cantonment area as “austere.”

The construction projects proposed in the 2007 PCMS Transformation EIS document included storage facilities, support facilities, vehicle maintenance facilities, motor pools, upgraded roads and utilities as well as protective equipment training facilities in the training areas. These transformation construction projects were to support increased training intensity and use of PCMS.

In 2009, recognizing that impacts from past training have caused “severe environmental damage,” the Federal District Court threw out the Army’s Record of Decision (ROD) for the proposed transformation training and construction at PCMS.

On January 12, 2010, just four months after the Federal Court’s Order invalidating the Army’s transformation actions, the Fort Carson Director of the Directorate of Plans, Training, Mobilization and Security submitted a Memorandum to the Garrison Commander seeking “[t]o obtain the Garrison Commander’s approval to remove construction projects from the proposed action with regard to implementation of transformation activities at PCMS.” *Exhibit B*. Using internal, publicly undisclosed documents, the Army simply removed construction projects⁴ from the vacated Transformation EIS and proceeded to build projects that had been invalidated by the Court.

In 2007, a year after the massive military expansion map had been leaked to ranchers and Not 1 More Acre! uncovered secret land expansion planning documents⁵, the House of Representatives overwhelmingly (383 – 34) approved appropriations legislation which prohibited funding for any activity related to any aspect of expansion at PCMS. The funding ban provides that: “None of the funds made available by this Act may be used for any action that relates to or promotes the expansion of the boundaries or size of the Piñon Canyon Maneuver Site, Colorado.”⁶ The Military Construction Appropriations Committee has renewed the comprehensive funding prohibition each year since 2007.

⁴ AP reported that over \$400 million in military construction deals in Colorado were appropriated in 2012. [Colo. gets \\$400M in military construction deals - The Denver Post](http://www.denverpost.com/news/ci_22287609/colo-gets-400m-military-construction-contracts#ixzz2NvKOAuyI)
http://www.denverpost.com/news/ci_22287609/colo-gets-400m-military-construction-contracts#ixzz2NvKOAuyI

⁵ Training land acquisitions, like all Army real estate transactions are governed by Army Regulation 405-10, Acquisition of Real Property and Interests Therein, and other applicable regulations and laws. Army training land acquisitions, of which estimates exceed one million dollars in price or one thousand acres in size, are *subject to an approval process prior to any official notice to the public*, including congressional authorization for acquisition of real property, which was passed in 2006 by then Colorado U.S. Senators Wayne Allard and Ken Salazar.

⁶ Congress has renewed the funding ban each year since 2007. See, Pub. L. 110-329 § 127 (Sept. 30, 2008); 122 Stat.3701; 123 Stat. 3296, Pub. L. 111-117 at § 127 (Dec. 16, 2009); H. R. 2055 at § 128; Cong. Rec. at H3964, H3972 (June 2, 2011); Pub.L 112-74 - §128 (December 2011).

Instead of respecting the funding ban voted by Congress, the record shows that the Army disregarded NEPA, the funding ban, and the District Court Order by moving forward with many of those transformation construction projects (*Exhibit C*) while telling the public and Congress that no such construction has occurred. For example in the February, 2011 Programmatic EIS for the Growth, Realignment, and Stationing of Army Aviation Assets (“CAB PEIS”) the Army states:

The 2007 Transformation EIS had analyzed several specific construction projects for PCMS. These construction projects have not been built.⁷ *Exhibit G*.

On April 6, 2011, Assistant Secretary of the Army Katherine G. Hammack appeared before the Congressional Subcommittee on Military Construction. Cong. Rec. D 368 (Apr 6, 2011). The Assistant Secretary was asked the following question:

Some of the most ecologically sensitive native grasslands exist in Colorado at Piñon Canyon. Army has been trying to acquire land there to turn it into a heavy duty training ground – first looking to buy 418,000 acres, and now about 128,000 acres. Currently, Congress has statutorily banned the Army from using funds that would go toward any activity that would expand the Piñon Canyon Maneuver Site. In addition, a federal court has rejected the EIS the Army submitted under which it claimed authority to expand the PCMS boundaries. There is still great concern that DOD money continues to be funneled to land trust organizations to purchase development rights surrounding PCMS.

Can you aver that this funding ban has not been violated, meaning no money has been spent on expansion construction or for the purpose of acquiring interest in property that may be connected to expansion?

Assistant Secretary Hammack’s response, submitted in writing subsequent to the hearing, is as follows:

The Army has not spent money nor budgeted for expansion construction or for the purpose of acquiring interest in property that may be connected to expansion.⁸

A year later, in March of 2012, Assistant Secretary Hammack was asked again about construction at PCMS:

Question: Last year at this hearing you assured me that “The Army has not spent money nor budgeted for expansion construction or for the

⁷ February 2011 Final Programmatic Environmental Impact Statement (PEIS) For the Realignment, Growth, and Stationing of Army Aviation Assets; Prepared By: U.S. Army Environmental Command p.56. (“February 2011 Combat Aviation Brigade PEIS.”)

⁸ House Appropriations Committee Military Construction and Veterans’ Affairs Subcommittee, Hearing Date: 06 April 2011; Subject of Hearing: Fiscal Year 2012 Army MILCON; Witnesses: Honorable Katherine Hammack and MG Boozer.

purpose of acquiring interest in property that may be connected to expansion” at Pinon Canyon Maneuver Site.

However, I have been informed that in February, 2011 the Army constructed a 2500 foot long water line to install fire hydrants at a site that was designated for two clamshell maintenance shelters, as well as an underground electric line built 290 feet below the ground, and two concrete pads at the site in order to accommodate these shelters. I am told the clamshells have been constructed or are in the process of being constructed. Is this information true?

Answer: The Army has not spent any money nor budgeted for land expansion of PCMS. Our FY13-17 Future Years Defense Program (FYDP) reflects this. We have neither spent nor programmed any MILCON funds to purchase land, or build facilities on of PCMS land expansion.

As a part of regular, on-going operations to support home station training for units assigned to Ft Carson within the current boundaries of PCMS, the Army has performed and will continue to perform minor construction projects at PCMS. Such projects may be built separate from the Transformation programs studied in the 2007 EIS. These projects, including the 6,000 square foot metal building, are not part of the 2007 EIS and therefore not subject to the court decision.

The projects referenced in your question are authorized by 10 USC 2805(c) under allowable uses of Operations and Maintenance (O&M) funding for minor construction projects costing not more than \$750,000.⁹

Appendix B of the 2007 PCMS Transformation EIS identified two 6,000 square foot “Steel Building” as a construction project associated with Transformation. On or about March 31, 2011, Fort Carson authorized construction of a 6,000 square foot steel building at the PCMS “to facilitate the immersion training of the Activated Reserve Component.” *Exhibit F-1*. Contrary to Assistant Secretary Hammack’s statements to Congress, Transformation construction projects, including projects listed on the 2013 PCMS Construction EA, were improperly separated from the vacated ROD and have been or are planned to be constructed.

The Army authorized construction of the protective equipment training facility described in the vacated PCMS Transformation EIS on March 9, 2009. On December 1, 2009, Fort Carson approved dismounted military training exercises involving Blackhawk helicopters at the PCMS. The internal, publicly undisclosed Record of Environmental Consideration (REC)¹⁰ for this project relies upon the 1980 Acquisition EIS and the 2009

⁹ CHARRTS No: HADMQ-03-016 Committee: HAC, MILCON SUBCOMMITTEE: Hearing Date: March 07, 2012 Hearing; Witness: Honorable Katherine Hammack; Question 16.

¹⁰ **32 C.F.R § 651.19 Record of Environmental Consideration (REC)**

“A Record of Environmental Consideration (REC) is a signed statement submitted with project documentation that briefly documents that an Army action has received environmental review. RECs are prepared for CXs that require them, and for actions

N1MA! comments on PCMS Construction EA, page 6

Fort Carson GTA EIS, which are invalid because the first document is irrelevant thirty-three years after it was issued and the GTA EIS is invalid because its environmental analysis was expressly based on the analysis struck down by the Court in federal litigation. Clamshell structures, one for maintenance of ground vehicles including heavy combat tanks, and the other for maintenance of aviation assets have been constructed without any valid environmental analysis or honest disclosure about the scope and context of these actions causing unprecedented cumulative irreparable damage to the nation's last intact major expanse of shortgrass prairie.

Appendix B of the PCMS Transformation EIS identified a 10,000 square foot vehicle wash rack as a construction project associated with Transformation. The notes in the vacated EIS indicate water would be treated by an oil/water separator. On February 2011, Fort Carson authorized construction of a \$750,000 vehicle wash facility at the PCMS, including 10" thick reinforced concrete, a 2100 square foot staging area, a 10,900 square foot bath area, and a six-bay wash area with eight water cannon, 29 frost-free hose hydrants, and an oil/water separator that would drain into an existing lagoon.¹¹

Yet, the action proposed in this latest EA is described in almost complete isolation, with no meaningful discussion of how it facilitates or otherwise relates to these numerous other related actions, and with no meaningful discussion of the how this action could increase the cumulative environmental effects of these related actions. Previous documents have proposed expansion of the PCMS to allow expanded and more intense use of this DOD facility for transformation combat training including battalion and brigade level field maneuvers involving integrated weapons systems, a new \$3.5 billion dollar Heavy Combat Aviation Brigade, armored vehicles, tracked tanks, artillery, drones, Ospreys, Chinook, Blackhawk and Apache Longbow III attack helicopters with dismounted training for thousands upon thousands of multiple, special operations and joint force units. In reality, the construction and "renovation" activities described in the PCMS Construction EA make no sense unless they are understood as linked to and part of these larger, proposed actions. There is, in fact, no purpose in these initial foundational activities except to prepare the way for much larger ones to follow. This piecemeal approach to proceeding with construction struck down by the court in *Not 1 More Acre! v. U.S. Dept. of the Army* is a violation of the spirit of 10 USC 2805(c) which was not created to allow the military to break large scale projects costing over \$750,000.00 into smaller bits in order to avoid funding bans and environmental responsibilities. *Supra*.

No mention is made in the PCMS Construction EA of the possible consequences of the current budget sequestration for the proposed actions. Neither funding prohibitions nor the current stringent financial realities are reflected in this alleged planning document.

covered by existing or previous NEPA documentation.
<http://law.justia.com/cfr/title32/32-4.1.1.3.14.3.89.2.html>

¹¹ Pursuant to the Freedom of Information Act, N1MA! obtained copies of all REC's related to PCMS that were issued between 2009 and 2011 and discovered that these and other construction projects listed on the vacated Transformation EIS were authorized with no environmental analysis or public disclosure as required by NEPA. A list of these REC's is attached to this comment letter as *Exhibit C* and all REC's are incorporated by reference herein.

In summary, it is clear that the Army continues to violate the law by: (1) illegally segmenting the construction pieces of the Transformation project in an attempt to circumvent public disclosure and environmental study requirements; (2) proceeding with construction projects identified in the PCMS Transformation EIS without first notifying N1MA! as required by the Scheduling Order in the federal litigation; (3) proceeding with construction projects identified in the PCMS Transformation EIS after the PCMS Transformation ROD was vacated by the federal court based upon only RECs without notification to the public; (4) proceeding with construction projects that qualify as “major federal actions significantly affecting the quality of the human environment” without first conducting the requisite environmental review under NEPA; (5) proceeding with construction projects in direct defiance of a Congressional funding ban that prohibits the Army from using military construction projects in support of any expansion of use at the PCMS; (6) providing false information related to construction projects at the PCMS to Congress and the public.

As the Army’s procedures (32 CFR §651.16) clearly state, “NEPA analyses must assess cumulative effects, which are the impact on the environment resulting from the incremental impact of the action when added to other past, present, and *reasonably foreseeable future actions*.” [Emphasis added.] Instead, the PCMS Construction EA mentions potential cumulative impacts only in the context of the construction itself, and in that isolated, limited context either denies that any cumulative impacts (e.g., on air quality, soils water, wildlife, plants and cultural resources) would occur or else states baldly that any such effects “would not be significant” without providing any actual data or analysis to support such conclusions. This is certainly not the “hard look” that is supposed to be the standard for environmental analysis and public disclosure under NEPA.

2. Illegal Segmentation

Commenters have previously informed the Army that it is illegally segmenting major federal actions at Piñon Canyon Maneuver Site and region. More specifically, Not 1 More Acre! submitted a scoping comment letter to the Army on May 20, 2008 regarding the Grow the Army EIS, raising illegal segmentation issues and failure by the Army to analyze and disclose cumulative impacts of its actions. On October 8, 2007, Not 1 More Acre! also submitted a comment letter on a Draft EIS for Army Growth and Force Structure Realignment raising the illegal segmentation issues and the Army’s failure to consider cumulative impacts. All issues raised in our October 2007 and May 2008 comment letters are incorporated here in by reference.

The Department of Defense also separately requested NEPA-related comments on a new Heavy Combat Aviation Brigade, a Transformation Joint Forces electronically integrated weapon system, and the proposed Low Altitude Tactical Navigation (“LATN”) to expand low altitude navigation across northern New Mexico and southern Colorado to conjoin that already approved at the Piñon Canyon Maneuver Site. Joint Force, Special Operations transformation training is proposed across 94,000 square miles of the southern Great Plains to conduct low altitude training using C-130 and CV-22 Ospreys and drones from 50’ AGL (above ground level) to deep space all the while continuing to conduct

illegal training on the nation's last intact shortgrass prairie and in the National Air Space ("NAS") over PCMS and the entire region.

As noted above, the Army is undertaking construction activities at PCMS (landing strips, clamshells, steel buildings, waterworks, check dams, living quarters and other facilities listed in the invalid 2007 Transformation EIS) without having analyzed or publicly disclosed the cumulative impacts of these activities. That the Army is illegally segmenting each construction project with internal, undisclosed documents to avoid a cumulative impact analysis is a gross violation of NEPA, the federal court order invalidating the legal basis for these construction projects and the six-year old congressional Military Construction prohibition that bans funding for any aspect of expansion at PCMS. Moreover, the Pentagon is proceeding to build unprecedented infrastructure at PCMS to advance decisions already made in violation of a basic tenet of NEPA.

The public participation process employed in preparation of the PCMS Construction EA was inadequate; little effort seems to have been made to consult in advance with other federal agencies, Indian tribes, or state or local officials. The CEQ's NEPA Regulations direct federal agencies to "Integrate the requirements of NEPA with other planning and environmental review procedures required by law or by agency practice so that all such procedures run concurrently rather than consecutively." (40 CFR §1500.2 (c))

The only consultations that commenters know of are NHPA Sec. 106 consultations that arrive by U.S. Mail. NHPA Section 106 documents sent to consulting parties are not dated. Fort Carson personnel reason that no date is needed on the documents because the 30-day consultation period begins when the consulting party receives the documents, not from the date the documents are issued. But since there is no money for return receipts, the Army has no way to verify if and when consulting parties receive the documents. Consultations appear to be more of a rote homage to unwelcome "housekeeping" requirements than a serious effort to integrate public and other review procedures in preparation of the environmental analysis.

3. Pervasive Absence of Objective or Quantitative Information

Throughout the discussion in the PCMS Construction EA of potential environmental impacts there is a glaring absence of any sort of analytical evidence or analysis that might support (or refute) the assertions made about the scope or intensity of such impacts. The CEQ's NEPA Regulations are very direct on this issue:

NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. 40 CFR 1500.1 (b).

The PCMS Construction EA provides no such analysis, despite the fact that numerous studies have been made of various environmental conditions and impacts on

and near the PCMS facility, including After Action Reports prepared following training exercises conducted within the PCMS. The few external references cited are general baseline descriptive reports: no objective analyses are presented that could indicate whether the internal resource management plans and “best management practices” invoked (but not explained) in the document have met their intended objectives.

Therefore it is inappropriate and disingenuous to claim that these measures will successfully prevent or mitigate any significant environmental impacts. The PCMS Construction Environmental Assessment offers no analytical evidence – leaving the public with only the Army’s optimistic and frequently absurd assertions to rely on. Here is the Army’s “analysis” of impacts to Air Space Use at PCMS, located 150 miles south of Fort Carson:

Air Space Use

PCMS is an existing training area. Neither the Proposed Action nor its alternatives would change existing airspace use on Fort Carson. *2013 Draft EA PCMS Holding Area Review, 4.1 P.9.*

Since the Piñon Canyon Maneuver Site has been in use for some years, there must be extensive records of the impacts of use on the ecology and cultural resources of the cantonment and adjacent areas. The Construction EA should contain both more factual and more photographic information about the potentially affected areas than were provided. It is especially important to provide baseline data and trends from past and ongoing monitoring of impacts on soil, water, and wildlife. Otherwise, how can future effects be evaluated?

4. Deficiencies in Monitoring and Mitigation

The term “mitigation” is not a magic wand to be waved whenever a potentially significant environmental impact is identified. To the contrary, mitigation in the context of NEPA is specifically defined in the CEQ’s NEPA Regulations at 40 CFR § 1508.20. The definition includes five specific measures, in the prescribed sequence of avoiding, minimizing, rectifying, reducing, and compensating for adverse impacts. This sequence is repeated in the Army’s Environmental Procedures at 32 CFR §651.15. This section continues as follows:

- “(b) When the analysis proceeds to an EA or EIS, mitigation measures will be clearly assessed and those selected for implementation will be identified in the FNSI or ROD
- (h) A monitoring and enforcement program for any mitigation will be adopted and summarized in the NEPA documentation.

The draft FNSI for the PCMS Construction EA proposed action contains no reference to any integration of monitoring or mitigation programs. The EA presents no integrated program for either mitigation or monitoring. Some references to mitigation are included piecemeal in Section 4 on a resource-by-resource basis, but

these references to mitigation measures are, again, unsupported short statements, such as in reference to Air Quality:

“Best management practices to mitigate fugitive dust should be followed to minimize impacts.” *2013 Draft EA PCMS Holding Area Review* 4.3.5. P.12, 13.

Or, for **Water Resources**:

“Use Low Impact Development (LID) BMPs.” *2013 Draft EA PCMS Holding Area Review*, 4.2.5.1, p.15

Or, for **Cultural Resources**:

“Unless identified through the Section 106 process discussed in 4.7.2, no site-specific mitigation is required for the Proposed Action.” *2013 Draft EA PCMS Holding Area Review*, 4.7.5.

Despite the above-cited requirement in the Army’s own regulations, the EA presents no monitoring and enforcement plan which could determine if any of these alleged mitigation measure would be effective, yet it asserts that the proposed action would generate no significant adverse impacts. To make this assertion, in the FNSI and in the EA, Section 5 (Summary of Effects and Conclusions) is both legally insufficient and scientifically indefensible.

Fritz L. Knopf, the aforementioned expert on the historical ecology of the Great Plains, warns that today we know much more about the ecological and cultural heritage of the shortgrass prairie in the United States than was known in 1980, when ranches were condemned to establish the Piñon Canyon Maneuver Site. He notes that current state-of-the-science opinion is that damage to shortgrass prairie (like those imminent in the PCMS employments) is currently considered to be ecologically irreversible, and comparable to massive “plow-outs” that ultimately led to the Dust Bowl in the 1930s.

Simply put, current scientific studies have concluded that the loss of shortgrass prairie grass simply cannot be mitigated in any meaningful way. Likewise, any substitute grassland mitigation has been demonstrated to be little more than an ecologically temporary palliative – more a matter of political cosmetics than serious environmental mitigation. Part of the Santa Fe Trail runs through this site, and 130 years after the last ox-drawn wagon rumbled to the west, those 19th century wagon ruts are still visible scars on the fragile prairie landscape. How much longer will the far larger scars inflicted by high-speed 67-ton tanks and 30-ton infantry fighting vehicles mock efforts to heal this land?

Part C: Natural and Cultural Resources of the Purgatoire River Valley

Grasslands are well documented as the most imperiled ecosystems in the world; in the last 125 to 150 years, most of America's native grasslands have been destroyed.

The climate of the Purgatoire River region is semi-arid, with generally low relative humidity, abundant sunshine, little rainfall and a wide daily temperature range. The region receives roughly 15 inches of rain per year and about half of the yearly precipitation is received during the months of May through August, largely from thunderstorm activity. These storms result in considerable soil erosion if the native grasses are disturbed or missing. Summer average maximum temperatures in July and August are near or above 90 °F. Winters are cold and very dry. This climate makes bare soil extremely vulnerable to the effects of drought and wind erosion, twin conditions that set the stage for the American "Dust Bowl" of the 1930s, when topsoil exposed following large-scale agricultural plowing resulted in severe dust storms that caused catastrophic ecological damage throughout the region. Climatic conditions today are similar to those experienced during the Dust Bowl.

The human cultural history of southeastern Colorado dates to more than 10,000 years ago. From that point until the 1600s, the area remained the domain of various groups of Native Americans, including northern Pueblo and Plains Apache groups at the time of European arrival/influence. Historical documentation indicates the arrival and presence of French, Basque, Spanish, English and American exploration from the 1600s through the 1800s.

The PCMS and surrounding lands contain some of the richest concentrations of prehistoric, archaeological and historic sites in the American West. Thousands of sites document the lives of dinosaurs, Native Americans, trappers, traders, early Hispanic settlers, cowboys, cattle and sheep ranchers, farmers and homesteaders.

In February 2007, Colorado Preservation, Inc. added the Santa Fe Trail and Southeast Heritage Region to Colorado's Most Endangered Places List, due to the threat of intensified and expanded military operations. On June 14, 2007, one day before the US House of Representatives overwhelmingly (383-34) passed a comprehensive prohibition on spending for any aspect of expansion at PCMS, the National Trust for Historic Preservation added the PCMS region to its list of the nation's most endangered places.

Originally included within the boundaries of the PCMS, Picket Wire Canyonlands was transferred in 1990 by Congress to the Forest Service to be specially managed as part of the adjacent Comanche National Grasslands. Picket Wire is the only portion of the entire National Forest System with a specific mandate for the management and protection of fossil resources. The site contains petroglyphs and more than 1,300 individual dinosaur tracks in addition to bones and skeletons representing as many as 100 different animals that lived 150 million years ago. Exploratory ground penetrating radar work has confirmed that the exposed tracks constitute only a small part of a much larger track site buried in the surrounding area, making this the largest assemblage of dinosaur track trails in North America. This is also the only archeological site providing evidence that at least some dinosaurs moved in social units.

Failure to quantify baseline conditions at PCMS

The 238,000-acre Piñon Canyon Maneuver Site lies in the Arkansas Tablelands section of the Great Plains-Palouse Dry Steppe physiographic province. Elevation ranges from 4,400 feet to 5,800 feet. The site consists primarily of tablelands cut by tributary drainages of the Purgatoire River. A total of ten intermittently flowing arroyos and canyons cross Piñon Canyon Maneuver Site, predominantly from northwest to southeast, all flowing down to the river. Playas, seeps and springs in these canyons and adjacent to the river flow year-round, creating unique plant communities, including small wetlands, shrub communities, and aspen groves rare in southeastern Colorado.

The Army admitted in the vacated PCMS Transformation EIS/ROD that there is a lack of baseline data for PCMS. Not 1 More Acre! is aware that from 1985 through 2002, the Army prepared After Action Reports summarizing training exercises conducted at the PCMS. The reports confirm that even those limited training exercises have had severe and long-lasting environmental consequences. These AARs demonstrate the failure of the PCMS Construction EA to give consideration to foreseeable adverse environmental impacts of increase and intensity in training exercises and the inadequacy of the plans for mitigation.

Soils

Training at PCMS results in irreversible disturbance of soils. In violation of NEPA, Army continues to fail to analyze and disclose loss of topsoil, erosion, sedimentation, drought and climate conditions and other soil issues with regards to PCMS. Soils of the shortgrass prairie are highly erodible. Historically, southeastern Colorado lies in what might be termed the ‘headwinds’ of the Dust Bowl of the 1930s. The epicenter of Dust Bowl impact is generally considered to be the Boise City, Oklahoma area, just ESE (downwind) of PCMS.

Current activities at the PCMS that include cutting of the soil surface to the point of destroying the crowns and roots of the shortgrasses are at least as destructive as the historic plowing of a site. Studies by Shaw and Diersing (Shaw, R.B. and V.E. Diersing. “Tracked vehicle impacts on vegetation at the Pinion Canyon Maneuver Site, Colorado.” J. Environ. Qual. 19:234-243, 1990) concluded that tracking by military vehicles decreased plant basal and litter cover, and increased the proportion of bare ground on the PCMS, most specifically reducing cover by the perennials blue grama and buffalo grass while increasing cover by ecologically and economically undesirable annual grasses and both native and exotic invasive herbaceous plants.¹²

The Army ignored studies conducted on the PCMS by Milchunas and others (Milchunas, D.G., et al. “Plant community responses to disturbance by mechanized military maneuvers.” J. Environ. Qual. 28:1533-1547, 1999; and, “Plant community structure in relation to long-term disturbance by mechanized military maneuvers in a semiarid region.” Environ. Manage. 25:525-539, 2000) that also concluded that the

¹² Previously submitted to the agency as Exhibit 2 to N1MA!’s 2020 PEA comment letter submitted March 19th, 2013.

distinctive/documentable impacts of tracking by military vehicles represent a soil disturbance that leads to an ecological shift from a deep-rooted, wind-resistant, soil-protecting vegetative cover to a shallow-rooted flora prone to severe wind erosion in periods of drought.¹³

The PCMS studies further identified the issue of invasive, undesirable species subsequently dominating areas impacted during training exercises as a critical ecological issue. The US Forest Service (Reeves, M.C. and J.E. Mitchell. 2012. A synoptic review of U.S. rangelands: a technical document supporting the Forest Service 2010 RPA Assessment. USDA Forest Service Gen. Tech. Rep. RMRS-GTR-288. Fort Collins, CO) recently concluded that invasive plant species pose the greatest threat to the future health of U.S. rangelands and will cause a serious financial burden to society. The synthesis concluded that invasive species threaten many ecosystems as they interrupt ecological processes like nutrient cycling and pollination, as well as increase soil erosion, degrade wildlife habitat, reduce the carrying capacity of livestock, interfere with predator and prey relationships, and reduce overall ecosystem biodiversity.

Much of the biological diversity of the shortgrass prairie lies below ground. These plants have extensive root systems that hold the highly erodible soils during severe climatic (water and wind) events. The Army simply and falsely assumes that surface damage to ecologically stable native grasses can be mitigated/recovered and flagrantly ignores the collective research programs at the Agricultural Research Service's Long-Term Ecological Research site in Eastern Colorado (Lauenroth, W.K. and I.C. Burke. 2008. Ecology of the shortgrass steppe. Oxford Univ. Press.) that conclude that restoration of shortgrass prairie from severe damage is so slow that it has not yet been definitively documented anywhere in eastern Colorado – 75 years after the Dust Bowl. Despite the Army's casual statements that severely damaged sites will be re-vegetated, current science does not support mitigation or control of erosion and exotic plant invasions as being possible in any ecologically or economically sustainable manner. Restated, the state of the science at this point in time is that historical and future damage to shortgrass prairie must be considered ecologically irreversible and irreparable. Any restorative efforts must match the native grassland previously existing on the PCMS to preclude the ultimate fate of severe wind erosion in the future (Knopf, F.L. and F.B. Samson, eds. Ecology and conservation of Great Plains vertebrates." Ecological Studies 125:1-320; and Samson, F. B., et al. "Prairie Ecosystems: Past, Present, and Future." Wildlife Soc. Bull. 32:6-15, 2004.)¹⁴

Water quality and quantity

The Nationwide Rivers Inventory has identified 117 miles of the Purgatoire River, part of which runs through the PCMS, as having outstanding scenic, geological, fish, wildlife and cultural values and as eligible for special protection. The PCMS Construction EA must catalog these special features of the Purgatoire River and develop

¹³ Previously submitted to the agency as Exhibits 5 and 6 to N1MA!'s 2020 PEA comment letter submitted March 19th, 2013.

¹⁴ Previously submitted to the agency as Exhibits 3 and 4 to N1MA!'s 2020 PEA comment letter submitted March 19th, 2013.

mitigation measures to prevent any adverse impacts that would prevent designation as a wild and scenic river.

The Purgatoire River and its side canyons are a unique aquatic resource within Colorado. No other Front Range or eastern plains major basin has been subject to so little introduction of exotic fishes. The only known eastern Colorado populations of invertebrates such as Megaloptera (hellgrammites) and the Trichopterans (caddisflies) Ithytrichia and Myatrichia occur throughout the region as well as within and adjacent to PCMS.

Pursuant to section 303(d) of the Clean Water Act, the State of Colorado has placed the section of the Purgatoire River from I-25 to its confluence with the Arkansas River on the State's list of impaired waters for selenium and sediment. One of the designated uses for this section of the Purgatoire River is for Aquatic Life, Warm Water – Class 2. The 2010 Impairment Reporting found the river impaired for this use. This section of the river runs directly through and drains the PCMS. *U.S. E.P.A. Watershed Assessment, Tracking and Environmental Results, 2010 Waterbody Report for Pergatoire River, I-25 to Arkansas River.*¹⁵

Activities that disturb the soil on the PCMS introduce significant sediments (and potentially selenium) into the Purgatoire River. The Army has made not addressed how it will prevent accelerated sediment and selenium erosion with this or unanticipated events that require a plan for on-site storm water management.

The Army further fails to identify both how and where water resources will be acquired and how wastewater containing toxic chemicals, hazardous substances, and pathogens will be managed to avert impacts to resident vegetation, wildlife and water resources. Impacts from hazardous and toxic materials used at the PCMS facility is unsubstantiated by any monitoring data or plan. Thus, the proposed mitigation as described in Section 4.9.4 to “continue to implement all applicable hazardous waste management plans and training” cannot logically constitute an adequate response given its efficacy cannot be evaluated. We anecdotally note that the recent BCT Warhorse Maneuver used an estimated 30,000 gallons/day of fuel. The EA neither discusses the current and anticipated quantities of fuel to be stored nor addresses fuel and accidental spill management and containment.

The Purgatoire River is a significant tributary to the Arkansas River. Not only did the Army plainly fail to conduct sufficient research to consider the environmental impacts of the proposed action on the already impaired water quality in the PCMS watershed but it also fails did address how impacted water quality in these streams will compromise water quality for fish, wildlife, and human use downstream in the Arkansas River. Failure to consider this information and determine whether the proposed actions may exacerbate these impairments or otherwise adversely impact water quality is a violation of NEPA.

Wetlands

¹⁵ Previously submitted to the agency as Exhibit 8 to N1MA!'s 2020 PEA comment letter submitted March 19th, 2013.

Based on review of the National Wetlands Inventory, areas in and adjacent to PCMS contain wetlands. Discharge of dredged or fill material into waters of the United States, including wetlands, are regulated under Section 505 of the Clean Water Act (CWA). The permit program is jointly administered by the U.S. Army Corps of Engineers (Corps) and EPA. The applicability of CWA 404 permit requirements to the proposed action is not reported in the PCMS Construction EA. Additionally, Executive Order (EO) 11990 directs Federal Agencies to “take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency’s responsibilities.” The PCMS Construction EA fails to describe how the proposed action or the alternatives would address the wetland protection goals in EO 11990. EPA suggests a mitigation commitment that indirect draining of, or direct disturbance of, wetland areas will be avoided if at all possible.” The PCMS Construction EA provides no indication that this analysis was performed for PCMS. The agency failed to analyze and disclose a full and complete wetlands baseline delineation that must be considered for the PCMS Construction EA to anticipate any impacts to the wetlands from the proposed action and its alternatives.

Wildlife and fish, threatened and endangered species

The biological diversity of the PCMS and surrounding lands is remarkable for a region without abundant water resources. In 2007, the Colorado Natural Heritage Program conducted a biological survey on a 2,052,474-acre tract of land surrounding the PCMS. The CNHP identified thirty-eight animals in the study area that are rare, imperiled or vulnerable globally or within the state of Colorado. The PCMS is known to be home to many imperiled wildlife species, including the bald eagle, American peregrine falcon, burrowing owl, mountain plover, ferruginous hawk and swift fox, most of which are designated as “Species of Concern” by the Colorado Division of Wildlife. These species are dependent on the black-tailed prairie dog, a keystone species of the shortgrass prairie ecosystem and another Colorado-designated Species of Concern. Other Species of Concern known to occur on the PCMS include the flathead chub, plains leopard frog, triploid checkered whiptail, Texas blind snake, Texas horned lizard, yellow-billed cuckoo, American peregrine falcon, long-billed curlew, massasauga, greater sandhill crane, Townsend’s big-eared bat, and Botta’s pocket gopher. The Mexican spotted owl, a federally listed Threatened Species, has the potential to occur at the PCMS, and the endangered black-footed ferret was undoubtedly present in the area historically.

The PCMS is also used by numerous large mammal species for migrating, breeding and foraging, including bobcat, coyote, mule deer, and pronghorn. Some of these are game species that also represent an economic asset within the drainage.

Migratory birds are protected by the Migratory Bird Treaty act but a credible inventory of those species using PCMS is apparently not available. The Army failed to inventory all wildlife species and prepare mitigation measures to protect wildlife and the habitat they depend upon as required by NEPA.

Bald and Golden Eagle Protection Act

Bald and golden eagle nests and habitat exist at the Piñon Canyon Maneuver Site and the Army has violated legal statutes 16 U.S.C. 668-668c.

Air Quality

The Army failed to evaluate air pollution impacts resulting from the proposed action. These include air pollution resulting from development, increased traffic, the addition of a Heavy Combat Aviation Brigade that includes 120 more helicopters, the addition of 700 more wheeled vehicles, the cumulative impacts of integrated weapon systems and payloads – including UAV and Laser systems – and dust emissions from training at PCMS. In addition, the cumulative impacts of DOD’s proposed LATN must also be analyzed.

The Dust Bowl of the 1930s had devastating effects on the air quality in the Great Plains states, contributing powerfully to the deadly disease of silicosis and a lethal condition known as dust pneumonia, in which dust settles all the way into the alveoli of the lungs, stopping the cilia from moving and preventing the lungs from ever clearing themselves.¹⁶

More than 300,000 tons of topsoil was airborne on “Black Sunday,” April 14, 1935 (Egan, Timothy. 2006. *The Worst Hard Time: the untold story of those who survived the great American dust bowl*. First Mariner Books. New York, New York.). “Prairie dust has a high silica content. As it builds up in the lungs it tears at the honeycombed web of air sacs and weakens the body’s resistance. After prolonged exposure, it has the same effect on people as coal dust has on a miner. Silicosis has long been a plague of people who work underground and is the oldest occupational respiratory disease. But it takes years to build up. In the High Plains, doctors were seeing a condition similar to silicosis after just three years of storms. Sinusitis, laryngitis, bronchitis – a trio of painful breath and throat ailments – were common. By the mid-1930s, a fourth condition, dust pneumonia, was rampant. It was one of the biggest killers. Doctors were not even sure if it was a disease unique from any of the common types of pneumonia, which is an infection of the lungs. They saw a pattern of symptoms: children, infants, or the elderly with coughing jags and body aches, particularly chest pains, and shortness of breath. Many had nausea and could not hold food down. Within days of diagnosis, some would die.... In March [1935] one of every five people admitted to all hospitals in southwest Kansas said they were choking on dust. The next month, more than 50 percent of admissions were for dust-related respiratory ailments.” (Egan, Timothy. 2006. *The Worst Hard Time: the untold story of those who survived the great American dust bowl*. First Mariner Books. New York, New York.)

¹⁶ Whereas there are no official death rates published for the Great Plains in the 1930s, the Kansas State Board of Health reported that in April 1935, 17 people had already died from dust pneumonia. The Red Cross declared a medical crisis in 1935. (Egan, Timothy. 2006. *The Worst Hard Time: the untold story of those who survived the great American dust bowl*. First Mariner Books. New York, New York.)

The Army's failure to consider the effects of the proposed action on air quality is highly concerning and dangerous to the human environment in the downwind Great Plains states.

Vegetation

The Army continues to fail to disclose several rare plant species found at the PCMS, including Arkansas Valley evening primrose (*Oenothera harringtonii*) (for which PCMS contains 17% of known occupied acreage and 49% of high quality plant occurrences acreage), Rayless goldenweed (*Haplopappus fremontii*) (a Category 2 Candidate plant for federal listing, for which PCMS contains 80 % of known occupied acreage and 86% of high quality plant occurrences acreage), Roundleaf four-o'clock (*Oxybaphus (Mirabilis) rotundifolius*) (C2 species for which PCMS contains 12% of known occupied acreage and 13% of high quality plant occurrences acreage), and the largest known populations of Dwarf milkweed (*Asclepias uncialis*) (C2 species for which PCMS contains 24% of known occupied acreage and 34% of high quality plant occurrences acreage).

The biological diversity of the shortgrass prairies and juniper-rimmed canyons of Southeast Colorado represent a vast and largely intact ecosystem that is not fully understood or documented. This area harbors the largest intact landscape remaining not only on Colorado's eastern plains, but also in the entire Central Shortgrass Prairie ecoregion. One of the factors that make this area so phenomenal, and so unique in Colorado, is the fact that the landscape still supports a mosaic of ecological systems, with large, very high quality patches of rare communities. The Shortgrass Prairie Partnership identified priority areas within the Central Shortgrass Prairie network to guide conservation efforts and concluded that 69,000 acres of Department of Defense lands (including PCMS) support irreplaceable species and plant communities.

Impacts to vegetation will occur as a result of the proposed activity. The PCMS Construction EA failed to evaluate the adverse impacts to vegetation resulting from training, construction and other activities at Piñon Canyon Maneuver Site. The Army failed to catalog all threatened and endangered plant species at PCMS. According to current science, any incidental or consequential "taking" of threatened or endangered plant species protected by the Endangered Species Act at PCMS must be considered a permanent loss because there is no way to develop mitigation that restores adverse impacts to their habitat.

Helicopters and other weapon systems also have impacts on shortgrass prairie. It takes less than 1/8 inch of dust to smother plant species on this fragile grassland. PCMS abuts the Comanche National Grasslands, which is a recovery unit from the Dust Bowl era. Also, surrounding ranchlands and the regional economy are impacted by dust created by destruction of soils on the PCMS. In more than 18 distinct NEPA documents since 2006, Army has failed to analyze and disclose adverse and irreparable impacts of military activities at PCMS.

Social-cultural and economy

Today, approximately 44,000 people live and work in Las Animas, Huerfano and Otero counties, the region of influence surrounding the PCMS. The rural communities and economies surrounding the PCMS depend heavily on family ranching, farming and related small businesses. Residents live and work on ranches and for ranching-related businesses, many of which have been in their families for generations.

The Purgatoire River region is home to hundreds of multi-generational ranches and farms. According to the 2007 Census of Agriculture, in Las Animas County alone there were 585 working farms and ranches encompassing more than 2 million acres of lands. Some families have lived in the Purgatoire River area since the 19th century. Many of the family ranches are owned and operated by descendants of pioneers who came to the Purgatoire Region of the Colorado Territory in the 1870s.

In 2006, a map of DOD's massive 6.9 million-acre land expansion, which had been secretly planned for years, was leaked to ranchers. The regional real estate economy was immediately paralyzed as news of the military's plans spread throughout the area. Over the course of time, as details of the takeover are discovered and DOD continues to exert unrelenting pressure on the people of the region through intensified and expanded military operations, the markets continue to be frozen. Capital investments and improvements throughout the region are delayed as ranchers, communities and businesses live under the impacts of intensified military presence in the region. Memories of the condemnations and the bitter legacy the military left in its wake of establishing the PCMS in the 1980s exacerbate social-cultural tensions and economic insecurity throughout the region.

Despite a comprehensive annually renewed congressional funding ban prohibiting DOD from spending money on any aspect of expansion at PCMS and the Order of the Federal Court vacating the 2007 PCMS Transformation ROD, the military, its contractors and politicians continue to intensify and expand military activity at PCMS and throughout the southern Great Plains. These inexorable pressures on the civilian lives and economy of the people dangerously erode confidence in the institutions of democracy.

Archeological Resources

The human cultural history of southeastern Colorado dates to more than 10,000 years ago. From that point until the 1600s, the area remained the domain of various groups of Native Americans, including northern Pueblo and Plains Apache groups.

The PCMS and surrounding lands contain some of the richest concentrations of prehistoric, archaeological and historic sites in the American West. Thousands of sites document the lives of dinosaurs, Native Americans, trappers, traders, early Hispanic settlers, cowboys, cattle and sheep ranchers, farmers and homesteaders.

According to the Army, approximately 89% of the PCMS has been inventoried for cultural resources. Of the 4,163 archaeological sites identified by the military, 948 have been determined to be eligible for inclusion in the National Register of Historic Places. In addition, five sacred-site locations have been identified at the PCMS, along with three Traditional Cultural Properties and two Areas of Concern.

Finally, PCMS contains a large number of fossils and fossil localities, ranging from dinosaur and plant beds to shell beds that were derived in an ancient lake. The lower sequence of exposed sedimentary rocks in canyons along the Purgatoire River was deposited in wind, river, lake, and shoreline environments. The upper sequence was deposited in a shallow seaway, the Western Interior Sea. Fossils of these marine rocks include clams, snails, and ammonoids. The PCMS is one of few places in the Western Interior Seaway that these species of geographically widespread animals lived. Fossils of lower canyons included fossil logs that accumulated as log jams at the base of deep valleys. Nowhere else in western United States are logs of this age known. The most important for dinosaurs is the Morrison formation; it contains dinosaur bones and stomach stones. Plant fossils also occur in the Morrison, but plant fossils are more abundant in uppermost rocks that support rims of canyons. These plants include some of the earliest fossils of flowering plants known from the region.

Sikes Act

The PCMS Construction EA makes no mention of the Sikes Act or the fact that the Army is in violation of the affirmative duty under the Sikes Act to manage the natural resources on its installations, and its impacts upon them, in a comprehensive and coordinated manner at PCMS.

The Sikes Act states, “the Secretary of each military department shall prepare and implement an integrated natural resources management plan for each military installation in the United States under the jurisdiction of the Secretary...” 16 U.S.C. §670a(a)(B). The Sikes Act further states that, “each integrated natural resources management plan prepared under subsection (a) – (1) shall, where appropriate and applicable, provide for

(A) fish and wildlife management, land management, forest management, and fish and wildlife-oriented recreation;

(B) fish and wildlife habitat enhancement or modifications;

(C) wetland protection, enhancement, and restoration, where necessary for support of fish or wildlife;

(D) integration of, and consistency among, the various activities conducted under the plan;

(E) establishment of specific natural resource management objectives and time frames for proposed action;

(F) sustained use by the public of natural resources to the extent such use is not inconsistent with the needs of fish and wildlife resources management;

(G) public access to the military installation that is necessary or appropriate for the use described in subparagraph

- (F) subject to requirements necessary to ensure safety and military security;
- (H) enforcement of natural resource laws and regulations;
- (I) no net loss in the capability of military installation lands to support the military mission of the installation; and
- (J) such other activities as the Secretary of the military department considers appropriate; 16 U.S.C. § 670 a(b)(1).

The Integrated Natural Resource Management Plan (INRMP) explains the critical role of the United States Fish and Wildlife Service (USFWS) in managing the PCMS. According to the INRMP:

“The USFWS is the primary federal agency with which Fort Carson cooperates on natural resources management. Cooperative efforts with the USFWS primarily involve federal-listed species management, migratory bird protection and management, recreation, fishing, wildlife law enforcement, habitat improvement projects, GIS, NEPA, forest and range management, noxious weed management, pest management, contaminants and wetland inventories, and providing assistance, manpower, equipment, and expertise for the day-to-day operations of the DECAM. The USFWS has the lead on the enforcement and compliance with the Endangered Species Act and Migratory Bird Treaty Act, as well as other federal wildlife acts, laws and regulations. The USFWS cooperates in a multi-agency effort to manage prairie dogs in Colorado, which includes Fort Carson and the PCMS.”

On March 23, 2010, the Fort Carson Garrison Commander notified the Mountain Prairie Region office of the USFWS that the Army was terminating its agreement with USFWS even though the contract by its terms did not expire until September 30, 2012.

The only available financial information about the Fort Carson natural resources program comes from the USFWS Sikes Act Reports – which were not disclosed in the PCMS Construction EA, the recent PCMS Construction EA or any of its predecessors and indicate that DOD has eliminated all funding for INRMP implementation. Fort Carson has eliminated the civilian agency charged with implementing the INRMP. In fact, in the Draft CAB EA, Army uses the possibility of budget cuts to minimize the severity of greenhouse gas impacts. The Army states that greenhouse gas emissions would “likely not increase” due to funding limitations, because “Congress is decreasing the Army’s budget and personnel strength” and “emissions have been shown to be proportional to Installation population.”

Part D: Conclusion

For the reasons discussed above, the PCMS Construction EA is inadequate and precludes meaningful disclosure and analysis of impacts. Chief among the deficiencies is the PCMS Construction EA failure to take a “hard look” at potential environmental, archaeological, historical and socioeconomic impact. The PCMS Construction EA fails to emphasize real environmental issues and impacts and present them concisely, clearly, and supported by evidence showing the Army has made the necessary environmental analyses.

40 Fed. Reg. §1500.2(b). Instead impacts are completely ignored without attempt at quantification or discussion in a manner intended to mislead the public into believing the proposed action and alternatives at PCMS are insignificant and even “beneficial.” In fact, analysis and disclosure of the significance of the action’s impacts on many resources are simply absent.

The PCMS Construction EA should be withdrawn. At the most basic level, it fails to fulfill its basic purpose under NEPA, which is to provide objective information and analysis to assist decision makers and to inform the public about the potential environmental consequences of this proposed action.

But there is a broader problem with the PCMS Construction EA – and, indeed, with the Army’s entire management of one of this nation’s most ecologically fragile sites. As commentators demonstrated in the above section on illegal segmentation, construction “dominos” have been proposed or actually built at the PCMS site that make no financial or programmatic sense if viewed in isolation. Instead, they appear to be efforts to come in “under the radar” of the Congressional funding ban and the nation’s environmental laws.

This record supports Not 1 More Acre!’s contention that the Pentagon has been secretly planning to turn the public and private lands surrounding the Piñon Canyon Maneuver Site into a Joint Forces Transformation Training Center for years. According to Piñon Vision Operations Order 05-09, the expansion process began “in order to obtain adequate training areas and ranges to support current and future Army and Joint Force mobilization, mission rehearsal and training requirements.” The intent was “to acquire additional, sustainable training land in the PCMS area in order to support current and anticipated future Army multi-component and joint force training requirements.”

According to Order 05-09, “[l]and expansion and *appropriate infrastructure [emphasis added]* much accommodate current and future Army and joint force training requirements with minimum restrictions/constraints on land and airspace usage.” The Army concluded that the ability to support joint training is “a critical component of this land expansion.”

The Army’s Integrated Natural Resources Management Plan, which is set to expire at the end of 2011, reveals that all but 10,731 acres of land are now available for Army Transformation training at the PCMS. According to the INRMP, 184,557 acres are available for mechanized training, 37,421 are available for restricted or dismounted training, and the Cantonment area contains 1,659 acres, leaving less than five percent of the entire property off limits as a wildlife/buffer area. *Exhibit E at 58-59*. This conflicts with statements in the Transformation EA to the effect that only 175,000 acres are available for mechanized training. *Exhibit D at 7*.

Absurdly, the Army purports in its PCMS Construction EA that the proposed action – construction of an equipment holding yard and improved field maintenance area – are unconnected to these larger actions. There is, in fact, no purpose in these initial foundational activities except to prepare the way for much larger ones already ongoing and those to follow. Constructing just one or two facilities, like eating one peanut or toppling just one domino, is simply not consistent with either human nature or the bureaucratic process.

The PCMS Construction EA should be withdrawn because it fails to meet the basic requirements of the National Environmental Policy Act. It also fails to heed the mandates of Congress as expressed in the 2007 funding ban, renewed annually since that date. It fails to make sense from a policy standpoint and it would inflict massive and irreversible damage on America's last major intact grassland, a fragile ecosystem that has not yet recovered from the far milder impacts of the Santa Fe Trail 130 years ago.

For the reasons stated in this letter, N1MA! opposes any continued use or expansion of the PCMS. The PCMS Construction EA and its predecessors and most fundamentally, the vacated PCMS Transformation EIS to which the PCMS Construction EA is directly tiered, are flawed and violate the intent and plain language of NEPA in a myriad of respects. Therefore, the Army must withdraw the PCMS Construction EA and immediately cease any training and/or any other activities at the PCMS. Commenters demand that all construction, military and related activity at PCMS immediately cease and the PCMS be shuttered from further destructive use.

Thank you for the opportunity to submit these comments, and please don't hesitate to contact me directly if you have any questions about my clients' positions.

A handwritten signature in blue ink, appearing to read 'Misty Ewegen', is written over a horizontal line.

Misty Ewegen

The Ewegen Law Firm, PLLC

919 East 10th Ave

Denver CO 80218

Tele: 720.457.1457

Fax: 720.457.9925

misty@ewellp.com

RESPONSE TO COMMENTS - LETTER ONE

Comments by Ms. Paula Ozello on behalf of the membership of the Southern Colorado Environmental Council. The full comments are reproduced here with responses interspersed.

Thank you for your comments. To assist in providing an organized response to the comment letter, the Army has organized our response to correspond to the letters and numbers of the outline adopted in the comment letter.

SOUTHERN COLORADO ENVIRONMENTAL COUNCIL 618 EAST GODDING AVENUE TRINIDAD, COLORADO 81082

April 13, 2013

RESPONSE TO THE ENVIRONMENTAL ASSESSMENT ON CONSTRUCTION OF AN EQUIPMENT HOLDING YARD AND IMPROVED FIELD MAINTENANCE AREA AT PINON CANYON MANEUVER SITE

Upon review of the Environmental Assessment we have the following concerns and questions regarding the construction of an equipment holding area and improving the field maintenance area at PCMS.

1. The equipment holding area will be in a secured fenced in area on gravel. We ask that the gravel shall be the equivalent to that of the original approved by the Army Corp of Engineer's at the formation of PCMS, it has withstood the weight of training for 30 years and continues to provide a strong road-base. It can be made to any size and mix and will hold the weight of all equipment in storage. Thus keeping with the original intent of using native natural resources in the operations and sustainability of the maneuver site.

Response: Thank you for your comment. The Army will ensure that the materials selected for this project will be appropriate for the intended use. See also response to your comment #5.

2. Furthermore, we are concerned that there is no mention of protection of the soil and ground water located under the holding yards regarding leakage of petroleum products from the equipment stored. This is a very important issue that needs to be addressed before final approval. Since the equipment is going to be parked on gravel leaked petroleum products will be able to enter the soil below and eventually the ground water. Continued contamination of the soil in this specific area would cause a cumulative impact to the soil and water. Looking at past history of procrastination of clean-up of contaminated soil from fuel spills, the SCEC feels that there has to be a definite procedure and protection in place so that proper mitigation is done at all times, without the intervention of regulatory agencies.

Response: Thank you for your comments. Although already mentioned in Hazardous Waste Section 4.9.4 of the EA, the Soils Section 4.4.5 has been updated to include the use of drip pans under any vehicles that would be parked at the holding yard. The Installation has a comprehensive program to address the management of hazardous waste, hazardous materials, and toxic substances at Fort Carson and PCMS. The

Hazardous Waste Management Plan (HWMP) addresses and is specifically required by Army Regulation 200-1. This HWMP also, in part, addresses United States Environmental Protection Agency (USEPA) Resource Conservation and Recovery Act (RCRA) regulations codified in Title 40 of the Code of Federal Regulations (CFR) Parts 260-265 and 268; and the Colorado Department of Public Health and Environment (CDPHE) regulations 6 Colorado Code of Regulations (CCR) 1007-3, Parts 2, 99, 100, and 260 - 268. This Management Plan is applicable to all units, activities and contractors on both Fort Carson and the Piñon Canyon Maneuver Site (PCMS).

3. Security? In reviewing there is no mention of security personnel being stationed at PCMS for the storage yards. We ask about the legality of this? Our understanding according to Army Regulations when modern day equipment is stored that there needs to be security personnel in place around the clock to protect the equipment and electronic technology used in the equipment. The EA does not show the stationing of any military security personnel at PCMS once this project is implemented. We would like to see further clarification of security for the military equipment that will be stored in the holding yards.

Response: The Commenter is correct in stating that when equipment is parked within the proposed holding yard that security is required. Security is the reason for overhead lighting and holding yard perimeter fencing. During a training exercise, personnel from the training unit would provide the security for the equipment that is parked in the holding area. If combat vehicles are within the holding area at times other than during the training exercise (i.e. broken, unmovable) security personnel would be required to guard the equipment. The security personnel would most likely be Soldiers or Department of the Army civilian employees. The level of foreseeable need does not require permanent stationing of personnel.

4. Renovation of the Clamshells-a 20,600SF concrete slab will be constructed at each clamshell. There is no explanation of the design of this slab as to drainage point for spilled fuels or fluids from the equipment. Consideration of a central drainage collection point be developed in the design so that these hazard fluids can be collected in one specific catch container and there would be possibility of runoff of these hazard fluids. It would be easy to access and drain on a regular basis and shipped off in marked containers to the proper hazard waste facility.

Response: The proposed renovations of the hardstand around the Clamshells have a dynamic use in regards to the type and amount of vehicles to be maintained. We believe the concrete slabs will improve site cleanliness and environmental accountability. For those reasons, mobile secondary containment units would be used. A trained environmental protection officer would be responsible for checking and appropriately handling any hazardous material collected, or discharging clean stormwater. Final selection of the Best Management Practices used would be detailed in the Stormwater Pollution Prevention Plan which is required under the EPA Multi-Sector General Permit. See changes to Section 4.5.2.1.

5. Once again, the EA shows no socioeconomic impact to our local county. We ask that Las Animas County contractors be considered for this project and all materials purchased locally.

Response: Fort Carson, in conjunction with government and private organizations and individuals, continues to improve processes that will help ensure local sources are well informed of all available economic opportunities and are appropriately considered for inclusion in any contracts and purchases associated with the proposed action and other similar opportunities.

Thank you for your consideration of our input and concerns regarding this Environmental Assessment.

On behalf of the membership of the Southern Colorado Environmental Council

Paula Ozzello

Email address pozzello@gmail.com

Phone 719-859-4048

RESPONSE TO COMMENTS – LETTER TWO

Comments by Misty Ewegen, The Ewegen Law Firm, PLLC on behalf of “Not One More Acre!” and Ms. Jean Aguerre. The full comments are contained in Appendix A beginning on page 28 of the EA. Copies of the exhibits provided with the letter are not included within this Appendix. Responses to comments follow at the conclusion of the comments submitted.

Thank you for your comments. To assist in providing an organized response to the 23-page comment letter, the Army has organized our response to correspond to the letters and numbers of the outline adopted in the comment letter.

Opening, Introduction and Conclusion.

The opening comments protest that a Notice of Availability for the EA should have been published in the federal register, because the action is “unprecedented,” as that term is used in 32 C.F.R § 651.25 and because the use and development of the 236,000-acre PCMS is self evidently “of national concern” within the meaning of 32 C.F.R. § 651.25.

The proposed action does not require, include or involve any expansion of land holdings at PCMS. It does not include any expanded use of PCMS. Therefore, the scope and scale of military activity at PCMS is not at issue. The proposed action contemplates routine and necessary improvements to the rail head facility, where armored vehicles are typically received at the start of a training evolution and from where those vehicles are embarked for return by rail at the end of such training. Therefore, this action is not unprecedented or of national concern, and federal register publication was not necessary and was not required by 32 C.F.R. Part 651.

The introduction raises a series of topics that are expanded and more comprehensively developed in other sections of the document. The Army’s response to those components will be in the applicable section and not here.

The conclusion to the comment indicates that the commenter opposes “any continued use or expansion of PCMS” and calls for the Army to withdraw the current proposal and “immediately cease any training and/or other activities at the PCMS” and that “all construction, military and related activity at PCMS immediately cease and the PCMS be shuttered from further destructive use.” Again, the proposed action does not require, include or involve any expansion of land or expanded use of PCMS. Therefore, the scope and scale of military activity at PCMS is not at issue in this proposal.

Section B.1. and B.2: Scope, Context and Relation to Prior and Future Activities

The comments suggest that the proposed action is linked to and part of the large scale military construction plan proposed in the 2007 PCMS Transformation EIS, which was vacated in 2009.

This minor construction project is unrelated to the comprehensive and large scale plan proposed by the 2007 EIS. This project represents a modest improvement to the rail transportation hub at PCMS. The project supports regular, ongoing operations and is consistent with the Army’s position on funding because it does not require, include or involve any

expansion of land holdings at PCMS. A graphic comparison of the 2007 proposal and recent improvements is attached below as figure one, which illustrates the matter.

The matters depicted as red outlines in figure one are **not** being pursued, but are depicted only for comparison with the current proposal, which is shown as yellow outlines. The 2007 proposal was a large collection of buildings, facilities, shops and warehouses. The current proposal is for a fenced storage area, not a building, and for some concrete pads for the “clamshells” which provide a small amount of shelter from the elements for vehicle maintenance purposes. The footprint of the current proposal is depicted in yellow, and other minor improvements previously accomplished since 2009 are shown in green.

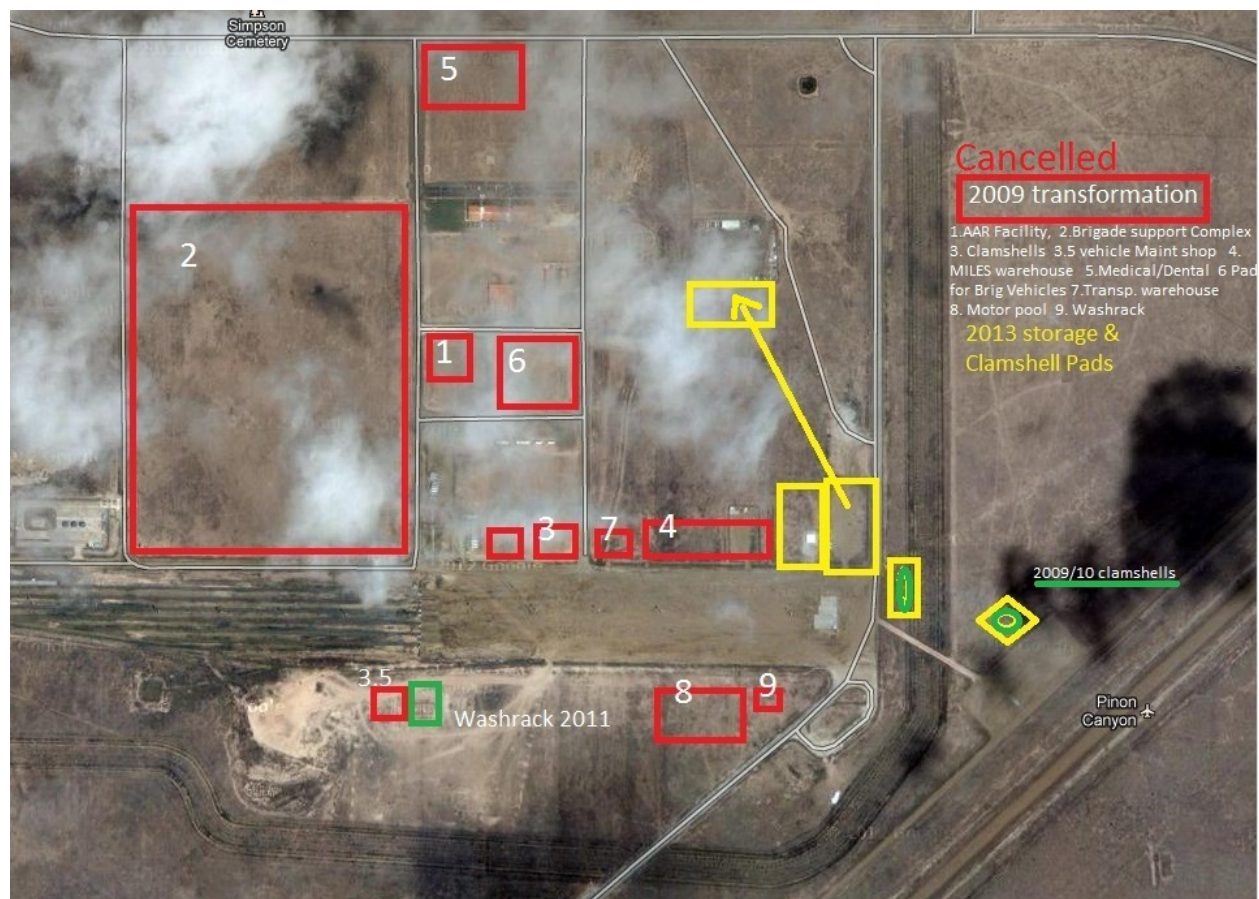


Figure 1. Depiction of Construction footprints

For a more detailed comparison, see Appendix B of the 2007 *PCMS Transformation FEIS*, in which the Army had proposed a comprehensive and large scale military construction plan detailed in Appendix B of that EIS. After a court decision vacated the ROD for that EIS, the Army, through the Department of Justice, indicated we would review any future proposals for additional training or construction to determine whether these activities constitute a major federal action that is subject to the requirements of NEPA and comply with NEPA as appropriate. The Army has not pursued the robust construction plan of the 2007 *PCMS Transformation FEIS*. However, some minor construction projects have been proposed and

constructed. The purpose and need for these minor projects is demonstrably independent and distinct from the training levels and the large scale construction program envisioned in the 2007 *PCMS Transformation FEIS*.

Clamshells: The concrete foundation for the clamshell buildings represent a modest improvement in utility and environmental stewardship. The 2007 *PCMS Transformation FEIS* had proposed two larger “clamshell” buildings, sized 175 x 100 feet, but those buildings were associated with a complex of transportation related buildings that included a motor pool, a transportation warehouse, and a vehicle maintenance shop. While the large complex was not pursued, some smaller facility for vehicle maintenance was required, consistent with the historical use of PCMS. Therefore, in 2010, the Army proposed to construct two smaller buildings for vehicle maintenance. The buildings are 141 x 60 feet and their purpose and need are unrelated to the transportation complex which was previously proposed. The buildings are necessary to provide protection from the weather for whatever military vehicles are assigned at or may temporarily use the PCMS training site. Such necessity is consistent with the historic needs of PCMS.

Vehicle Wash Rack: The vehicle wash rack is not part of the current proposal, but its history is reviewed in response to the comment. The 2007 *PCMS Transformation FEIS* proposed a Vehicle Wash Rack, which was part of a large complex of transportation related buildings that included a motor pool, a transportation warehouse, and a vehicle maintenance shop. In 2012, the Army determined that a Vehicle Wash Facility project was necessary to attain to best environmental practices regarding noxious weeds, safety, and Clean Water Act compliance. The project has independent utility and necessity, apart from any prior proposal. The purpose and need for the proposed facility is not fundamentally tied to the major construction project proposed in 2007. The purpose and need for the project is wholly independent and distinct from the training levels and the large scale construction program envisioned in the 2007 proposal. Such necessity is consistent with the historic needs of PCMS. This wash rack is not yet constructed, but is planned and proposed and has been the subject of its own appropriate NEPA analysis. It is also identified in Table 3.2-2 of the EA for CAB Stationing Implementation. Without such a facility, military vehicles must be washed using a 5,000 gallon water tanker and high pressure spray washer. Noxious weed seeds in the undercarriage may be missed and vehicle convoys could throw mud clods onto the highway. The proposed improvement will provide proper sedimentation of solids, screening and separation of any grease or oils, and effective waste water controls in order to provide greater protection to the Timpas Creek watershed. This improvement is a necessary enhancement to environmental stewardship, regardless of the frequency, tactics or other evolution of training at PCMS.

Section B.3. Quantitative information.

The comment seeks additional factual baseline information about the affected area and records of the impacts of prior use on the ecology and cultural resources of the cantonment and adjacent areas. The area in question is at the end of a rail head where a single rail line branches into multiple tracks, from which heavy armor is disembarked and later reassembled for transport back to Fort Carson. As such, the location has been subject to heavy use for

decades. Regarding Cultural Resources and the affected area, see studies and findings cited in Sections 4.7.1 and 4.7.2.

The proposed action does not require, include or involve any expansion of land holdings at PCMS. It does not include any expanded use of PCMS. Therefore, the scope and scale of military activity outside the reach of this proposed project are not at issue, and we believe the baseline for the project is appropriately documented.

Section B.4. Monitoring and Mitigation.

Monitoring and mitigation as discussed in this action is limited to the minor construction projects described within the EA.

See the 2012 Fort Carson Fugitive Dust Plan in Appendix C of this EA. Regarding Best Management Practices for fugitive dust, regardless of whether or not a permit is required, any activity capable of producing fugitive dust is required to use all available and practical methods that are technologically feasible and economically reasonable in order to minimize such emissions. Per the Colorado Air Quality Control Commission's Regulation No. 1, this control plan is enforceable and a copy held on file with the state. Section 4.3.5 has been modified to make the connection to the 2012 Fort Carson Fugitive Dust Plan more clear.

Regarding Best Management Practices for water resources, final selection of the Best Management Practices used would be detailed in the Stormwater Pollution Prevention Plan which is required under the EPA Multi-Sector General Permit. See changes to Section 4.5.2.1.

Regarding Cultural Resources and the affected area, see studies and findings cited in Sections 4.7.1 and 4.7.2.

No shortgrass prairie will be displaced or destroyed as a result of this proposal.

Section C.

Thank you for your comments. We acknowledge that there are precious natural and cultural resources on and near Piñon Canyon Maneuver Site (PCMS). The Army takes its stewardship responsibilities in these areas very seriously.

There is an ongoing need for minor construction projects at PCMS which are required for its use as a training site. This construction is necessary for the safety and security of our Soldiers and their equipment. When construction is required at PCMS, Fort Carson conducts the necessary NEPA analysis, as appropriate.

Soils and Vegetation: The proposed action would not increase or change training in any way. We have statutory, regulatory, and practical requirements to sustain the environment. The cantonment area is an already disturbed area. Section 4.4 of the EA describes the one soil type that would be impacted by implementation of the proposed action due to construction. A soil map depicting existing conditions at the PCMS cantonment was added to Section 4.4.1. Additional discussion of erosion control management has also been incorporated into Section 4.5.2.1.

Vegetation within the proposed action area (cantonment) is mostly mowed native grasses and landscaping plants. There are no Federally-listed endangered, threatened, and/or candidate plant species at PCMS.

Water Resources: The proposed action occurs only within the cantonment of PCMS. Topographical maps indicate that this portion of the cantonment area slopes from east to west. The Purgatoire River runs adjacent to PCMS's southern border (approximately 17 miles from the cantonment area). The Van Brewer Arroyo, which is the nearest tributary source of the Purgatoire River, is about 6 miles south of the proposed area. The Proposed Action would take place in the Simpson watershed. We have statutory, regulatory, and practical requirements to sustain the environment. The Environmental Protection Agency (EPA) recognizes the use of BMPs as an acceptable method of reducing nonpoint source pollution. Additional discussion of BMPs has been incorporated into SEC 4.5.2.1. The Army is aware of EPA's stringent water quality standards, and the sensitivity of PCMS's watersheds. See additional discussion for proposed mitigation measures in Section 4.5.5.

The proposed action for construction of a holding yard does not include construction of fuel storage. However, Section 4.4.5 has been updated to include the use of drip pans under any vehicles that would be parked at the holding yard. The Installation has a comprehensive program to address the management of hazardous waste, hazardous materials, and toxic substances at Fort Carson and PCMS. The Hazardous Waste Management Plan (HWMP) addresses and is specifically required by Army Regulation 200-1. This HWMP also, in part, addresses United States Environmental Protection Agency (USEPA) Resource Conservation and Recovery Act (RCRA) regulations codified in Title 40 of the Code of Federal Regulations (CFR) Parts 260-265 and 268; and the Colorado Department of Public Health and Environment (CDPHE) regulations 6 Colorado Code of Regulations (CCR) 1007-3, Parts 2, 99, 100, and 260 - 268. This Management Plan is applicable to all units, activities and contractors on both Fort Carson and the Piñon Canyon Maneuver Site (PCMS).

Wetlands: No wetlands are affected by the proposed action.

Wildlife: No species currently listed as endangered or threatened under the ESA are known to occur on PCMS. The cantonment at PCMS, although austere, is a built-environment. Most wildlife species that occur within the proposed action area are urban-adapted (such as red fox (*Vulpes vulpes*), raccoon (*Procyon lotor*), and pigeon (*Columba livia*)).

Bald and Golden eagles do occur at PCMS; however the proposed action would not occur outside of the cantonment area. The nearest known active nest is 10 miles from the cantonment of PCMS.

Air Quality: This Proposed Action only evaluates the air impacts from the activities described within. The impacts of the Combat Aviation Brigade were assessed in detail in a prior assessment titled "Fort Carson Combat Aviation Brigade Stationing Implementation, November 2011". Air quality from the proposed action due to construction would have temporary minor impacts; however the Installation's 2012 Fugitive Dust Control Plan would be followed as a Best Management Practice to minimize dust impacts to air quality. Any activity capable of producing

fugitive dust is required to use all available and practical methods that are technologically feasible and economically reasonable in order to minimize such emissions. The purpose of the fugitive dust control plan is to focus on control measures to implement that will minimize fugitive dust emissions and avoid exceeding the threshold levels dictated by the state regulations. A copy of the fugitive dust control plan has been included in Appendix C of the EA.

Socio–Cultural and Economy: The proposed action does not require or involve expansion of PCMS. Fort Carson, in conjunction with government and private organizations and individuals, continues to improve processes that will help ensure local sources are well informed of all available economic opportunities and are appropriately considered for inclusion in any contracts and purchases associated with the proposed action and other similar opportunities.

Cultural Resources: The proposed action would only occur in the PCMS cantonment area. This area has been 100% surveyed for cultural resources. Section 4.7.2 has been updated to include comments received from the Otero County Commissioners and Colorado Preservation, Inc., regarding concern for negative impacts to the Santa Fe Trail from the proposed action. While it is Fort Carson's opinion that the Santa Fe Trail will not be impacted by this proposed action, Fort Carson will continue Section 106 consultation efforts with these parties and the SHPO to resolve or mitigate for the concerns to complete the Section 106 process. Consultation correspondence has been included in Appendix B.

Sikes Act: The Sikes Act does not require or mandate that the Army use USFWS personnel to augment its staff. The Army's coordination with the USFWS is primarily implemented through an Installation Natural Resources Management Plan (INRMP). The 2013 - 2017 INRMP is available at <http://www.carson.army.mil/DPW/nepa.html>.

.

..... Appendix B
..... GYWcb %* Correspondence

RECEIVED MAR 21 2013

M. B.

March 15, 2013

Carlos Rivero-deAguilar
Chief, Environmental Division
Department of the Army
Headquarters, United States Army Garrison, Fort Carson
1626 Evans Street, Building 1219
Fort Carson, Colorado 80913

Re: Section 106 Consultation for Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site (CHS #63704)

Dear Mr. Rivero-deAguilar:

Thank you for your correspondence dated March 7, 2013 (received by our office on March 11, 2013) regarding the subject project.

Based on our review of the documentation provided, we concur that site 5LA5319 is not eligible for the National Register of Historic Places. Moreover, we concur that a finding of no historic properties affected is appropriate for the proposed undertaking [36 CFR 800.4(d)(1)].

The consultation process does involve other consulting parties such as local governments and Tribes, which as stipulated in 36 CFR 800.3 are required to be notified of the undertaking. Additional information provided by the local government, Tribes or other consulting parties may cause our office to re-evaluate our comments and recommendations.

Should unidentified archaeological resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria (36 CFR 60.4) in consultation with our office.

Thank you for the opportunity to comment. If we may be of further assistance please contact Mark Tobias, Section 106 Compliance Manager, at (303) 866-4674 or mark.tobias@state.co.us.

Sincerely,

E.C. Nichols

Edward C. Nichols
State Historic Preservation Officer
ECN/MAT

PLANNING
&
DEVELOPMENT



RECEIVED APR 01 2013

M B
P.O. BOX 167
CONCHO, OKLAHOMA 73022
1800-247-4612 Toll Free
405-422-7630 Telephone

27MAR13

Pamela Miller, Cultural Resources Manager
Office of Directorate of Public Works
1626 Evans Street, Bldg. 1219
Fort Carson, CO 80913
(719) 526-4484

RE: Section 106 Consultation for Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site

Pamela Miller:

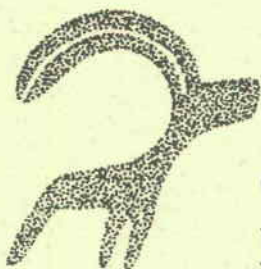
On behalf of the Cheyenne and Arapaho Tribes, greetings and thank you for the notice of the referenced project. I have reviewed your Consultation request under section 106 of the National Historic Preservation Act regarding the project proposal and commented as follows:

At this time there are no objections, however, if human skeletal remains/ or items of a cultural or historic nature are uncovered during construction, please stop immediately and notify the Cheyenne and Arapaho Tribes.

Best Regards,

Margaret Anquoe

Ms. Margaret Anquoe
Tribal Historical Preservation Officer
Cheyenne and Arapaho Tribes of Oklahoma
100 Red Moon Circle, Box 167
Concho, OK 73022



RECEIVED APR 01 2013

M. B.

COLORADO COUNCIL OF PROFESSIONAL ARCHÆOLOGISTS

25 March 2013

Mr. Carlos Rivero-deAguilar
1626 Evans Street
Building 1219
Fort Carson, Colorado, 80913

Subject: Initiation of Section 106 for Proposed Actions Related to Equipment Storage and Holding Areas on the Piñon Canyon Maneuver Site

Dear Mr. Rivero-deAguilar:

As a consulting party under Section 106 of the National Historic Preservation Act, the Colorado Council of Professional Archaeologists (CCPA) has reviewed your program letter mailed March 8, 2013 detailing an undertaking as defined under 36 CFR 800.3{a}. This letter describes three proposed actions (undertaking) needed to improve field maintenance capabilities at the Piñon Canyon Maneuver Site (PCMS). These proposed actions include relocation of the Base Operations Equipment Area (Project 1), construction of an Equipment Holding Yard (Project 2), and renovation of two existing Sprung Buildings (clamshells built in 2010-2011) (Project 3). We concur with your definition of the Area of Potential Effects (APE) (pursuant to 36 CFR 800.4{a}{1}) and acknowledge the previous ground disturbance that has occurred within the APE.

The APE was first inventoried in the early 1980s. Site 5LA.5319 (Morris Ranch), located within the project APE, was documented in 1987 and determined ineligible for the National Register of Historic Places (Register). The APE was resurveyed in 2010 as part of the larger Cantonment survey and no additional cultural resources were documented. We therefore concur that the proposed action would result in a determination of *no historic properties affected* (pursuant to 36 CFR 800.4{d}{1}).

Thank you for the opportunity to comment on this undertaking.

Sincerely yours,

Sean Larmore, President
Colorado Council of Professional Archaeologists
c/o ERO Resources Corporation
1015 1/2 Main Avenue
Durango, CO 81301



RECEIVED APR 18 2013

April 16, 2013

Carlos Rivero-deAguilar
Chief, Environmental Division
1626 Evans Street
Building 1219
Fort Carson, CO 80913

Mr. Rivero-deAguilar,

Colorado Preservation, Inc. has reviewed the Section 106 consultation for proposed actions related to equipment storage and holding areas on the Pinon Canyon Maneuver Site and has the following comments and concerns regarding the Area of Potential Effect (APE).

The (APE) is defined by three projects: Project 1-Relocate Base Operations Equipment Area, Project 2-Equipment Holding Yard Construction, and Project 3-Renovation of Sprung Buildings. Colorado Preservation, Inc. does not agree that the (APE) will be limited to those project areas. We are concerned that the Santa Fe Trail will be visually adversely effected by the project construction due to its proximity to the site. Because of the flat landscape of the area, visibility is great; therefore, we believe that the Army's statement is invalid when stated that, "as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail."

Colorado Preservation, Inc. believes that the identification of the (APE) is inadequate, and that the construction of these three projects will result in adverse effects to the Santa Fe Trail and surrounding cultural landscape. It is our recommendation that we disagree with the Army's determination of no adverse effect.

Please do not hesitate to contact me with any questions or concerns.

Sincerely,

Rachel Parris
Programs Coordinator
Colorado Preservation, Inc.



Keith Goodwin - Commissioner Dist. 1
Kevin Karney - Commissioner Dist. 2
Jim Baldwin - Commissioner Dist. 3
Michael L. Nicklos - County Attorney
Jean Hinkle - County Administrator

Office of the Commissioners

April 15, 2013

Department of the Army
DPW Environmental Division
ATTN: Pamela Miller, Cultural Resources Manager
NEPA and Cultural Management Branch
1626 Evans Street, BLDG 1219
Fort Carson, Colorado 80913

RE: Section 106 Consultation for Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site (PCMS)

Dear Ms. Miller:

The Otero County Board of Commissioners in consultation with the Otero County Historic Preservation Board has reviewed the letter and information received from the Fort Carson Cultural Resource Management staff concerning the proposed project related to equipment storage and holding areas at the PCMS.

We agree that this action does constitute an undertaking in accordance with Section 106 (CFR 800.16[y]). As such, it is the responsibility of Fort Carson/PCMS to insure that historic resources will not be adversely affected by any actions related to the undertaking.

The proposed undertaking encompasses three distinct projects. Project 1 is relocation and additions to the Base Operations Equipment Area; Project 2 is the construction of an Equipment Holding Yard to accommodate 480 vehicles; and Project 3 includes renovations to two existing clamshell buildings which were built in 2010-2011. The Army also has prepared a draft Environmental Assessment (EA) for this project. Based upon the information provided in the Section 106 consultation and the EA, we do not concur with the army's determination of no adverse effect. Specifically, we have the following concerns:

- We do not agree with the Area of Potential Effect (APE) defined by the Army. As identified, the APE is limited to the area where the equipment areas and clamshells will

be located, with a buffer surrounding these areas to allow for the movement of construction equipment and the installation of utilities. An APE is distinct from the project area; and it must take into consideration both direct and indirect effects, including visual and atmospheric. Because of the proximity of the Santa Fe Trail to the cantonment project area, it should be included in the APE. Visibility in the area regularly exceeds ten miles, therefore the army's statement is invalid that "as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail."

- Per Section 800.2 of 36 CFR Part 800, parties with a demonstrated interest in an undertaking, or its effect on historic properties should be included in the consultation process. Why weren't the National Trails Office of the National Park Service, and the Santa Fe Trail Association invited to be consulting parties?
- The EA associated with this project states that there are potential impacts to natural and cultural resources during construction. Why did the army assume that potential impacts would be limited to the actual period of construction?
- According to the information provided by the army, a total of eighteen overhead security lights will be installed. Although there currently are overhead lights at the cantonment area, the installation of eighteen high profile objects will add to the cumulative negative impact on the surrounding viewshed, including that of the Santa Fe Trail. Why was this not considered?
- The addition of eighteen high-power security lights will have a significant negative impact on the night sky. While there currently are scattered lights on the surrounding private lands, the majority of visible lights are within the PCMS. Because of the terrain, and the minimal development in the surrounding area, the lights at the PCMS already have a significant negative impact on the Santa Fe Trail and the surrounding cultural landscape. Why wasn't the APE defined to encompass the surrounding area which will be impacted by the proposed security lights? Why weren't the cumulative impact of these lights considered?
- The Section 106 information provided states that the additional parking and holding area is necessary to accommodate congestion and safety risks when equipment and vehicles are being moved into and out of the PCMS for training exercises. However, the draft EA for this project states "The 4th Infantry Division (ID) is currently considering ways to avoid millions in rail costs by storing some mechanized equipment at the PCMS, and rotating crews for training, rather than continue the practice of multiple rail shipments back and forth between Fort Carson and the PCMS for each mechanized training event." (Draft EA, Section 3.3) Why is the information provided in these two documents inconsistent; and why weren't the potential direct, indirect and cumulative impacts of this Proposed Action considered in the Section 106 review?

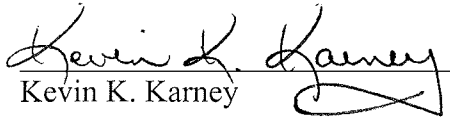
Because of the inadequate identification of the APE; the exclusion of known stakeholders from consultation for this undertaking; and the lack of consideration for direct, indirect and cumulative impacts to the Santa Fe Trail and surrounding cultural landscape, we strongly disagree with their determination of no adverse effect.

If you have any questions please contact Jean Hinkle, Otero County Administrator at 719-383-3000 or jhinkle@oterogov.org.

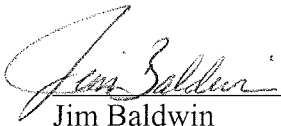
Sincerely,



Keith Goodwin, Chairman



Kevin K. Karney



Jim Baldwin

cc: Amy Pallante, Section 106 Compliance Officer at the State Historic Preservation Office



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
DIRECTORATE OF PUBLIC WORKS
1626 EVANS STREET, BLDG 1219
FORT CARSON, CO 80913-4143

Office of Director

Subject: Section 106 Consultation for Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site

Mr. Ed Nichols
State Historic Preservation Officer
Colorado Historical Society
1200 Broadway
Denver, Colorado 80203

Dear Mr. Nichols:

Enclosed please find copies of our response to the Otero County Commissioners and Colorado Preservation, Inc., along with correspondence to the Santa Fe Trail Association and the National Trails Intermountain Region office of the National Park Service, regarding comments received during Section 106 consultation for the above project.

The point of contact for this issue is Pamela Miller, Cultural Resources Manager, at (719) 526-4484 or by email at pamela.k.miller26.civ@mail.mil. Should you have questions or additional comments, please contact Ms. Miller.

Sincerely,


for Carlos Rivero-deAguilar
Chief, Environmental Division

Signed: 10.25.13

Enclosures



Keith Goodwin - Commissioner Dist. 1
Kevin Karney - Commissioner Dist. 2
Jim Baldwin - Commissioner Dist. 3
Michael L. Nicklos - County Attorney
Jean Hinkle - County Administrator

Office of the Commissioners

April 15, 2013

Department of the Army
DPW Environmental Division
ATTN: Pamela Miller, Cultural Resources Manager
NEPA and Cultural Management Branch
1626 Evans Street, BLDG 1219
Fort Carson, Colorado 80913

RE: Section 106 Consultation for Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site (PCMS)

Dear Ms. Miller:

The Otero County Board of Commissioners in consultation with the Otero County Historic Preservation Board has reviewed the letter and information received from the Fort Carson Cultural Resource Management staff concerning the proposed project related to equipment storage and holding areas at the PCMS.

We agree that this action does constitute an undertaking in accordance with Section 106 (CFR 800.16[y]). As such, it is the responsibility of Fort Carson/PCMS to insure that historic resources will not be adversely affected by any actions related to the undertaking.

The proposed undertaking encompasses three distinct projects. Project 1 is relocation and additions to the Base Operations Equipment Area; Project 2 is the construction of an Equipment Holding Yard to accommodate 480 vehicles; and Project 3 includes renovations to two existing clamshell buildings which were built in 2010-2011. The Army also has prepared a draft Environmental Assessment (EA) for this project. Based upon the information provided in the Section 106 consultation and the EA, we do not concur with the army's determination of no adverse effect. Specifically, we have the following concerns:

- We do not agree with the Area of Potential Effect (APE) defined by the Army. As identified, the APE is limited to the area where the equipment areas and clamshells will

be located, with a buffer surrounding these areas to allow for the movement of construction equipment and the installation of utilities. An APE is distinct from the project area; and it must take into consideration both direct and indirect effects, including visual and atmospheric. Because of the proximity of the Santa Fe Trail to the cantonment project area, it should be included in the APE. Visibility in the area regularly exceeds ten miles, therefore the army's statement is invalid that "as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail."

- Per Section 800.2 of 36 CFR Part 800, parties with a demonstrated interest in an undertaking, or its effect on historic properties should be included in the consultation process. Why weren't the National Trails Office of the National Park Service, and the Santa Fe Trail Association invited to be consulting parties?
- The EA associated with this project states that there are potential impacts to natural and cultural resources during construction. Why did the army assume that potential impacts would be limited to the actual period of construction?
- According to the information provided by the army, a total of eighteen overhead security lights will be installed. Although there currently are overhead lights at the cantonment area, the installation of eighteen high profile objects will add to the cumulative negative impact on the surrounding viewshed, including that of the Santa Fe Trail. Why was this not considered?
- The addition of eighteen high-power security lights will have a significant negative impact on the night sky. While there currently are scattered lights on the surrounding private lands, the majority of visible lights are within the PCMS. Because of the terrain, and the minimal development in the surrounding area, the lights at the PCMS already have a significant negative impact on the Santa Fe Trail and the surrounding cultural landscape. Why wasn't the APE defined to encompass the surrounding area which will be impacted by the proposed security lights? Why weren't the cumulative impact of these lights considered?
- The Section 106 information provided states that the additional parking and holding area is necessary to accommodate congestion and safety risks when equipment and vehicles are being moved into and out of the PCMS for training exercises. However, the draft EA for this project states "The 4th Infantry Division (ID) is currently considering ways to avoid millions in rail costs by storing some mechanized equipment at the PCMS, and rotating crews for training, rather than continue the practice of multiple rail shipments back and forth between Fort Carson and the PCMS for each mechanized training event." (Draft EA, Section 3.3) Why is the information provided in these two documents inconsistent; and why weren't the potential direct, indirect and cumulative impacts of this Proposed Action considered in the Section 106 review?

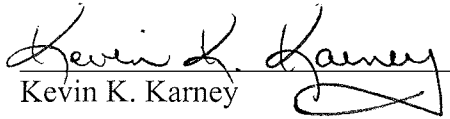
Because of the inadequate identification of the APE; the exclusion of known stakeholders from consultation for this undertaking; and the lack of consideration for direct, indirect and cumulative impacts to the Santa Fe Trail and surrounding cultural landscape, we strongly disagree with their determination of no adverse effect.

If you have any questions please contact Jean Hinkle, Otero County Administrator at 719-383-3000 or jhinkle@oterogov.org.

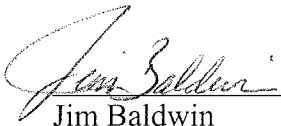
Sincerely,



Keith Goodwin, Chairman



Kevin K. Karney



Jim Baldwin

cc: Amy Pallante, Section 106 Compliance Officer at the State Historic Preservation Office



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
DIRECTORATE OF PUBLIC WORKS
1626 EVANS STREET, BLDG 1219
FORT CARSON, CO 80913-4143

Office of Director

Subject: Section 106 Consultation for Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site

Otero County Commissioners
Attn: Jean Hinkle, Administrator
P. O. Box 511
La Junta, Colorado 81050

Dear Commissioners:

Thank you for your comments in regards to the potential effects that the proposed improvements to the equipment storage and holding areas on the Pinon Canyon Maneuver Site may have on the Santa Fe National Historic Trail. To assist in responding to your comments, we have organized our response to correspond with the outline of your letter. Please see Enclosure 1.

Enclosure 2 includes four photographs of the project location from various vantage points in the vicinity of a potential route segment of the Santa Fe National Historic Trail. Also included is a photograph key depicting the locations from which the photographs were taken in relation to the Area of Potential Effects (APE) for the proposed action.

We have forwarded the National Trails Intermountain Region Office of the National Park Service and the Santa Fe Trail Association all documentation regarding this proposed action for their information. The potential route segment west of U.S. Highway 350 across from the PCMS cantonment is located on private property and has not been recorded. If this segment, or any associated historical resources, should be recorded in the future, we will address specific issues at that time, and welcome the opportunity to work with the National Park Service and the Santa Fe Trail Association.

Given Fort Carson's position that there remain no adverse visual or atmospheric effects to historic properties or the Santa Fe Trail, the Garrison Commander has been advised to sign the Finding of No Significant Impacts (FNSI) for the Construction of an Equipment Holding Yard and Improved Field Maintenance Area at Pinon Canyon Maneuver Site Environmental Assessment, allowing the proposed action to proceed.

A copy of this letter and our response has also been provided to the National Trails Intermountain Region Office of the National Park Service, the Santa Fe Trail Association, Colorado Preservation, Inc., and the State Historic Preservation Officer

(SHPO). The point of contact for this issue is Pamela Miller, Cultural Resources Manager, at (719) 526-4484 or by email at pamela.k.miller26.civ@mail.mil.

Sincerely,

A handwritten signature in black ink, appearing to read 'Carlos Rivero-deAguilar', written in a cursive style.

Carlos Rivero-deAguilar
Chief, Environmental Division

Signed: 10/24/2013

Enclosures

Enclosure 1: Fort Carson's Response to Comments from the Otero County Commissioners and Colorado Preservation, Inc.

Response to comments received from the Otero County Commissioners, dated April 15, 2013, related to equipment storage and holding areas on the Pinon Canyon Maneuver Site (PCMS). This is also being provided to Colorado Preservation, Inc., as they expressed the same concerns in their comment letter, received April 18, 2013.

Comment #1: We do not agree with the Area of Potential Effect (APE) defined by the Army. As identified, the APE is limited to the area where the equipment areas and clamshells will be located, with a buffer surrounding these areas to allow for the movement of construction equipment and the installation of utilities. An APE is distinct from the project area; and it must take into consideration both direct and indirect effects, including visual and atmospheric. Because of the proximity of the Santa Fe Trail to the cantonment project area, it should be included in the APE. Visibility in the area regularly exceeds ten miles, therefore the Army's statement is invalid that "as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail."

Response: Although the Army appreciates the overall historical significance of the Santa Fe Trail, the route segment that is located near the PCMS cantonment area is not a "historic property" as defined by 36 CFR 800.16(l)(1), nor is it a National Historic Landmark (NHL) as defined by 36 CFR 800.16(p). In Colorado, only five historic resources associated with the Santa Fe Trail are included in the National Register of Historic Places (NRHP), and two of those five are NHLs, none of which are located near the PCMS. Only one route segment (7.88 miles from Hoehne to Model) and nine other historic resources are considered "high potential sites" as defined by the National Trails System Act, which means they may be certified (or are certified) as an official component of the Santa Fe National Historic Trail. This certification does not equate to eligibility under the NHPA, and thus would not afford this segment consideration for adverse effects appropriate to a "historic property." For this reason, the APE for the Holding Area project was contained within the PCMS cantonment boundaries and did not extend to or west of Highway 350.

Comment #2: Per 36 CFR 800.2 of 36 CFR Part 800, parties with a demonstrated interest in an undertaking, or its effect on historic properties should be included in the consultation process. Why weren't the National Trails Office of the National Park Service, and the Santa Fe Trail Association invited to be consulting parties?

Response: The National Trails Office of the National Park Service (NPS) or the Santa Fe Trail Association were not included as interested parties for this project as the Santa Fe Trail is not within the established APE, and this segment is not considered a historic property, as discussed above. However, as the Santa Fe Trail is a national historic trail,

we have furnished a copy of this response, the Environmental Assessment (EA) for this project, and other supporting documentation to both entities.

Comment #3: The EA associated with this project states that there are potential impacts to natural and cultural resources during construction. Why did the Army assume that potential impacts would be limited to the actual period of construction?

Response: The proposed action is to construct new equipment storage areas and to make improvements to the existing clamshells. Potential impacts to natural and cultural resources are limited to the actual period of construction as there is no change to the current operation and maintenance activities on the PCMS and within the established APE. As stated in our undertaking review, in the event that subsurface cultural materials are encountered during any project activity, Fort Carson's Inadvertent Discovery of Archaeological, Cultural or Paleontological Materials Standard Operating Procedures will be implemented and Section 106 consultation initiated as appropriate.

Comment #4: According to the information provided by the Army, a total of eighteen overhead security lights will be installed. Although there currently are overhead lights at the cantonment area, the installation of eighteen high profile objects will add to the cumulative negative impact on the surrounding viewshed, including that of the Santa Fe Trail. Why was this not considered?

Response: The security lights included in the scope of this project are not considered high profile, as they will be the same height (30') and diameter as the current "street light" poles on the PCMS. These light poles will not exceed the height of the existing clamshell buildings. At present, safety and security concerns within the cantonment area dictate that five existing 30' 70-watt high pressure sodium security lights and eight 70-watt floodlights attached to various cantonment buildings are illuminated each night. When troops are utilizing the billets, an additional eighteen existing 30' 150-watt high pressure sodium lights are turned on. During large scale training exercises, when the railhead and current staging area are in use, there are seventeen existing 150' security lights that are used. Each of these contains eight 1000-watt halogen bulbs. The eighteen security lights included in the proposed action will only be needed during training events when the additional security lights and/or halogens will already be in use, thus eclipsed by the more powerful security lights. As such, the proposed action will not increase the current level of artificial light in the night sky over the PCMS area.

Comment #5: The addition of eighteen high-power security lights will have a significant negative impact on the night sky. While there currently are scattered lights on the surrounding lands, the majority of visible lights are within the PCMS. Because of the terrain, and the minimal development in the surrounding areas, the lights at the PCMS already have a significant negative impact on the Santa Fe Trail and the surrounding cultural landscape. Why wasn't APE defined to encompass the surrounding area that will be impacted by the proposed security lights? Why were the cumulative impacts of these lights considered?

Response: Please see the response to Comment #4 above.

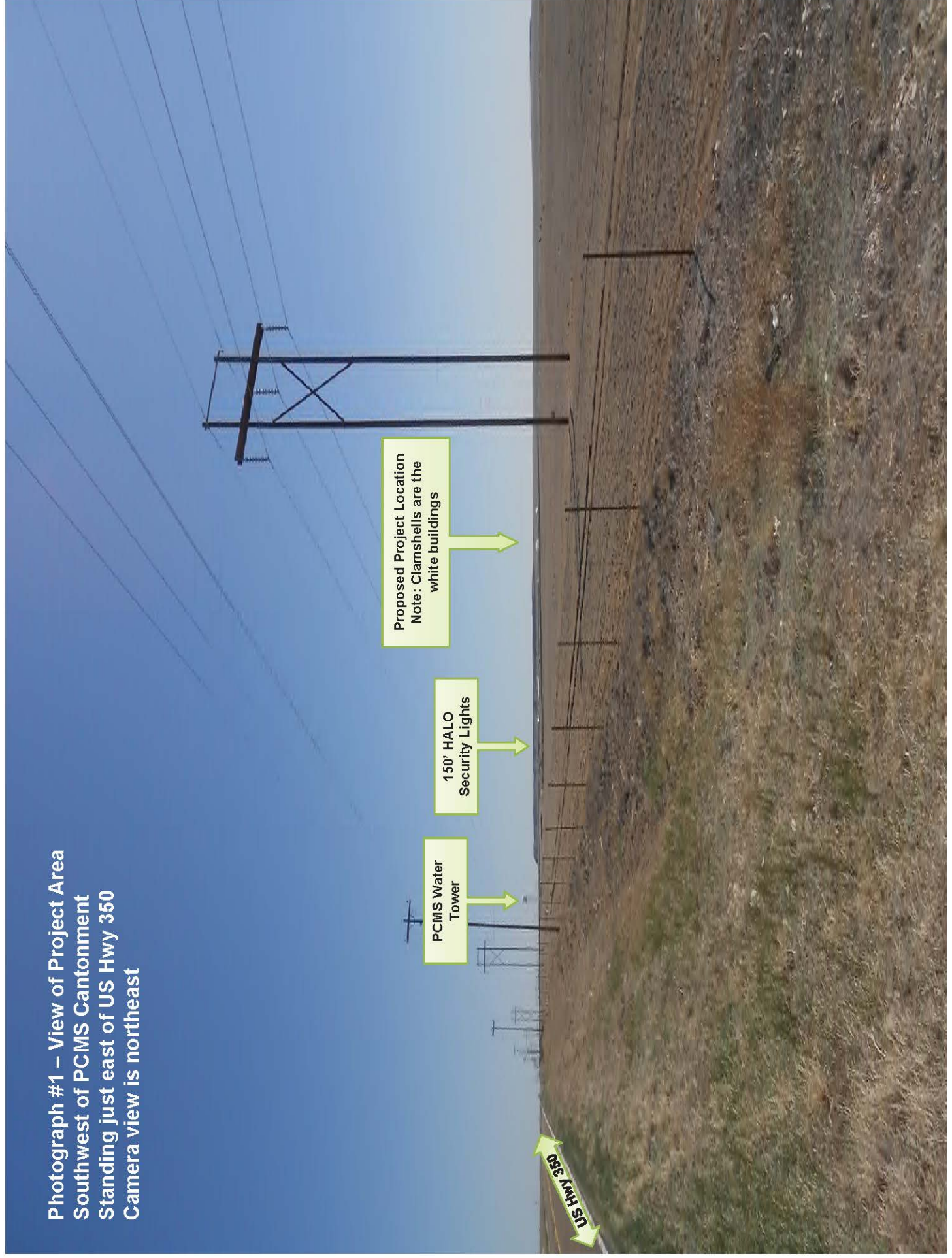
Comment #6: The Section 106 information provided states that the additional parking area and holding area is necessary to accommodate congestion and safety risks when equipment and vehicles are being moved into and out of the PCMS for training exercises. However, the draft EA for this project states “The 4th Infantry Division (ID) is currently considering ways to avoid millions in rail costs by storing some mechanized equipment at the PCMS, and rotating crews for training, rather than continue the practice of multiple rail shipments back and forth between Fort Carson and the PCMS for each mechanized training event.” (Draft EA, Section 3.3) Why is the information provided in these two documents inconsistent; and why weren’t the potential direct, indirect and cumulative impacts of this Proposed Action considered in the Section 106 review?

Response: The information in the two documents is not inconsistent. The proposed action is intended to alleviate current congestion and safety issues, as well as to accommodate the future possibility of permanently staging some equipment at the PCMS. If the Army proposes permanent equipment staging at a later time, additional NEPA and appropriate Section 106 will be conducted. As stated in our undertaking review, there are no historic properties within the APE that will be subjected to direct, indirect, or cumulative effects from the proposed action.

Enclosure 2

Photographs

Photograph #1 – View of Project Area
Southwest of PCMS Cantonment
Standing just east of US Hwy 350
Camera view is northeast



Photograph #2 – View of the Project Area
Directly west of PCMS Cantonment
Standing just west of US Hwy 350
Camera view is east



Photograph #3 – View of the Project Area
Directly west of PCMS Cantonment
Standing on the Atchison, Topeka and Santa Fe Railroad
Camera view is east



Photograph #4 – View of Project Area
North of PCMS Cantonment
Standing just east of US Hwy 350
Camera view is south





RECEIVED APR 18 2013

April 16, 2013

Carlos Rivero-deAguilar
Chief, Environmental Division
1626 Evans Street
Building 1219
Fort Carson, CO 80913

Mr. Rivero-deAguilar,

Colorado Preservation, Inc. has reviewed the Section 106 consultation for proposed actions related to equipment storage and holding areas on the Pinon Canyon Maneuver Site and has the following comments and concerns regarding the Area of Potential Effect (APE).

The (APE) is defined by three projects: Project 1-Relocate Base Operations Equipment Area, Project 2-Equipment Holding Yard Construction, and Project 3-Renovation of Sprung Buildings. Colorado Preservation, Inc. does not agree that the (APE) will be limited to those project areas. We are concerned that the Santa Fe Trail will be visually adversely effected by the project construction due to its proximity to the site. Because of the flat landscape of the area, visibility is great; therefore, we believe that the Army's statement is invalid when stated that, "as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail."

Colorado Preservation, Inc. believes that the identification of the (APE) is inadequate, and that the construction of these three projects will result in adverse effects to the Santa Fe Trail and surrounding cultural landscape. It is our recommendation that we disagree with the Army's determination of no adverse effect.

Please do not hesitate to contact me with any questions or concerns.

Sincerely,

Rachel Parris
Programs Coordinator
Colorado Preservation, Inc.



DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
DIRECTORATE OF PUBLIC WORKS
1626 EVANS STREET, BLDG 1219
FORT CARSON, CO 80913-4143

REPLY TO
ATTENTION OF

Office of Director

Subject: Section 106 Consultation for Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site

Ms. Jane Daniels
Executive Director
Colorado Preservation, Inc.
1420 Ogden Street, Suite 103
Denver, Colorado 80218

Dear Ms. Daniels:

Thank you for your comments in regards to the potential effects that the proposed improvements to the equipment storage and holding areas on the Pinon Canyon Maneuver Site may have on the Santa Fe National Historic Trail. In response to comments received from your organization and the Otero County Commissions, see Enclosure 1.

Enclosure 2 includes four photographs of the project location from various vantage points in the vicinity of a potential route segment of the Santa Fe National Historic Trail. Also included is a photograph key depicting the locations from which the photographs were taken in relation to the Area of Potential Effects (APE) for the proposed action.

We have forwarded the National Trails Intermountain Region Office of the National Park Service and the Santa Fe Trail Association all documentation regarding this proposed action for their information. The potential route segment west of U.S. Highway 350 across from the PCMS cantonment is located on private property and has not been recorded. If this segment, or any associated historical resources, should be recorded in the future, we will address specific issues at that time, and welcome the opportunity to work with the National Park Service and the Santa Fe Trail Association.

Given Fort Carson's position that there remain no adverse visual or atmospheric effects to historic properties or the Santa Fe Trail, the Garrison Commander has been advised to sign the Finding of No Significant Impacts (FNSI) for the Construction of an Equipment Holding Yard and Improved Field Maintenance Area at Pinon Canyon Maneuver Site Environmental Assessment, allowing the proposed action to proceed.

A copy of this letter and our response has also been provided to the National Trails Intermountain Region Office of the National Park Service, the Santa Fe Trail Association, the Otero County Commissioners, and the State Historic Preservation

Officer (SHPO). The point of contact for this issue is Pamela Miller, Cultural Resources Manager, at (719) 526-4484 or by email at pamela.k.miller26.civ@mail.mil.

Sincerely,

A handwritten signature in black ink, appearing to read 'Carlos Rivero-deAguilar', written in a cursive style.

Carlos Rivero-deAguilar
Chief, Environmental Division

Signed: 24 Oct 2013

Enclosures

Enclosure 1: Fort Carson's Response to Comments from the Otero County Commissioners and Colorado Preservation, Inc.

Response to comments received from the Otero County Commissioners, dated April 15, 2013, related to equipment storage and holding areas on the Pinon Canyon Maneuver Site (PCMS). This is also being provided to Colorado Preservation, Inc., as they expressed the same concerns in their comment letter, received April 18, 2013.

Comment #1: We do not agree with the Area of Potential Effect (APE) defined by the Army. As identified, the APE is limited to the area where the equipment areas and clamshells will be located, with a buffer surrounding these areas to allow for the movement of construction equipment and the installation of utilities. An APE is distinct from the project area; and it must take into consideration both direct and indirect effects, including visual and atmospheric. Because of the proximity of the Santa Fe Trail to the cantonment project area, it should be included in the APE. Visibility in the area regularly exceeds ten miles, therefore the Army's statement is invalid that "as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail."

Response: Although the Army appreciates the overall historical significance of the Santa Fe Trail, the route segment that is located near the PCMS cantonment area is not a "historic property" as defined by 36 CFR 800.16(l)(1), nor is it a National Historic Landmark (NHL) as defined by 36 CFR 800.16(p). In Colorado, only five historic resources associated with the Santa Fe Trail are included in the National Register of Historic Places (NRHP), and two of those five are NHLs, none of which are located near the PCMS. Only one route segment (7.88 miles from Hoehne to Model) and nine other historic resources are considered "high potential sites" as defined by the National Trails System Act, which means they may be certified (or are certified) as an official component of the Santa Fe National Historic Trail. This certification does not equate to eligibility under the NHPA, and thus would not afford this segment consideration for adverse effects appropriate to a "historic property." For this reason, the APE for the Holding Area project was contained within the PCMS cantonment boundaries and did not extend to or west of Highway 350.

Comment #2: Per 36 CFR 800.2 of 36 CFR Part 800, parties with a demonstrated interest in an undertaking, or its effect on historic properties should be included in the consultation process. Why weren't the National Trails Office of the National Park Service, and the Santa Fe Trail Association invited to be consulting parties?

Response: The National Trails Office of the National Park Service (NPS) or the Santa Fe Trail Association were not included as interested parties for this project as the Santa Fe Trail is not within the established APE, and this segment is not considered a historic property, as discussed above. However, as the Santa Fe Trail is a national historic trail,

we have furnished a copy of this response, the Environmental Assessment (EA) for this project, and other supporting documentation to both entities.

Comment #3: The EA associated with this project states that there are potential impacts to natural and cultural resources during construction. Why did the Army assume that potential impacts would be limited to the actual period of construction?

Response: The proposed action is to construct new equipment storage areas and to make improvements to the existing clamshells. Potential impacts to natural and cultural resources are limited to the actual period of construction as there is no change to the current operation and maintenance activities on the PCMS and within the established APE. As stated in our undertaking review, in the event that subsurface cultural materials are encountered during any project activity, Fort Carson's Inadvertent Discovery of Archaeological, Cultural or Paleontological Materials Standard Operating Procedures will be implemented and Section 106 consultation initiated as appropriate.

Comment #4: According to the information provided by the Army, a total of eighteen overhead security lights will be installed. Although there currently are overhead lights at the cantonment area, the installation of eighteen high profile objects will add to the cumulative negative impact on the surrounding viewshed, including that of the Santa Fe Trail. Why was this not considered?

Response: The security lights included in the scope of this project are not considered high profile, as they will be the same height (30') and diameter as the current "street light" poles on the PCMS. These light poles will not exceed the height of the existing clamshell buildings. At present, safety and security concerns within the cantonment area dictate that five existing 30' 70-watt high pressure sodium security lights and eight 70-watt floodlights attached to various cantonment buildings are illuminated each night. When troops are utilizing the billets, an additional eighteen existing 30' 150-watt high pressure sodium lights are turned on. During large scale training exercises, when the railhead and current staging area are in use, there are seventeen existing 150' security lights that are used. Each of these contains eight 1000-watt halogen bulbs. The eighteen security lights included in the proposed action will only be needed during training events when the additional security lights and/or halogens will already be in use, thus eclipsed by the more powerful security lights. As such, the proposed action will not increase the current level of artificial light in the night sky over the PCMS area.

Comment #5: The addition of eighteen high-power security lights will have a significant negative impact on the night sky. While there currently are scattered lights on the surrounding lands, the majority of visible lights are within the PCMS. Because of the terrain, and the minimal development in the surrounding areas, the lights at the PCMS already have a significant negative impact on the Santa Fe Trail and the surrounding cultural landscape. Why wasn't APE defined to encompass the surrounding area that will be impacted by the proposed security lights? Why were the cumulative impacts of these lights considered?

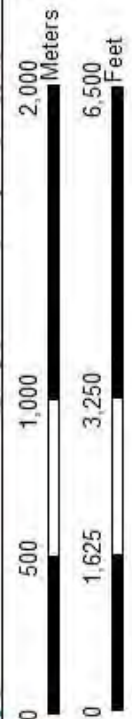
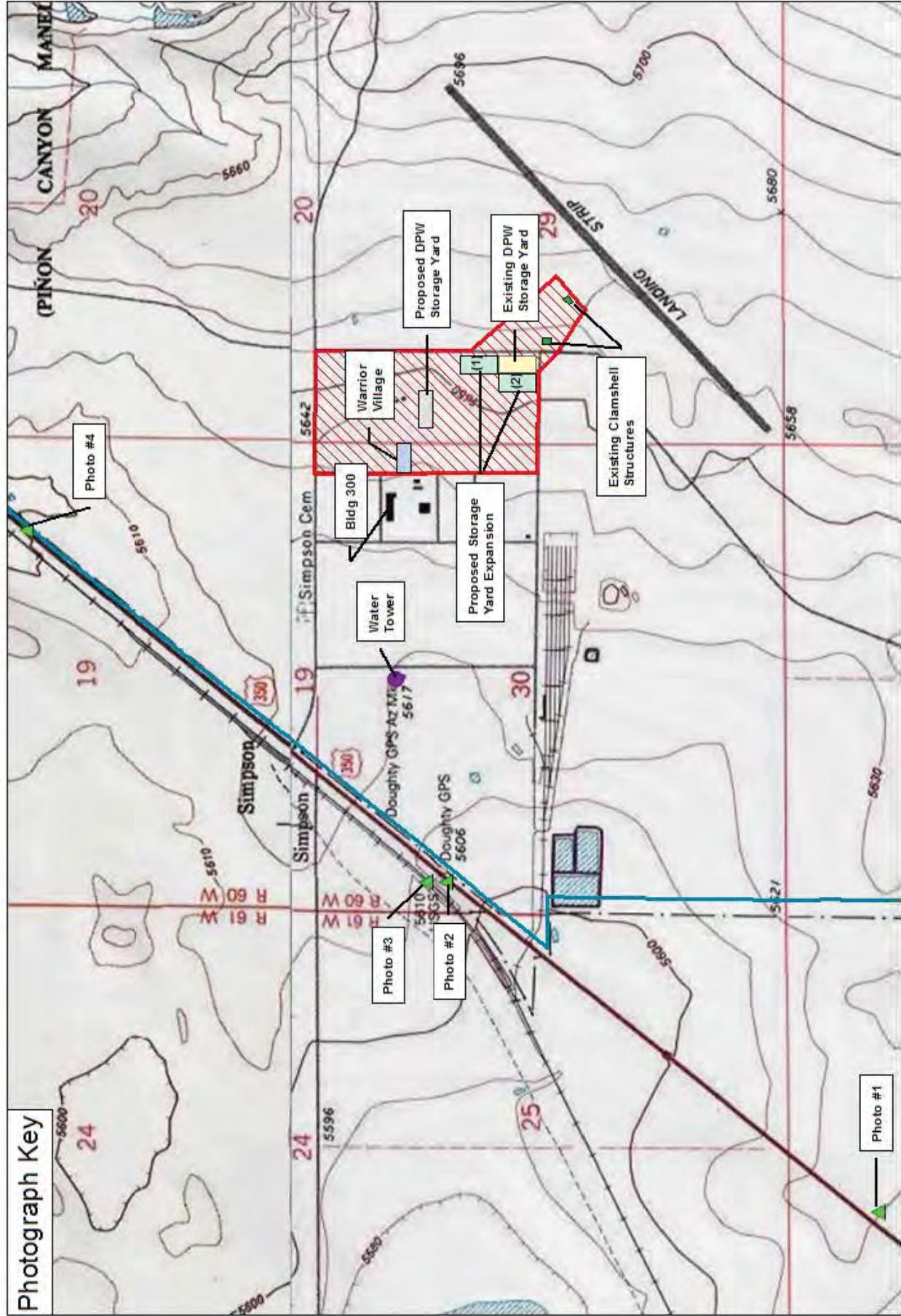
Response: Please see the response to Comment #4 above.

Comment #6: The Section 106 information provided states that the additional parking area and holding area is necessary to accommodate congestion and safety risks when equipment and vehicles are being moved into and out of the PCMS for training exercises. However, the draft EA for this project states “The 4th Infantry Division (ID) is currently considering ways to avoid millions in rail costs by storing some mechanized equipment at the PCMS, and rotating crews for training, rather than continue the practice of multiple rail shipments back and forth between Fort Carson and the PCMS for each mechanized training event.” (Draft EA, Section 3.3) Why is the information provided in these two documents inconsistent; and why weren’t the potential direct, indirect and cumulative impacts of this Proposed Action considered in the Section 106 review?

Response: The information in the two documents is not inconsistent. The proposed action is intended to alleviate current congestion and safety issues, as well as to accommodate the future possibility of permanently staging some equipment at the PCMS. If the Army proposes permanent equipment staging at a later time, additional NEPA and appropriate Section 106 will be conducted. As stated in our undertaking review, there are no historic properties within the APE that will be subjected to direct, indirect, or cumulative effects from the proposed action.

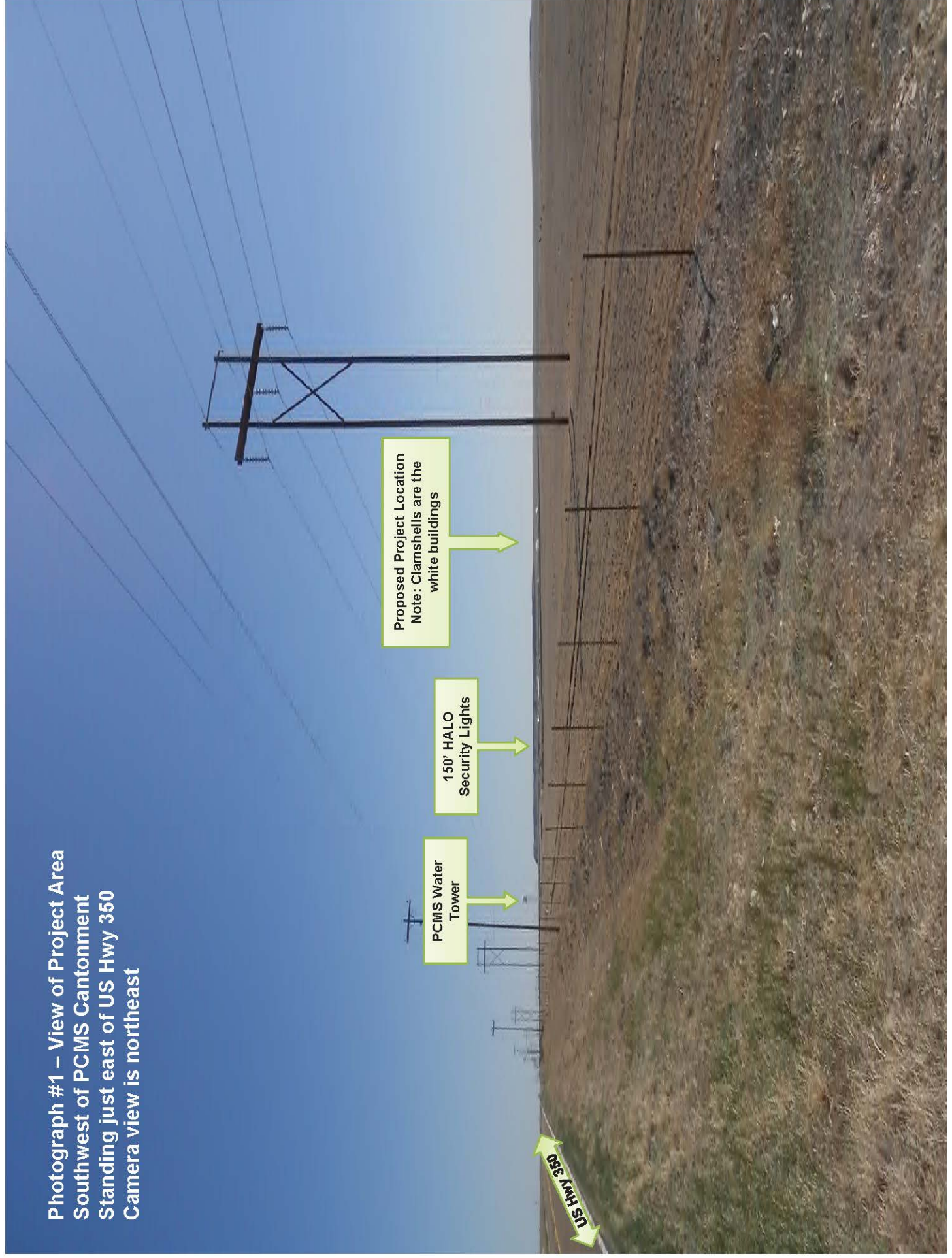
Enclosure 2

Photographs



Tyrone Quadrangle
T 29S, R 60W, Sections 29 and 30
7.5' Series, NAD 1927

Photograph #1 – View of Project Area
Southwest of PCMS Cantonment
Standing just east of US Hwy 350
Camera view is northeast



Photograph #2 – View of the Project Area
Directly west of PCMS Cantonment
Standing just west of US Hwy 350
Camera view is east



Photograph #3 – View of the Project Area
Directly west of PCMS Cantonment
Standing on the Atchison, Topeka and Santa Fe Railroad
Camera view is east



Photograph #4 – View of Project Area
North of PCMS Cantonment
Standing just east of US Hwy 350
Camera view is south





DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
DIRECTORATE OF PUBLIC WORKS
1626 EVANS STREET, BUILDING 1219
FORT CARSON, CO 80913-4143

REPLY TO
ATTENTION OF

Office of Director

Subject: Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site

Mr. Aaron Mahr, Superintendent
National Trails Intermountain Region
National Park Service
P. O. Box 728
Santa Fe, New Mexico 87504-0728

Dear Mr. Mahr:

The Otero County Commissioners and Colorado Preservation, Inc., have suggested that the National Trails Office of the National Park Service and the Santa Fe Trail Association should be contacted in relation to a proposed undertaking within the cantonment area at Pinon Canyon Maneuver Site (PCMS), Las Animas County, Colorado, due to the close proximity of the Santa Fe National Historic Trail to the project location.

The proposed undertaking is to construct new equipment storage areas and to make improvements to two existing maintenance structures (clamshells). This undertaking will serve to provide adequate facilities to store, secure, and maintain equipment at the PCMS to better support units from Fort Carson as they conduct military training missions. The Environmental Assessment (EA) and Draft Finding of No Significant Impacts (FNSI) for the Construction of an Equipment Holding Yard and Improved Field Maintenance Area at the Pinon Canyon Maneuver Site, Fort Carson, Colorado, provides project details and is available at www.carson.army.mil/DPW/nepa.html.

For additional information, enclosed please find the review packet prepared under Section 106 of the National Historic Preservation Act (NHPA) that was mailed to our consulting parties (Enclosure 1), the Section 106 response letters from the Otero County Commissioners and Colorado Preservation, Inc. (Enclosure 2), Fort Carson's response to their comments (Enclosure 3), and photographs of the project area from vantage points in the vicinity of a potential route segment of the Santa Fe National Historic Trail (Enclosure 4).

The point of contact for this issue is Pamela Miller, Cultural Resources Manager, at (719) 526-4484 or by email at pamela.k.miller26.civ@mail.mil.

Sincerely,

Carlos Rivero-deAguilar
Chief, Environmental Division

Signed: 10/24/13

Enclosures

Enclosure 1: Section 106 Undertaking Review Packet Forwarded to Consulting Parties

Fort Carson Cultural Resources Management Program Review and Evaluation of Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site (PCMS)

List of Enclosures:

1. Map showing proposed project area and components, with previously recorded historic site.
2. References.

Description of the Undertaking:

As vehicles of all types arrive at the PCMS, the marshalling area in and near the rail yard becomes heavily congested with a combination of parked and moving vehicles. An additional vehicle parking area is needed to accommodate for congestion and safety related risks. The project scope is to expand an existing fenced area adjacent to the rail yard to accommodate for congestion and safety related risks as military equipment arrives for training exercises. This area will require security fencing and overhead lights in order to meet standard Army security in accordance with Army Regulation (AR) 420–1. Fencing allows personnel to monitor activity near the vehicles, and the overhead lighting provides additional safety and security at night.

The proposed undertaking contains three actions necessary to construct an equipment holding yard and renovate other existing facilities to improve field maintenance capabilities at the PCMS. The actions within the undertaking will serve to provide adequate facilities to store, secure, and maintain equipment at the PCMS to better support units from Fort Carson conduct military training missions. The undertaking includes the necessary infrastructure improvements for the facilities involved, such as utility and communication connectivity. Reference Enclosure 1 for locations of the projects detailed below.

Project 1 – Relocate Base Operations Equipment Area:

This project consists of a 60,000 square foot (SF) area to be constructed to the south of the existing PCMS storage and maintenance area (used for non-military equipment and vehicles). The new area will be graveled and secured with 700 linear feet (LF) of fencing. Two security lights will be installed. Upon completion, the existing DPW storage yard will be cleared and all equipment and supplies relocated to the new proposed location.

Project 2 – Equipment Holding Yard Construction:

This project is to construct an 80,000 SF secured holding yard adjacent to the existing DPW storage yard, either to the north (Option 1) or to the west (Option 2). The new yard area will be combined with the existing yard to create the holding area for military vehicles during training exercises. The entire area will be graveled and fenced (800 LF of new fencing and 120 LF of existing fence repaired). Eight security lights will be installed. The total area is intended to accommodate approximately 480 vehicles.

Project 3 – Renovation of Sprung Buildings (clamshells):

This project includes changes to the interior of the two existing clamshells, constructed in 2010-2011 (CHS#57225), to better accommodate maintenance and repair work on military vehicles and equipment during training events. Additionally, a 20,600 SF concrete slab will be constructed at each building, upon which the clamshell and pad will be fenced (840 LF each) and security lights installed (4 lights per clamshell).

Area of Potential Effects for the Proposed Project

Fort Carson's Cultural Resources Program (CRMP) personnel have completed review of this undertaking. The Area of Potential Effects (APE) shown on the map at Enclosure 1 was established in accordance with 36 CFR 800.16[d], and includes a buffer to accommodate the installation of required utilities and the movement of construction equipment and materials. All project components exist on previously disturbed landforms, and past survey and evaluation projects demonstrate that there are no significant cultural materials within the APE.

Potential for Impacts to Historic Properties

CRMP personnel have made site visits and reviewed all archaeological inventories conducted in and around the APE for the proposed action. Phase I archaeological survey was performed by the University of Denver (DU) in 1983 and 1984 (Andrefsky 1990) and the entire PCMS Cantonment, to include current project area, was resurveyed by the CRMP in 2010 (Miller 2010).

5LA05319: The property known as the Morris Ranch was inventoried and evaluated in 1987 as part of the National Register eligibility work for 49 historic sites on the PCMS (Haynes and Bastian 1987). It was made Officially Not Eligible in 1987, requiring no further management by Fort Carson.

As such, there are no properties eligible for inclusion in the National Register, nor properties with the potential for National Register eligibility, located within the APE, and as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail.

Should potential impacts to any historic properties be identified in the future due to a change in the submitted scope of work, proposed location, or due to activities proposed beyond the scope of this undertaking, additional Section 106 consultation will be initiated as required. In the event that subsurface cultural materials are encountered during any project activity, Fort Carson's Inadvertent Discovery of Archaeological, Cultural, or Paleontological Materials will be implemented and Section 106 consultation initiated.

As a result of this internal evaluation and review, the Fort Carson Cultural Resources Manager (CRM) proposes a determination of *"no historic properties affected"* in accordance with Section 106 (36 CFR 800.4(d)(1)) of the National Historic Preservation Act (NHPA) for the actions proposed for this undertaking.

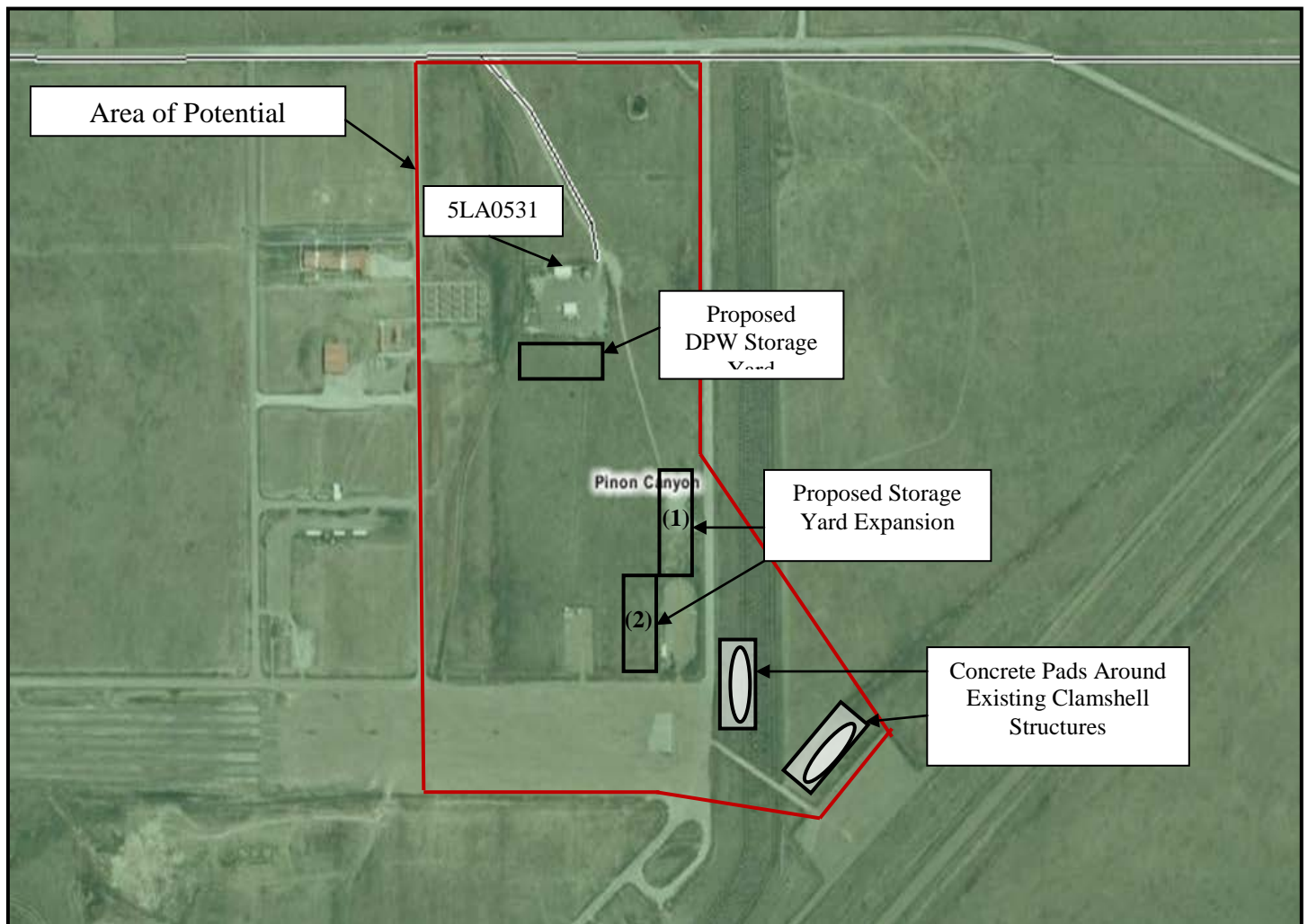
Direct, Indirect, and Cumulative Effects of the Proposed Undertaking:

The cumulative impact to cultural resources consists of past, present, and reasonably foreseeable future actions which affect archeological resources or historic resources or their viewsheds on and near the PCMS. As is true of cultural and historic resources world-wide, impacts to such places are tied to land use; i.e., a particular culture's view of the landscape it occupies and the societal functions that the land fulfills for that group. Each subsequent population or activity that occupies a landscape produces an impact to past land use practices and cultural remains. The foundation of archaeological and anthropological investigation was formed within these tenets of human progress in order to understand the past, present, and future. Landscapes with repeated use tend to contain high site densities, as human populations are drawn to natural resources, such as water, arable land, minerals, and climates hospitable for game and crops. Repeated land use also means re-use of both natural and man-made materials, such as is seen in the remnants of numerous stone structures scattered throughout Colorado.

It is anticipated that this proposed undertaking would not result in significant adverse cumulative impacts to cultural resources due to the historic use of the Cantonment Area and the continued cultural resource management program and policies in place. Procedures and processes that Fort Carson implements to protect cultural resources are discussed in further detail below.

As mandated by federal law, it is current Fort Carson practice to conduct archaeological and historic building inventories and evaluations on resource areas prior to use by impact-generating activities, whether those activities be military training, construction, or other land management actions, such as erosion control and re-seeding efforts. For archaeological sites, once identified, each site is recorded, evaluated for eligibility on the National Register, and the cultural landscape is analyzed. If applicable, significant sites are set apart using a variety of site protection methods. In this way, the information gained ensures that the cultural characteristics and lifeways of those who have come before us is not lost to history, but rather contributes to it. The information acquired is used for future land management, and is also made available to qualified researchers for professional purposes and used in the Cultural Resources Management Program's considerable educational outreach efforts.

Enclosure 1: Map of Proposed PCMS Holding Area Actions



Tyrone Quadrangle
T 29 S, R 60 W, Sections 29 and 30
7.5 Minute Series, NAD 1927

Enclosure 2. References.

Andrefsky, William.

- 1990 *An Introduction to the Archaeology of Pinon Canyon, Southeastern Colorado*. 6 vols. Prepared for National Park Service, Rocky Mountain Regional Office, Denver, Colorado, by Larson-Tibesar Associates, Inc., Laramie, Wyoming, and Centennial Archaeology, Inc., Fort Collins, Colorado.

Haynes, Robin A. and Beverly E. Bastian

- 1987 *Historical Architectural Evaluation of 49 Sites in the Pinon Canyon Maneuver Site (PCMS) for National Register of Historic Places Eligibility, Las Animas County, Colorado*. Prepared for U.S. Department of Interior, National Park Service, Rocky Mountain Regional Office, Denver, Colorado by Gilbert/Commonwealth, Inc., Jackson, Michigan.

Miller, Pamela

- 2010 Memorandum for Record: 2010 Resurvey of PCMS Cantonment Area (CF2010-010). Fort Carson Cultural Resources Management Program Document.

Enclosure 2: Comment Letters from the Otero County Commissioners and Colorado Preservation, Inc.



Keith Goodwin - Commissioner Dist. 1
Kevin Karney - Commissioner Dist. 2
Jim Baldwin - Commissioner Dist. 3
Michael L. Nicklos - County Attorney
Jean Hinkle - County Administrator

Office of the Commissioners

April 15, 2013

Department of the Army
DPW Environmental Division
ATTN: Pamela Miller, Cultural Resources Manager
NEPA and Cultural Management Branch
1626 Evans Street, BLDG 1219
Fort Carson, Colorado 80913

RE: Section 106 Consultation for Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site (PCMS)

Dear Ms. Miller:

The Otero County Board of Commissioners in consultation with the Otero County Historic Preservation Board has reviewed the letter and information received from the Fort Carson Cultural Resource Management staff concerning the proposed project related to equipment storage and holding areas at the PCMS.

We agree that this action does constitute an undertaking in accordance with Section 106 (CFR 800.16[y]). As such, it is the responsibility of Fort Carson/PCMS to insure that historic resources will not be adversely affected by any actions related to the undertaking.

The proposed undertaking encompasses three distinct projects. Project 1 is relocation and additions to the Base Operations Equipment Area; Project 2 is the construction of an Equipment Holding Yard to accommodate 480 vehicles; and Project 3 includes renovations to two existing clamshell buildings which were built in 2010-2011. The Army also has prepared a draft Environmental Assessment (EA) for this project. Based upon the information provided in the Section 106 consultation and the EA, we do not concur with the army's determination of no adverse effect. Specifically, we have the following concerns:

- We do not agree with the Area of Potential Effect (APE) defined by the Army. As identified, the APE is limited to the area where the equipment areas and clamshells will

be located, with a buffer surrounding these areas to allow for the movement of construction equipment and the installation of utilities. An APE is distinct from the project area; and it must take into consideration both direct and indirect effects, including visual and atmospheric. Because of the proximity of the Santa Fe Trail to the cantonment project area, it should be included in the APE. Visibility in the area regularly exceeds ten miles, therefore the army's statement is invalid that "as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail."

- Per Section 800.2 of 36 CFR Part 800, parties with a demonstrated interest in an undertaking, or its effect on historic properties should be included in the consultation process. Why weren't the National Trails Office of the National Park Service, and the Santa Fe Trail Association invited to be consulting parties?
- The EA associated with this project states that there are potential impacts to natural and cultural resources during construction. Why did the army assume that potential impacts would be limited to the actual period of construction?
- According to the information provided by the army, a total of eighteen overhead security lights will be installed. Although there currently are overhead lights at the cantonment area, the installation of eighteen high profile objects will add to the cumulative negative impact on the surrounding viewshed, including that of the Santa Fe Trail. Why was this not considered?
- The addition of eighteen high-power security lights will have a significant negative impact on the night sky. While there currently are scattered lights on the surrounding private lands, the majority of visible lights are within the PCMS. Because of the terrain, and the minimal development in the surrounding area, the lights at the PCMS already have a significant negative impact on the Santa Fe Trail and the surrounding cultural landscape. Why wasn't the APE defined to encompass the surrounding area which will be impacted by the proposed security lights? Why weren't the cumulative impact of these lights considered?
- The Section 106 information provided states that the additional parking and holding area is necessary to accommodate congestion and safety risks when equipment and vehicles are being moved into and out of the PCMS for training exercises. However, the draft EA for this project states "The 4th Infantry Division (ID) is currently considering ways to avoid millions in rail costs by storing some mechanized equipment at the PCMS, and rotating crews for training, rather than continue the practice of multiple rail shipments back and forth between Fort Carson and the PCMS for each mechanized training event." (Draft EA, Section 3.3) Why is the information provided in these two documents inconsistent; and why weren't the potential direct, indirect and cumulative impacts of this Proposed Action considered in the Section 106 review?

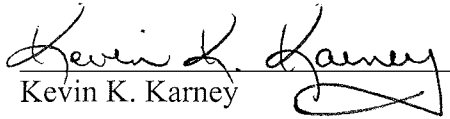
Because of the inadequate identification of the APE; the exclusion of known stakeholders from consultation for this undertaking; and the lack of consideration for direct, indirect and cumulative impacts to the Santa Fe Trail and surrounding cultural landscape, we strongly disagree with their determination of no adverse effect.

If you have any questions please contact Jean Hinkle, Otero County Administrator at 719-383-3000 or jhinkle@oterogov.org.

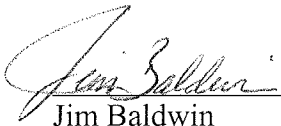
Sincerely,



Keith Goodwin, Chairman



Kevin K. Karney



Jim Baldwin

cc: Amy Pallante, Section 106 Compliance Officer at the State Historic Preservation Office



RECEIVED APR 18 2013

April 16, 2013

Carlos Rivero-deAguilar
Chief, Environmental Division
1626 Evans Street
Building 1219
Fort Carson, CO 80913

Mr. Rivero-deAguilar,

Colorado Preservation, Inc. has reviewed the Section 106 consultation for proposed actions related to equipment storage and holding areas on the Pinon Canyon Maneuver Site and has the following comments and concerns regarding the Area of Potential Effect (APE).

The (APE) is defined by three projects: Project 1-Relocate Base Operations Equipment Area, Project 2-Equipment Holding Yard Construction, and Project 3-Renovation of Sprung Buildings. Colorado Preservation, Inc. does not agree that the (APE) will be limited to those project areas. We are concerned that the Santa Fe Trail will be visually adversely effected by the project construction due to its proximity to the site. Because of the flat landscape of the area, visibility is great; therefore, we believe that the Army's statement is invalid when stated that, "as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail."

Colorado Preservation, Inc. believes that the identification of the (APE) is inadequate, and that the construction of these three projects will result in adverse effects to the Santa Fe Trail and surrounding cultural landscape. It is our recommendation that we disagree with the Army's determination of no adverse effect.

Please do not hesitate to contact me with any questions or concerns.

Sincerely,

Rachel Parris
Programs Coordinator
Colorado Preservation, Inc.

Enclosure 3: Fort Carson's Response to Comments from the Otero County Commissioners and Colorado Preservation, Inc.

Response to comments received from the Otero County Commissioners, dated April 15, 2013, related to equipment storage and holding areas on the Pinon Canyon Maneuver Site (PCMS). This is also being provided to Colorado Preservation, Inc., as they expressed the same concerns in their comment letter, received April 18, 2013.

Comment #1: We do not agree with the Area of Potential Effect (APE) defined by the Army. As identified, the APE is limited to the area where the equipment areas and clamshells will be located, with a buffer surrounding these areas to allow for the movement of construction equipment and the installation of utilities. An APE is distinct from the project area; and it must take into consideration both direct and indirect effects, including visual and atmospheric. Because of the proximity of the Santa Fe Trail to the cantonment project area, it should be included in the APE. Visibility in the area regularly exceeds ten miles, therefore the Army's statement is invalid that "as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail."

Response: Although the Army appreciates the overall historical significance of the Santa Fe Trail, the route segment that is located near the PCMS cantonment area is not a "historic property" as defined by 36 CFR 800.16(l)(1), nor is it a National Historic Landmark (NHL) as defined by 36 CFR 800.16(p). In Colorado, only five historic resources associated with the Santa Fe Trail are included in the National Register of Historic Places (NRHP), and two of those five are NHLs, none of which are located near the PCMS. Only one route segment (7.88 miles from Hoehne to Model) and nine other historic resources are considered "high potential sites" as defined by the National Trails System Act, which means they may be certified (or are certified) as an official component of the Santa Fe National Historic Trail. This certification does not equate to eligibility under the NHPA, and thus would not afford this segment consideration for adverse effects appropriate to a "historic property." For this reason, the APE for the Holding Area project was contained within the PCMS cantonment boundaries and did not extend to or west of Highway 350.

Comment #2: Per 36 CFR 800.2 of 36 CFR Part 800, parties with a demonstrated interest in an undertaking, or its effect on historic properties should be included in the consultation process. Why weren't the National Trails Office of the National Park Service, and the Santa Fe Trail Association invited to be consulting parties?

Response: The National Trails Office of the National Park Service (NPS) or the Santa Fe Trail Association were not included as interested parties for this project as the Santa Fe Trail is not within the established APE, and this segment is not considered a historic property, as discussed above. However, as the Santa Fe Trail is a national historic trail, we have furnished a copy of this response, the Environmental Assessment (EA) for this project, and other supporting documentation to both entities.

Comment #3: The EA associated with this project states that there are potential impacts to natural and cultural resources during construction. Why did the Army assume that potential impacts would be limited to the actual period of construction?

Response: The proposed action is to construct new equipment storage areas and to make improvements to the existing clamshells. Potential impacts to natural and cultural resources are limited to the actual period of construction as there is no change to the current operation and maintenance activities on the PCMS and within the established APE. As stated in our undertaking review, in the event that subsurface cultural materials are encountered during any project activity, Fort Carson's Inadvertent Discovery of Archaeological, Cultural or Paleontological Materials Standard Operating Procedures will be implemented and Section 106 consultation initiated as appropriate.

Comment #4: According to the information provided by the Army, a total of eighteen overhead security lights will be installed. Although there currently are overhead lights at the cantonment area, the installation of eighteen high profile objects will add to the cumulative negative impact on the surrounding viewshed, including that of the Santa Fe Trail. Why was this not considered?

Response: The security lights included in the scope of this project are not considered high profile, as they will be the same height (30') and diameter as the current "street light" poles on the PCMS. These light poles will not exceed the height of the existing clamshell buildings. At present, safety and security concerns within the cantonment area dictate that five 30' 70-watt high pressure sodium security lights and eight 70-watt floodlights attached to various cantonment buildings are illuminated each night. When troops are utilizing the billets, an additional eighteen 30' 150-watt high pressure sodium lights are turned on. During large scale training exercises, when the railhead and current staging area are in use, there are seventeen 150' security lights that are used. Each of these contains eight 1000-watt halogen bulbs. The eighteen security lights included in the proposed action will only be needed during training events when the additional security lights and/or halogens will already be in use, thus eclipsed by the more powerful security lights. As such, the proposed action will not increase the current level of artificial light in the night sky over the PCMS area.

Comment #5: The addition of eighteen high-power security lights will have a significant negative impact on the night sky. While there currently are scattered lights on the surrounding lands, the majority of visible lights are within the PCMS. Because of the terrain, and the minimal development in the surrounding areas, the lights at the PCMS already have a significant negative impact on the Santa Fe Trail and the surrounding cultural landscape. Why wasn't APE defined to encompass the surrounding area that will be impacted by the proposed security lights? Why were the cumulative impacts of these lights considered?

Response: Please see the response to Comment #4 above.

Comment #6: The Section 106 information provided states that the additional parking area and holding area is necessary to accommodate congestion and safety risks when

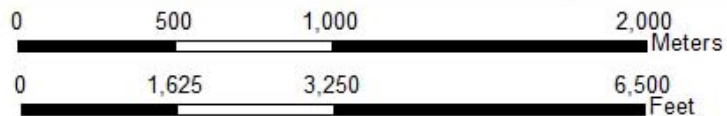
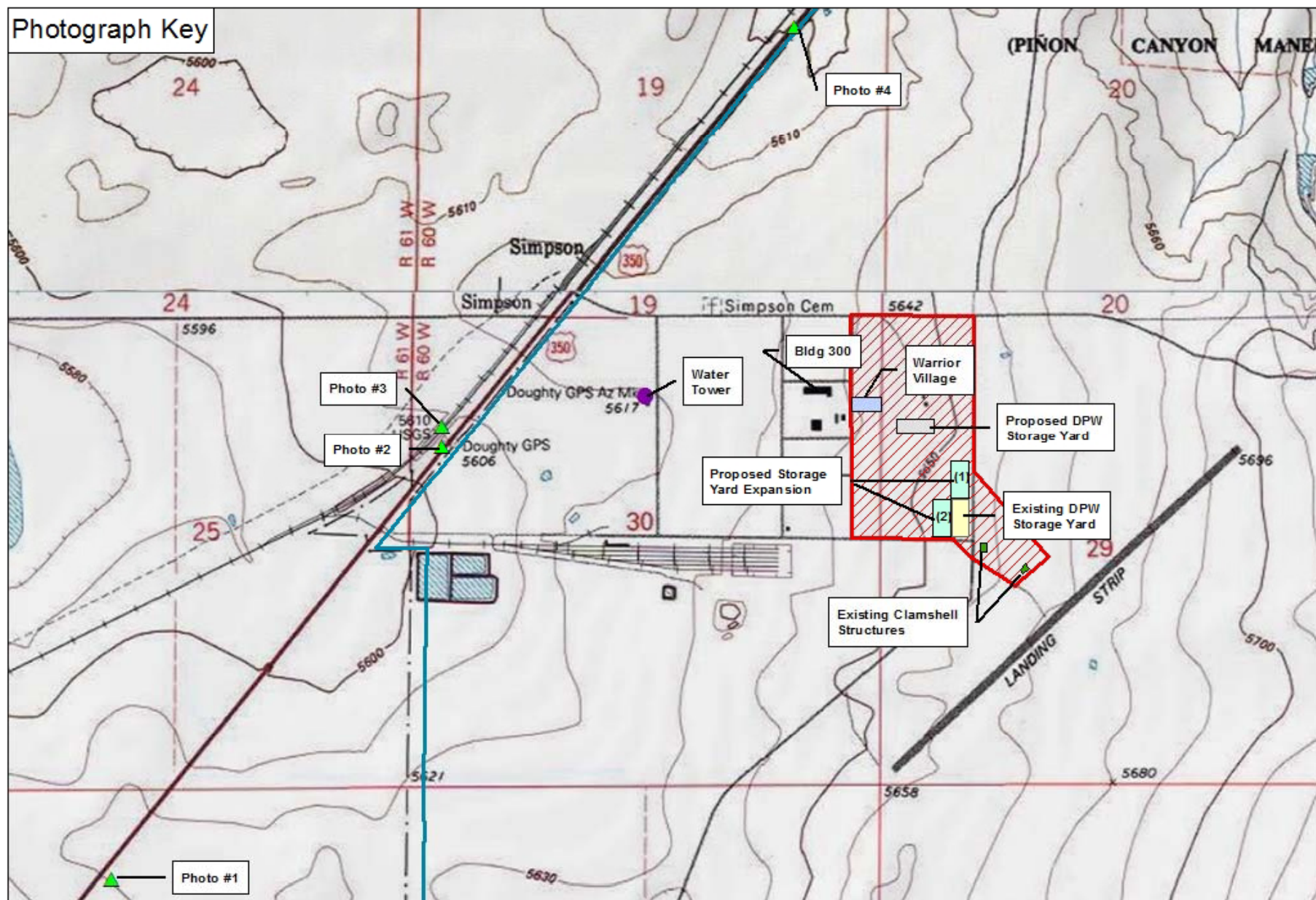
equipment and vehicles are being moved into and out of the PCMS for training exercises. However, the draft EA for this project states “The 4th Infantry Division (ID) is currently considering ways to avoid millions in rail costs by storing some mechanized equipment at the PCMS, and rotating crews for training, rather than continue the practice of multiple rail shipments back and forth between Fort Carson and the PCMS for each mechanized training event.” (Draft EA, Section 3.3) Why is the information provided in these two documents inconsistent; and why weren’t the potential direct, indirect and cumulative impacts of this Proposed Action considered in the Section 106 review?

Response: The information in the two documents is not inconsistent. The proposed action is intended to alleviate current congestion and safety issues, as well as to accommodate the future possibility of permanently staging some equipment at the PCMS. If the Army proposes permanent equipment staging at a later time, additional NEPA and appropriate Section 106 will be conducted. As stated in our undertaking review, there are no historic properties within the APE that will be subjected to direct, indirect, or cumulative effects from the proposed action.

Enclosure 4

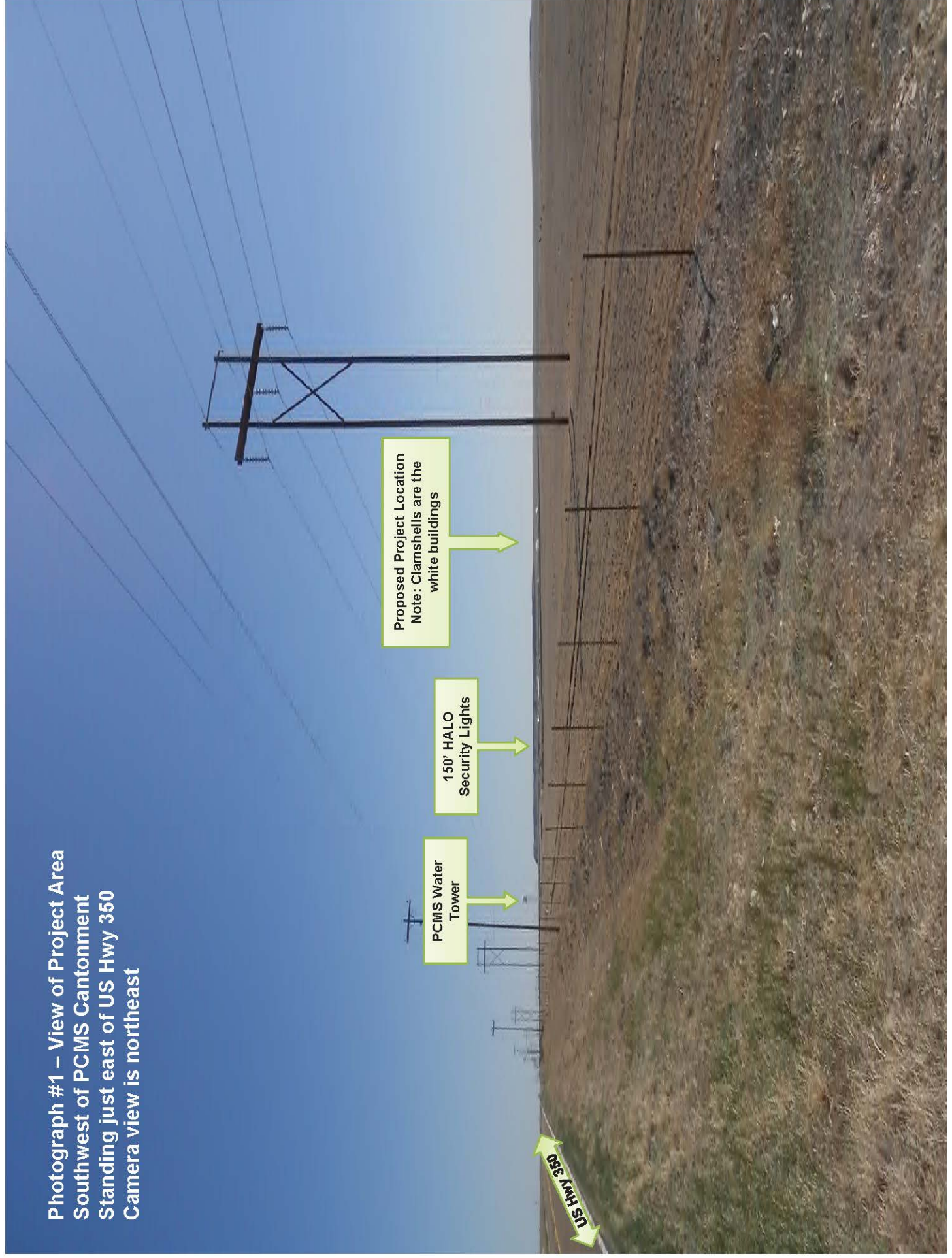
Photographs

Photograph Key



Tyrone Quadrangle
T 29S, R 60W, Sections 29 and 30
7.5' Series, NAD 1927

Photograph #1 – View of Project Area
Southwest of PCMS Cantonment
Standing just east of US Hwy 350
Camera view is northeast



Photograph #2 – View of the Project Area
Directly west of PCMS Cantonment
Standing just west of US Hwy 350
Camera view is east



Photograph #3 – View of the Project Area
Directly west of PCMS Cantonment
Standing on the Atchison, Topeka and Santa Fe Railroad
Camera view is east



Photograph #4 – View of Project Area
North of PCMS Cantonment
Standing just east of US Hwy 350
Camera view is south





DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
DIRECTORATE OF PUBLIC WORKS
1626 EVANS STREET, BLDG 1219
FORT CARSON, CO 80913-4143

REPLY TO
ATTENTION OF

Office of Director

Subject: Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site

Ms. La Donna Hutton, President
Santa Fe Trail Association
1349 K-156 Highway
Larned, Kansas 67550

Dear Ms. Hutton:

The Otero County Commissioners and Colorado Preservation, Inc., have suggested that the Santa Fe Trail Association and the National Trails Office of the National Park Service should be contacted in relation to a proposed Army undertaking within the cantonment area at the Pinon Canyon Maneuver Site (PCMS), Las Animas County, Colorado, due to the close proximity of the Santa Fe National Historic Trail to the project location.

The proposed undertaking is to construct new equipment storage areas and to make improvements to two existing maintenance structures (clamshells). This undertaking will serve to provide adequate facilities to store, secure, and maintain equipment at the PCMS to better support units from Fort Carson as they conduct military training missions. The Environmental Assessment (EA) and Draft Finding of No Significant Impacts (FNSI) for the Construction of an Equipment Holding Yard and Improved Field Maintenance Area at the Pinon Canyon Maneuver Site, Fort Carson, Colorado, provides project details and is available at www.carson.army.mil/DPW/nepa.html.

For additional information, enclosed please find the review packet prepared under Section 106 of the National Historic Preservation Act (NHPA) that was mailed to our consulting parties (Enclosure 1), the Section 106 response letters from the Otero County Commissioners and Colorado Preservation, Inc. (Enclosure 2), Fort Carson's response to their comments (Enclosure 3), and photographs of the project area from vantage points in the vicinity of a potential route segment of the Santa Fe National Historic Trail (Enclosure 4).

The point of contact for this issue is Ms. Pamela Miller, Cultural Resources Manager, at (719) 526-4484 or by email at pamela.k.miller26.civ@mail.mil.

Sincerely,

Carlos Rivero-deAguiar
Chief, Environmental Division

Signed: 10/24/13

Enclosures

Enclosure 1: Section 106 Undertaking Review Packet Forwarded to Consulting Parties

Fort Carson Cultural Resources Management Program Review and Evaluation of Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site (PCMS)

List of Enclosures:

1. Map showing proposed project area and components, with previously recorded historic site.
2. References.

Description of the Undertaking:

As vehicles of all types arrive at the PCMS, the marshalling area in and near the rail yard becomes heavily congested with a combination of parked and moving vehicles. An additional vehicle parking area is needed to accommodate for congestion and safety related risks. The project scope is to expand an existing fenced area adjacent to the rail yard to accommodate for congestion and safety related risks as military equipment arrives for training exercises. This area will require security fencing and overhead lights in order to meet standard Army security in accordance with Army Regulation (AR) 420–1. Fencing allows personnel to monitor activity near the vehicles, and the overhead lighting provides additional safety and security at night.

The proposed undertaking contains three actions necessary to construct an equipment holding yard and renovate other existing facilities to improve field maintenance capabilities at the PCMS. The actions within the undertaking will serve to provide adequate facilities to store, secure, and maintain equipment at the PCMS to better support units from Fort Carson conduct military training missions. The undertaking includes the necessary infrastructure improvements for the facilities involved, such as utility and communication connectivity. Reference Enclosure 1 for locations of the projects detailed below.

Project 1 – Relocate Base Operations Equipment Area:

This project consists of a 60,000 square foot (SF) area to be constructed to the south of the existing PCMS storage and maintenance area (used for non-military equipment and vehicles). The new area will be graveled and secured with 700 linear feet (LF) of fencing. Two security lights will be installed. Upon completion, the existing DPW storage yard will be cleared and all equipment and supplies relocated to the new proposed location.

Project 2 – Equipment Holding Yard Construction:

This project is to construct an 80,000 SF secured holding yard adjacent to the existing DPW storage yard, either to the north (Option 1) or to the west (Option 2). The new yard area will be combined with the existing yard to create the holding area for military vehicles during training exercises. The entire area will be graveled and fenced (800 LF of new fencing and 120 LF of existing fence repaired). Eight security lights will be installed. The total area is intended to accommodate approximately 480 vehicles.

Project 3 – Renovation of Sprung Buildings (clamshells):

This project includes changes to the interior of the two existing clamshells, constructed in 2010-2011 (CHS#57225), to better accommodate maintenance and repair work on military vehicles and equipment during training events. Additionally, a 20,600 SF concrete slab will be constructed at each building, upon which the clamshell and pad will be fenced (840 LF each) and security lights installed (4 lights per clamshell).

Area of Potential Effects for the Proposed Project

Fort Carson's Cultural Resources Program (CRMP) personnel have completed review of this undertaking. The Area of Potential Effects (APE) shown on the map at Enclosure 1 was established in accordance with 36 CFR 800.16[d], and includes a buffer to accommodate the installation of required utilities and the movement of construction equipment and materials. All project components exist on previously disturbed landforms, and past survey and evaluation projects demonstrate that there are no significant cultural materials within the APE.

Potential for Impacts to Historic Properties

CRMP personnel have made site visits and reviewed all archaeological inventories conducted in and around the APE for the proposed action. Phase I archaeological survey was performed by the University of Denver (DU) in 1983 and 1984 (Andrefsky 1990) and the entire PCMS Cantonment, to include current project area, was resurveyed by the CRMP in 2010 (Miller 2010).

5LA05319: The property known as the Morris Ranch was inventoried and evaluated in 1987 as part of the National Register eligibility work for 49 historic sites on the PCMS (Haynes and Bastian 1987). It was made Officially Not Eligible in 1987, requiring no further management by Fort Carson.

As such, there are no properties eligible for inclusion in the National Register, nor properties with the potential for National Register eligibility, located within the APE, and as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail.

Should potential impacts to any historic properties be identified in the future due to a change in the submitted scope of work, proposed location, or due to activities proposed beyond the scope of this undertaking, additional Section 106 consultation will be initiated as required. In the event that subsurface cultural materials are encountered during any project activity, Fort Carson's Inadvertent Discovery of Archaeological, Cultural, or Paleontological Materials will be implemented and Section 106 consultation initiated.

As a result of this internal evaluation and review, the Fort Carson Cultural Resources Manager (CRM) proposes a determination of "*no historic properties affected*" in accordance with Section 106 (36 CFR 800.4(d)(1)) of the National Historic Preservation Act (NHPA) for the actions proposed for this undertaking.

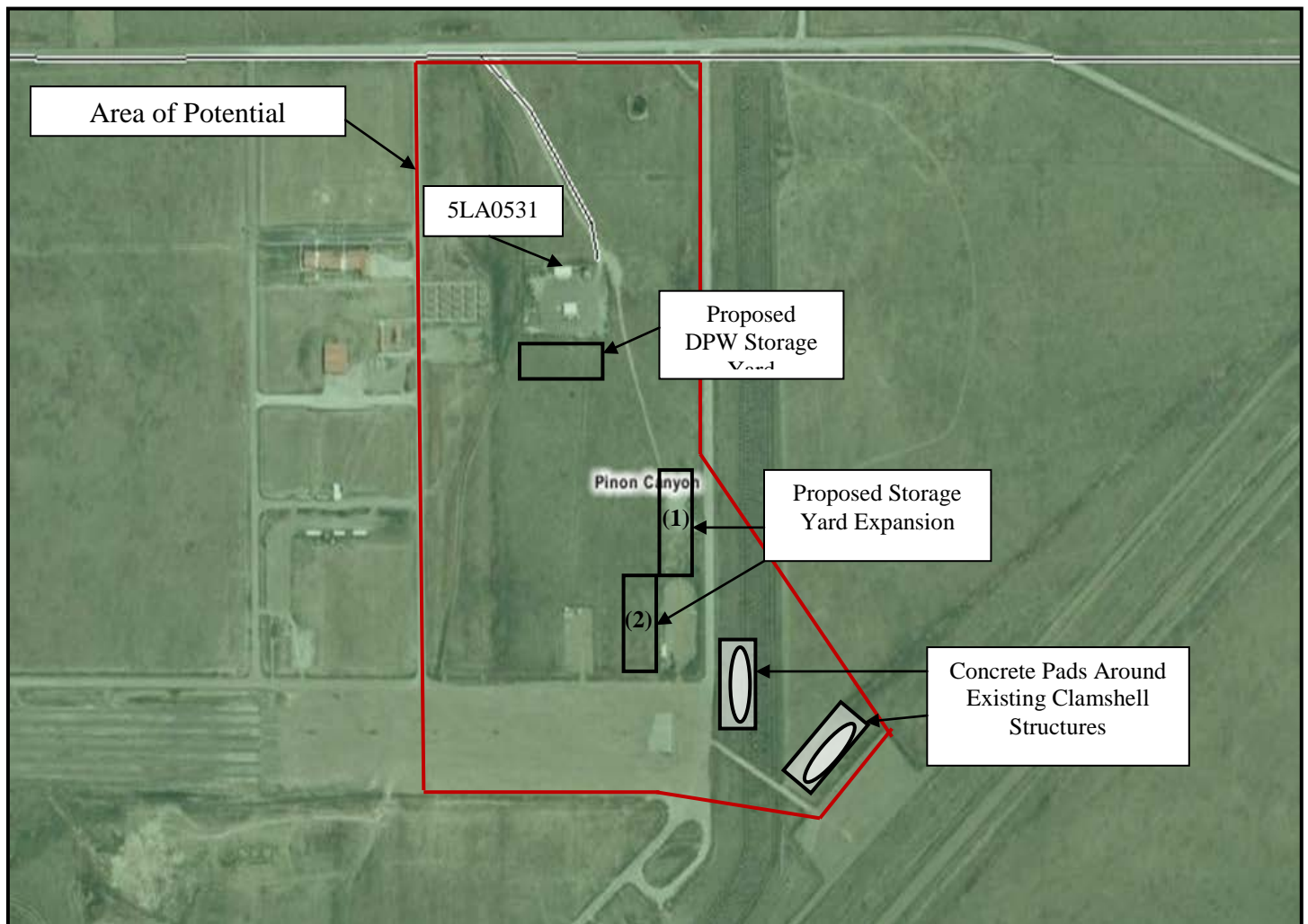
Direct, Indirect, and Cumulative Effects of the Proposed Undertaking:

The cumulative impact to cultural resources consists of past, present, and reasonably foreseeable future actions which affect archeological resources or historic resources or their viewsheds on and near the PCMS. As is true of cultural and historic resources world-wide, impacts to such places are tied to land use; i.e., a particular culture's view of the landscape it occupies and the societal functions that the land fulfills for that group. Each subsequent population or activity that occupies a landscape produces an impact to past land use practices and cultural remains. The foundation of archaeological and anthropological investigation was formed within these tenets of human progress in order to understand the past, present, and future. Landscapes with repeated use tend to contain high site densities, as human populations are drawn to natural resources, such as water, arable land, minerals, and climates hospitable for game and crops. Repeated land use also means re-use of both natural and man-made materials, such as is seen in the remnants of numerous stone structures scattered throughout Colorado.

It is anticipated that this proposed undertaking would not result in significant adverse cumulative impacts to cultural resources due to the historic use of the Cantonment Area and the continued cultural resource management program and policies in place. Procedures and processes that Fort Carson implements to protect cultural resources are discussed in further detail below.

As mandated by federal law, it is current Fort Carson practice to conduct archaeological and historic building inventories and evaluations on resource areas prior to use by impact-generating activities, whether those activities be military training, construction, or other land management actions, such as erosion control and re-seeding efforts. For archaeological sites, once identified, each site is recorded, evaluated for eligibility on the National Register, and the cultural landscape is analyzed. If applicable, significant sites are set apart using a variety of site protection methods. In this way, the information gained ensures that the cultural characteristics and lifeways of those who have come before us is not lost to history, but rather contributes to it. The information acquired is used for future land management, and is also made available to qualified researchers for professional purposes and used in the Cultural Resources Management Program's considerable educational outreach efforts.

Enclosure 1: Map of Proposed PCMS Holding Area Actions



Tyrone Quadrangle
T 29 S, R 60 W, Sections 29 and 30
7.5 Minute Series, NAD 1927

Enclosure 2. References.

Andrefsky, William.

- 1990 *An Introduction to the Archaeology of Pinon Canyon, Southeastern Colorado*. 6 vols. Prepared for National Park Service, Rocky Mountain Regional Office, Denver, Colorado, by Larson-Tibesar Associates, Inc., Laramie, Wyoming, and Centennial Archaeology, Inc., Fort Collins, Colorado.

Haynes, Robin A. and Beverly E. Bastian

- 1987 *Historical Architectural Evaluation of 49 Sites in the Pinon Canyon Maneuver Site (PCMS) for National Register of Historic Places Eligibility, Las Animas County, Colorado*. Prepared for U.S. Department of Interior, National Park Service, Rocky Mountain Regional Office, Denver, Colorado by Gilbert/Commonwealth, Inc., Jackson, Michigan.

Miller, Pamela

- 2010 Memorandum for Record: 2010 Resurvey of PCMS Cantonment Area (CF2010-010). Fort Carson Cultural Resources Management Program Document.

Enclosure 2: Comment Letters from the Otero County Commissioners and Colorado Preservation, Inc.



Keith Goodwin - Commissioner Dist. 1
Kevin Karney - Commissioner Dist. 2
Jim Baldwin - Commissioner Dist. 3
Michael L. Nicklos - County Attorney
Jean Hinkle - County Administrator

Office of the Commissioners

April 15, 2013

Department of the Army
DPW Environmental Division
ATTN: Pamela Miller, Cultural Resources Manager
NEPA and Cultural Management Branch
1626 Evans Street, BLDG 1219
Fort Carson, Colorado 80913

RE: Section 106 Consultation for Proposed Actions Related to Equipment Storage and Holding Areas on the Pinon Canyon Maneuver Site (PCMS)

Dear Ms. Miller:

The Otero County Board of Commissioners in consultation with the Otero County Historic Preservation Board has reviewed the letter and information received from the Fort Carson Cultural Resource Management staff concerning the proposed project related to equipment storage and holding areas at the PCMS.

We agree that this action does constitute an undertaking in accordance with Section 106 (CFR 800.16[y]). As such, it is the responsibility of Fort Carson/PCMS to insure that historic resources will not be adversely affected by any actions related to the undertaking.

The proposed undertaking encompasses three distinct projects. Project 1 is relocation and additions to the Base Operations Equipment Area; Project 2 is the construction of an Equipment Holding Yard to accommodate 480 vehicles; and Project 3 includes renovations to two existing clamshell buildings which were built in 2010-2011. The Army also has prepared a draft Environmental Assessment (EA) for this project. Based upon the information provided in the Section 106 consultation and the EA, we do not concur with the army's determination of no adverse effect. Specifically, we have the following concerns:

- We do not agree with the Area of Potential Effect (APE) defined by the Army. As identified, the APE is limited to the area where the equipment areas and clamshells will

be located, with a buffer surrounding these areas to allow for the movement of construction equipment and the installation of utilities. An APE is distinct from the project area; and it must take into consideration both direct and indirect effects, including visual and atmospheric. Because of the proximity of the Santa Fe Trail to the cantonment project area, it should be included in the APE. Visibility in the area regularly exceeds ten miles, therefore the army's statement is invalid that "as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail."

- Per Section 800.2 of 36 CFR Part 800, parties with a demonstrated interest in an undertaking, or its effect on historic properties should be included in the consultation process. Why weren't the National Trails Office of the National Park Service, and the Santa Fe Trail Association invited to be consulting parties?
- The EA associated with this project states that there are potential impacts to natural and cultural resources during construction. Why did the army assume that potential impacts would be limited to the actual period of construction?
- According to the information provided by the army, a total of eighteen overhead security lights will be installed. Although there currently are overhead lights at the cantonment area, the installation of eighteen high profile objects will add to the cumulative negative impact on the surrounding viewshed, including that of the Santa Fe Trail. Why was this not considered?
- The addition of eighteen high-power security lights will have a significant negative impact on the night sky. While there currently are scattered lights on the surrounding private lands, the majority of visible lights are within the PCMS. Because of the terrain, and the minimal development in the surrounding area, the lights at the PCMS already have a significant negative impact on the Santa Fe Trail and the surrounding cultural landscape. Why wasn't the APE defined to encompass the surrounding area which will be impacted by the proposed security lights? Why weren't the cumulative impact of these lights considered?
- The Section 106 information provided states that the additional parking and holding area is necessary to accommodate congestion and safety risks when equipment and vehicles are being moved into and out of the PCMS for training exercises. However, the draft EA for this project states "The 4th Infantry Division (ID) is currently considering ways to avoid millions in rail costs by storing some mechanized equipment at the PCMS, and rotating crews for training, rather than continue the practice of multiple rail shipments back and forth between Fort Carson and the PCMS for each mechanized training event." (Draft EA, Section 3.3) Why is the information provided in these two documents inconsistent; and why weren't the potential direct, indirect and cumulative impacts of this Proposed Action considered in the Section 106 review?

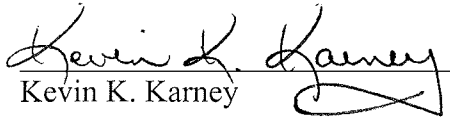
Because of the inadequate identification of the APE; the exclusion of known stakeholders from consultation for this undertaking; and the lack of consideration for direct, indirect and cumulative impacts to the Santa Fe Trail and surrounding cultural landscape, we strongly disagree with their determination of no adverse effect.

If you have any questions please contact Jean Hinkle, Otero County Administrator at 719-383-3000 or jhinkle@oterogov.org.

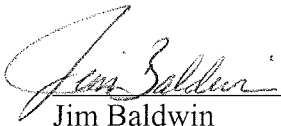
Sincerely,



Keith Goodwin, Chairman



Kevin K. Karney



Jim Baldwin

cc: Amy Pallante, Section 106 Compliance Officer at the State Historic Preservation Office



RECEIVED APR 18 2013

April 16, 2013

Carlos Rivero-deAguilar
Chief, Environmental Division
1626 Evans Street
Building 1219
Fort Carson, CO 80913

Mr. Rivero-deAguilar,

Colorado Preservation, Inc. has reviewed the Section 106 consultation for proposed actions related to equipment storage and holding areas on the Pinon Canyon Maneuver Site and has the following comments and concerns regarding the Area of Potential Effect (APE).

The (APE) is defined by three projects: Project 1-Relocate Base Operations Equipment Area, Project 2-Equipment Holding Yard Construction, and Project 3-Renovation of Sprung Buildings. Colorado Preservation, Inc. does not agree that the (APE) will be limited to those project areas. We are concerned that the Santa Fe Trail will be visually adversely effected by the project construction due to its proximity to the site. Because of the flat landscape of the area, visibility is great; therefore, we believe that the Army's statement is invalid when stated that, "as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail."

Colorado Preservation, Inc. believes that the identification of the (APE) is inadequate, and that the construction of these three projects will result in adverse effects to the Santa Fe Trail and surrounding cultural landscape. It is our recommendation that we disagree with the Army's determination of no adverse effect.

Please do not hesitate to contact me with any questions or concerns.

Sincerely,

Rachel Parris
Programs Coordinator
Colorado Preservation, Inc.

Enclosure 3: Fort Carson's Response to Comments from the Otero County Commissioners and Colorado Preservation, Inc.

Response to comments received from the Otero County Commissioners, dated April 15, 2013, related to equipment storage and holding areas on the Pinon Canyon Maneuver Site (PCMS). This is also being provided to Colorado Preservation, Inc., as they expressed the same concerns in their comment letter, received April 18, 2013.

Comment #1: We do not agree with the Area of Potential Effect (APE) defined by the Army. As identified, the APE is limited to the area where the equipment areas and clamshells will be located, with a buffer surrounding these areas to allow for the movement of construction equipment and the installation of utilities. An APE is distinct from the project area; and it must take into consideration both direct and indirect effects, including visual and atmospheric. Because of the proximity of the Santa Fe Trail to the cantonment project area, it should be included in the APE. Visibility in the area regularly exceeds ten miles, therefore the Army's statement is invalid that "as all project components will be located adjacent to existing facilities, and are contained within the PCMS Cantonment area, there will be no impact, visually or physically, to other types of historic resources such as the Santa Fe Trail."

Response: Although the Army appreciates the overall historical significance of the Santa Fe Trail, the route segment that is located near the PCMS cantonment area is not a "historic property" as defined by 36 CFR 800.16(l)(1), nor is it a National Historic Landmark (NHL) as defined by 36 CFR 800.16(p). In Colorado, only five historic resources associated with the Santa Fe Trail are included in the National Register of Historic Places (NRHP), and two of those five are NHLs, none of which are located near the PCMS. Only one route segment (7.88 miles from Hoehne to Model) and nine other historic resources are considered "high potential sites" as defined by the National Trails System Act, which means they may be certified (or are certified) as an official component of the Santa Fe National Historic Trail. This certification does not equate to eligibility under the NHPA, and thus would not afford this segment consideration for adverse effects appropriate to a "historic property." For this reason, the APE for the Holding Area project was contained within the PCMS cantonment boundaries and did not extend to or west of Highway 350.

Comment #2: Per 36 CFR 800.2 of 36 CFR Part 800, parties with a demonstrated interest in an undertaking, or its effect on historic properties should be included in the consultation process. Why weren't the National Trails Office of the National Park Service, and the Santa Fe Trail Association invited to be consulting parties?

Response: The National Trails Office of the National Park Service (NPS) or the Santa Fe Trail Association were not included as interested parties for this project as the Santa Fe Trail is not within the established APE, and this segment is not considered a historic property, as discussed above. However, as the Santa Fe Trail is a national historic trail, we have furnished a copy of this response, the Environmental Assessment (EA) for this project, and other supporting documentation to both entities.

Comment #3: The EA associated with this project states that there are potential impacts to natural and cultural resources during construction. Why did the Army assume that potential impacts would be limited to the actual period of construction?

Response: The proposed action is to construct new equipment storage areas and to make improvements to the existing clamshells. Potential impacts to natural and cultural resources are limited to the actual period of construction as there is no change to the current operation and maintenance activities on the PCMS and within the established APE. As stated in our undertaking review, in the event that subsurface cultural materials are encountered during any project activity, Fort Carson's Inadvertent Discovery of Archaeological, Cultural or Paleontological Materials Standard Operating Procedures will be implemented and Section 106 consultation initiated as appropriate.

Comment #4: According to the information provided by the Army, a total of eighteen overhead security lights will be installed. Although there currently are overhead lights at the cantonment area, the installation of eighteen high profile objects will add to the cumulative negative impact on the surrounding viewshed, including that of the Santa Fe Trail. Why was this not considered?

Response: The security lights included in the scope of this project are not considered high profile, as they will be the same height (30') and diameter as the current "street light" poles on the PCMS. These light poles will not exceed the height of the existing clamshell buildings. At present, safety and security concerns within the cantonment area dictate that five 30' 70-watt high pressure sodium security lights and eight 70-watt floodlights attached to various cantonment buildings are illuminated each night. When troops are utilizing the billets, an additional eighteen 30' 150-watt high pressure sodium lights are turned on. During large scale training exercises, when the railhead and current staging area are in use, there are seventeen 150' security lights that are used. Each of these contains eight 1000-watt halogen bulbs. The eighteen security lights included in the proposed action will only be needed during training events when the additional security lights and/or halogens will already be in use, thus eclipsed by the more powerful security lights. As such, the proposed action will not increase the current level of artificial light in the night sky over the PCMS area.

Comment #5: The addition of eighteen high-power security lights will have a significant negative impact on the night sky. While there currently are scattered lights on the surrounding lands, the majority of visible lights are within the PCMS. Because of the terrain, and the minimal development in the surrounding areas, the lights at the PCMS already have a significant negative impact on the Santa Fe Trail and the surrounding cultural landscape. Why wasn't APE defined to encompass the surrounding area that will be impacted by the proposed security lights? Why were the cumulative impacts of these lights considered?

Response: Please see the response to Comment #4 above.

Comment #6: The Section 106 information provided states that the additional parking area and holding area is necessary to accommodate congestion and safety risks when

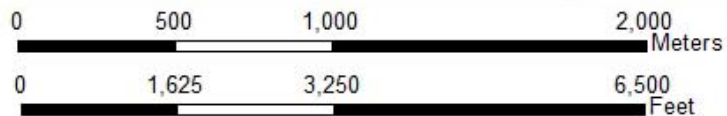
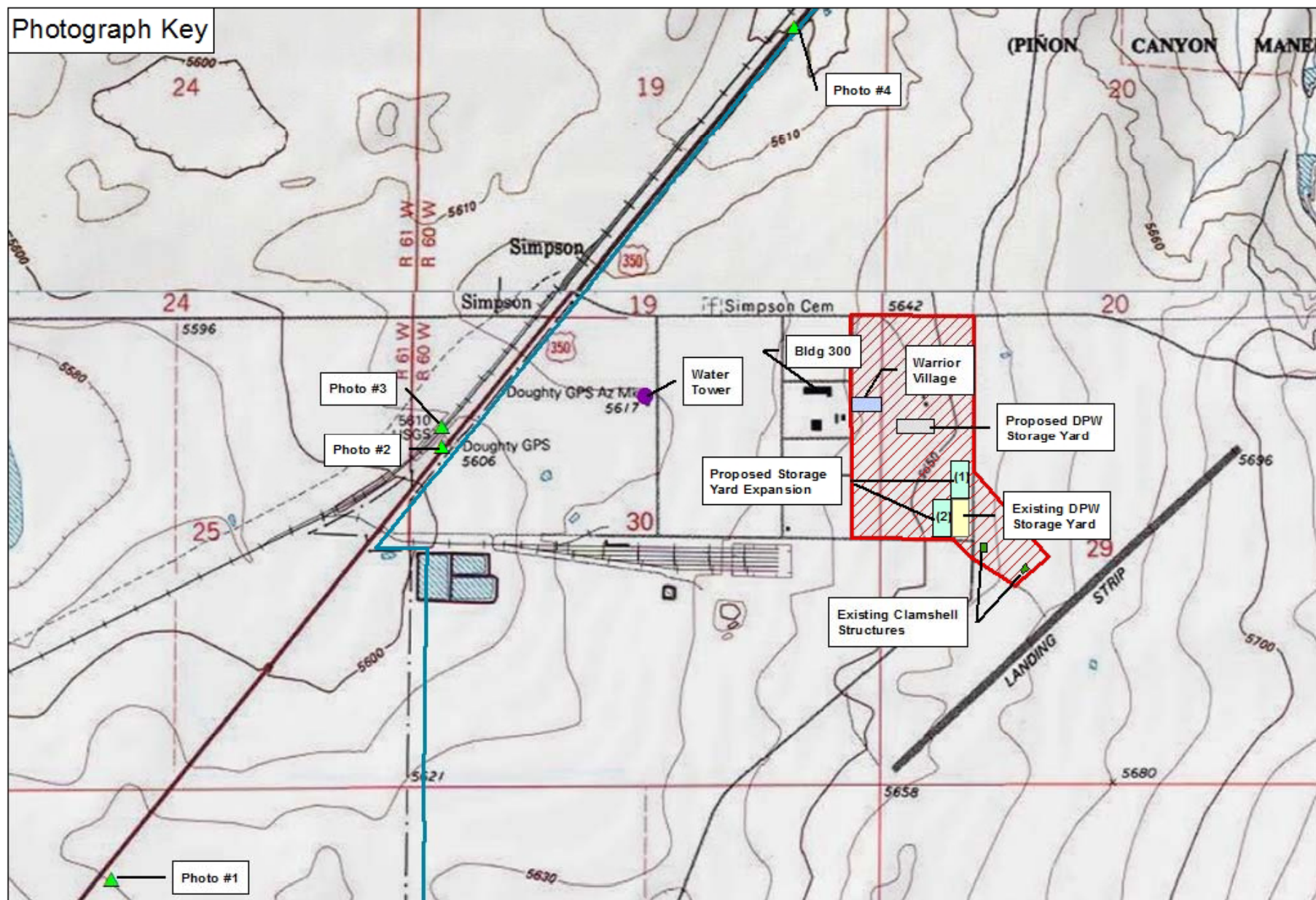
equipment and vehicles are being moved into and out of the PCMS for training exercises. However, the draft EA for this project states “The 4th Infantry Division (ID) is currently considering ways to avoid millions in rail costs by storing some mechanized equipment at the PCMS, and rotating crews for training, rather than continue the practice of multiple rail shipments back and forth between Fort Carson and the PCMS for each mechanized training event.” (Draft EA, Section 3.3) Why is the information provided in these two documents inconsistent; and why weren’t the potential direct, indirect and cumulative impacts of this Proposed Action considered in the Section 106 review?

Response: The information in the two documents is not inconsistent. The proposed action is intended to alleviate current congestion and safety issues, as well as to accommodate the future possibility of permanently staging some equipment at the PCMS. If the Army proposes permanent equipment staging at a later time, additional NEPA and appropriate Section 106 will be conducted. As stated in our undertaking review, there are no historic properties within the APE that will be subjected to direct, indirect, or cumulative effects from the proposed action.

Enclosure 4

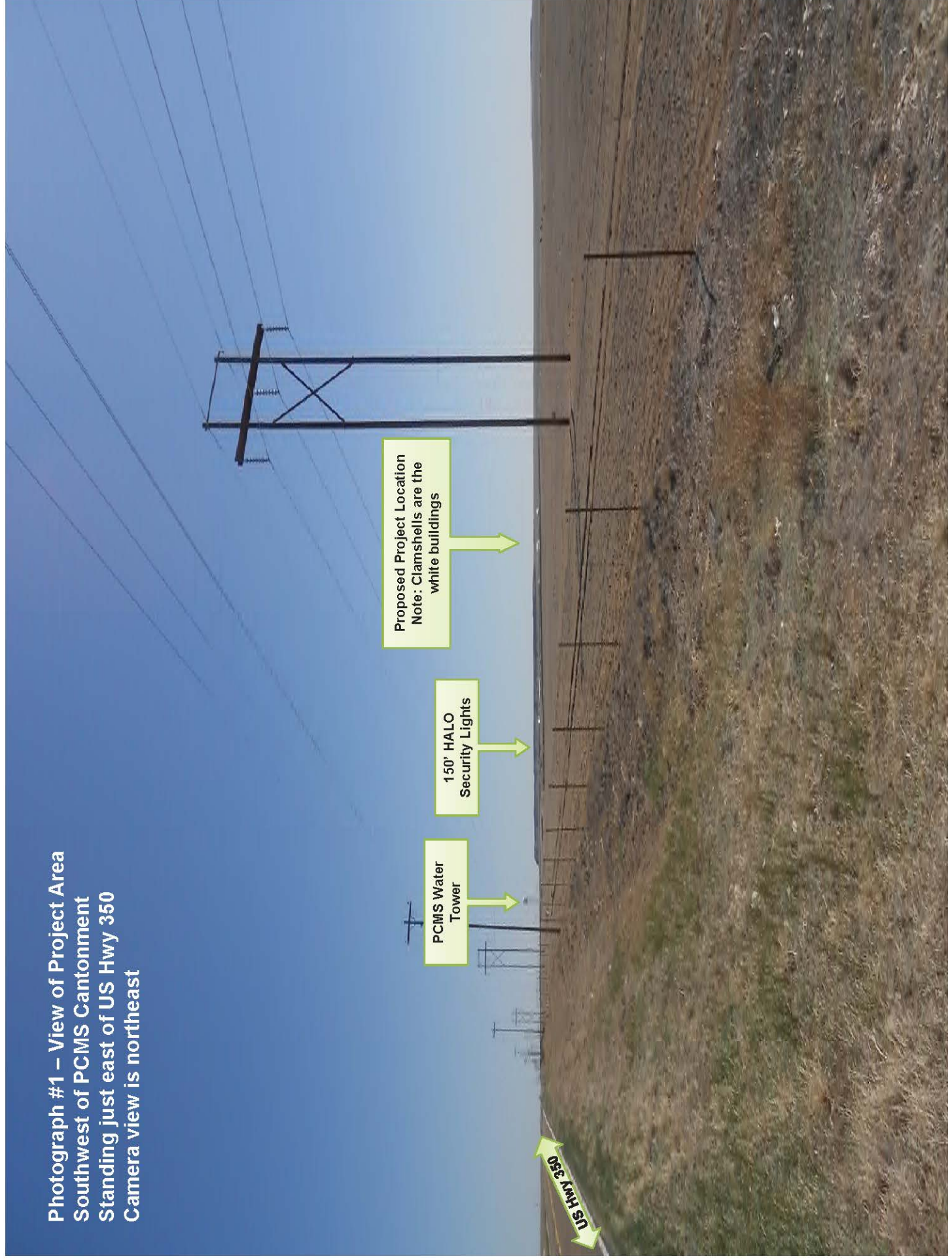
Photographs

Photograph Key



Tyrone Quadrangle
T 29S, R 60W, Sections 29 and 30
7.5' Series, NAD 1927

Photograph #1 – View of Project Area
Southwest of PCMS Cantonment
Standing just east of US Hwy 350
Camera view is northeast



Photograph #2 – View of the Project Area
Directly west of PCMS Cantonment
Standing just west of US Hwy 350
Camera view is east



Photograph #3 – View of the Project Area
Directly west of PCMS Cantonment
Standing on the Atchison, Topeka and Santa Fe Railroad
Camera view is east



Photograph #4 – View of Project Area
North of PCMS Cantonment
Standing just east of US Hwy 350
Camera view is south

