Fort Carson Combat Aviation Brigade Stationing Implementation

Final Environmental Assessment and Finding of No Significant Impact

Prepared by:

U.S. Army Environmental Command

and

U.S. Army Garrison Fort Carson, CO









Assisted by:

Potomac-Hudson Engineering, Inc.
Gaithersburg, MD

July 2012

FINDING OF NO SIGNIFICANT IMPACT (FNSI)

Fort Carson, Colorado

Combat Aviation Brigade (CAB) Stationing Implementation

1 PURPOSE AND NEED

The Installation, which encompasses Fort Carson and Piñon Canyon Maneuver Site (PCMS), must take those actions necessary to support the CAB stationing decision made at Headquarters, Department of the Army (HQDA). The purpose and need of the proposed action is to implement effectively and efficiently the stationing decision, to include ensuring adequate facilities requirements are met. The Installation must provide for the training readiness, deployment, administrative functions, and Soldier and Family Quality of Life elements for those assigned to and supporting the incoming CAB that is to be home-stationed at Fort Carson.

2 ALTERNATIVES CONSIDERED

2.1 No Action Alternative

In summary, under the No Action Alternative, the CAB stationing decision would not be implemented. Force structure, assigned personnel and equipment, and training operations would include construction and other changes associated with past Grow the Army and transformation decisions and activities; however, no CAB-related construction or renovation would occur. As explained in Section 2.2.1 of the environmental assessment (EA), the Record of Decision for the Realignment, Growth, and Stationing of Army Aviation Assets, signed by the Assistant Deputy Chief of Staff, G-3/5/7, on March 25, 2011 (hereinafter referred to as the 2011 *CAB Stationing ROD*) documented the Army's decision to station a CAB at the Installation; therefore, the No Action Alternative was included in this document only to provide baseline conditions and a benchmark from which to compare environmental impacts of the proposed action.

2.2 Proposed Action

As part of the proposed action, Fort Carson would construct garrison support facilities for the CAB at the Wilderness Road Complex (WRC) construction site off of Wilderness Road just west of Butts Army Airfield (BAAF). Several hundred acres of ground disturbance and demolition/renovation/construction at the BAAF site would be required to construct facilities to support approximately 2,700 Soldiers, 113 helicopters, between 600 and 700 wheeled vehicles and trucks, and other associated support equipment. Minor construction of concrete helicopter pads on the existing gravel-surfaced airfield parking apron would occur at the PCMS Combat Assault Landing Strip. The proposed action includes CAB training activities at Fort Carson and PCMS and CAB maneuvers and support of air-ground integrated maneuvers at Fort Carson and PCMS. The proposed action is anticipated to also result in the 2,700 CAB Soldiers being accompanied by slightly more than 4,000 Family members.

3 ALTERNATIVES CONSIDERED AND ELIMINATED FROM DETAILED STUDY

The alternatives considered but dismissed were to train the CAB at other locations, to construct facilities for the CAB at a different location on Fort Carson, and to only use existing or renovated facilities for the CAB on Fort Carson. For the first, studying an alternative to conduct regular

installation-level training at locations other than Fort Carson and PCMS would essentially constitute re-examining the decision documented in the 2011 *CAB Stationing ROD*, and, therefore, was not within the scope of the EA. For the second, the February 2009 *Final Environmental Impact Statement for Implementation of Fort Carson Grow the Army Stationing Decisions*, herein referred to as the 2009 *Fort Carson Grow the Army FEIS*, already analyzed alternate locations for construction of CAB facilities and determined that the Operational Readiness Training Center (ORTC) area, since re-named the WRC, and BAAF were the only locations for CAB facilities that met the CAB stationing implementation screening criteria. For the third, using only existing facilities or a combination of existing/renovated facilities would not accommodate the requirements of CAB Soldiers and units as insufficient facilities currently exist to support CAB stationing implementation.

4 PUBLIC REVIEW

Pursuant to Title 32 CFR Part 651.14(b), the Army must make an EA and Draft FNSI available to the public for review and comment for a minimum of 30 days prior to a final decision. To encourage public participation and input, the Army adopted an "enhanced" National Environmental Policy Act (NEPA) process for this proposed action. The Army included an extra 30-day public comment period and held public meetings to allow the public and interested stakeholders to comment upon and discuss the Draft EA, in addition to the minimum 30-day public comment period required by Army regulation for review of the Final EA and Draft FNSI, as described below.

4.1 Draft EA Public Comment Period

The Draft EA was made available for a 30-day public comment period ending February 2, 2012. The documents were posted on the World Wide Web, with links to each document provided at http://aec.army.mil/usaec/nepa/topics00.html. Printed copies of the documents were made available for viewing during the applicable 30-day public comment period at twelve local libraries. During the review period for the Draft EA, public meetings inviting comments were held on January 23, 24, and 26, 2012 in Trinidad, La Junta, and Colorado Springs, respectively. Interested parties were invited to review and comment on the documents within 30 days of the respective publication. Commenters were asked to send comments via email, regular mail, and/or telephone. Comments by the public, government agencies, other appropriate entities, and stakeholders were fully considered in the drafting of the Final EA and FNSI.

4.2 Final EA and Draft Finding of No Significant Impact

The Final EA and the Draft FNSI were made available for public comment during a second 30-day public comment period ending on June 14, 2012. The public was invited to send comments by e-mail to USARMY.JBSA.AEC.MBX@mail.mil or mail to: Public Comments USAEC, Attn: IMPA – AE (Kropp), 2450 Connell Road (Building 2264), Fort Sam Houston, Texas 78234-7664. For questions regarding comment submittals, interested parties were invited to call (210) 466-1590.

4.3 Agency Consultations

In addition to encouraging involvement by the general public, the Installation coordinated and/or consulted with, and received input from, various Federal, state, and county agencies and entities, as well as Tribes. Correspondence with interested governmental agencies is contained in Appendix B of the Final EA. As noted in Section 4.8 of the Final EA, while consultation on proposed construction activities is complete, Section 106 consultation with the Colorado State Historic Preservation Officer (COSHPO), Tribes, and other consulting parties on CAB training

operations is ongoing. However, the areas of concern have been sufficiently narrowed as to anticipate that cultural and historic impacts will be less than significant, and will be adequately addressed through continuing consultation. One of the concerns raised by the COSHPO at the start of consultation on CAB training operations was the potential impact of helicopter rotor downwash (the "wind" generated at ground level by a helicopter's rotors during overflight) on known and unknown cultural resource sites located both on and off of the Installation. The Army has recently provided rotor downwash data to the COSHPO which will enable objective assessment of potential impacts and help identify appropriate safeguards. The Army anticipates that such impacts will be extremely minor and readily mitigated, especially considering the lack of observable negative impacts on cultural resources from historic helicopter operations. We have already proposed a modification to Route Hawk, the long-established low-level training route, in order to diminish potential impacts where it crosses the Santa Fe Trail. Additional adjustments and mitigation techniques will be considered, based on continued consultation, observation, assessment and feedback from interested and potentially impacted parties. The Army will continue its consultation with the COSHPO, Tribes, and the other consulting parties on CAB training operations.

5 ENVIRONMENTAL CONSEQUENCES

Potential direct, indirect, and cumulative impacts of the proposed action and No Action Alternative were identified in the analysis and public comment process during the development and finalization of the EA. The Final EA analyzed the effects of the proposed action and alternatives on the following Valued Environmental Components (VECs): land use, air quality and greenhouse gas (GHG), noise, geology and soils, water resources, biological resources (including special status species and wetlands), cultural resources, socioeconomics, traffic and transportation, airspace, utilities, and hazardous and toxic substances. The Final EA also identified mitigation measures to address potential adverse impacts from implementation of the proposed action.

Impacts to air quality and soils at Fort Carson and to soils at PCMS are expected to be significant, but mitigable to less than significant. Cumulative impacts of implementing the proposed action along with other past, present, and foreseeable future actions are expected to be significant, but mitigable to less than significant, for air quality, soils, and biological resources at Fort Carson, and for soils, water resources, and biological resources at PCMS. Potential impacts of the proposed action could include the generation of fugitive dust and other pollutants during construction and training, increase in soil erosion and stormwater runoff during construction and training, loss of or harm to vegetation and a reduction in the acreage of native plant communities, and loss of or harm to wildlife and wildlife habitat as a result of construction and training.

6 MITIGATION MEASURES

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 best management practices (BMPs) and environmental management programs to ensure environmental compliance, stewardship, and sustainability of those areas potentially impacted by CAB stationing implementation. BMPs include, for example, Army aviators abiding by noise abatement and minimum altitude restrictions in noise sensitive areas, as outlined in applicable Federal and Army aviation regulations. The Installation would continue to implement and

monitor all existing mitigation measures, BMPs, and environmental management programs to minimize the impacts of CAB stationing implementation.

Mitigation measures and BMPs identified as an Army requirement in the 2011 *CAB Stationing ROD* were carried forward in the Final EA for CAB Stationing Implementation and are included in Tables 3.3-1 and 3.3-2 of the EA. I adopt and incorporate those measures in my decision here. Many of those measures are ongoing in nature. Completed measures are detailed below.

- ***Fort Carson Utilities.*** The measure was "Conduct a study evaluating the capacity of sanitary sewer lines and lift stations providing service for CAB infrastructure." This study was completed in February 2011 and appropriate recommendations were incorporated into the CAB Stationing Implementation EA.
- ***Fort Carson Utilities.*** The measure was "Continue to implement recommendations of the 2006 Wastewater Treatment Plant (WWTP) Capacity Evaluation, which includes aeration system and equalization basin channel improvements." The recommended upgrades from the 2006 WWTP Capacity Evaluation have been completed.
- ***Fort Carson and PCMS Biological Resources.*** The measure was: "Study the impacts of aircraft training on breeding raptor populations and develop and implement mitigation strategies based on results, as appropriate." After further review, it was determined additional studies were in fact not necessary. The Installation has a current process in place by which eagle nesting areas are tracked and active nests (eyries) are identified. Active nests are protected within a 0.5-mile (0.8-kilometer) radius in which aviation operations are prohibited. Also prohibited are contractor, construction, and recreation activities.

The Installation also proposes to adopt and monitor the following specific, additional measures at Fort Carson listed in Table 1 below.

Table 1. New Mitigation and Best Management Practices Commitments for CAB Stationing Implementation at the Installation

Impact by Resource	Proposed Additional Mitigation and BMPs
Air Quality and GHG at Fort Carson	
• Operation of additional combustion sources has the potential to result in impacts to air quality emissions from proposed stationary sources.	• Ensure internal combustion units (e.g., emergency generators) purchased for CAB facilities and equipment meet the Emission Limit Tier Standard as defined by New Source Performance Standards IIII, specifically Subpart JJJJ for newly purchased spark ignition and Subpart Dc for newly purchased boilers.
Utilities at Fort Carson	
• Increased energy consumption due to construction of additional facilities.	• Develop a central energy plant to replace individual heating and cooling units at every CAB facility structure with a centrally controlled and balanced plant. If economically feasible, develop the central energy plant, which would initially use natural gas for fuel, so that it could be transitioned to run alternate fuels in the future.

Table 1. New Mitigation and Best Management Practices Commitments for CAB Stationing Implementation at the Installation (Continued)

Cultural Resources at PCMS	
• Potential impact to the Santa Fe Trail from increased low-level flight operations training along Route Hawk.	• Modify Route Hawk by shifting southward the H7 to H8 leg of the route (as depicted in the 2006 map of Route Hawk), a leg which runs approximately parallel and in close proximity to the Santa Fe Trail, US 350, and the PCMS boundary, such that the majority of that segment of the route is flown over PCMS.

7 CONCLUSION AND FINDING

The CAB Stationing Implementation EA was prepared pursuant to the Army's NEPA regulation, Title 32 Code of Federal Regulations (CFR) Part 651, and U.S. Council on Environmental Quality (CEQ) regulations (Title 40 CFR Parts 1500-1508) for implementing the procedural requirements of NEPA. Based on the analysis contained in the EA and the Army's intent to follow prescribed regulations, acquire required permits, and implement the mitigation measures identified above, the Army has determined that the proposed action and the No Action Alternative will have no significant direct, indirect, or cumulative adverse effects on the human or natural environment. Therefore, based on review of the EA, I conclude that the proposed action is not a major Federal action that would significantly affect the quality of the environment within the meaning of Section 102(2)(c) of NEPA.

Accordingly, no new or supplemental environmental impact statement is required. I have reviewed the mitigation measures detailed in the 2011 CAB Stationing ROD and the additional measures identified above and I adopt and incorporate such measures into my decision here. With this finding, I approve selection of the proposed action and the measures.

David L. Grosso Date: 11 JULY 2012

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

This Page Intentionally Left Blank.

ENVIRONMENTAL ASSESSMENT
COMBAT AVIATION BRIGADE
STATIONING IMPLEMENTATION AT FORT CARSON

Prepared By:

US Army Environmental Command
and
US Army Garrison, Fort Carson

Reviewed By:

Directorate of Public Works
Staff Judge Advocate
Fort Carson, Colorado

Submitted By:

HAL ALGUIRE
Public Works, Director
Fort Carson, CO 80913

9 July 2012
Date

Approved By:

DAVID L.GROSSO
COL, SF
Garrison Commander
Fort Carson, CO 80913

11 JUL 2012
Date

This Page Intentionally Left Blank.

TABLE OF CONTENTS

1 PURPOSE, NEED, AND SCOPE 1-1
1.1 Purpose and Need 1-1
1.2 Scope of the Analysis 1-1
1.3 Related Environmental Documentation 1-4
1.4 Public Involvement 1-4
1.5 Agency and Tribal Coordination 1-5
1.6 Decision to be Supported 1-5
2 PROPOSED ACTION, ALTERNATIVES, AND SCREENING CRITERIA 2-1
2.1 Screening Criteria 2-1
2.1.1 Military Construction Planning Considerations 2-1
2.1.2 Training Considerations 2-1
2.1.3 Land Constraints 2-1
2.2 Proposed Action and Alternatives 2-1
2.2.1 No Action 2-2
2.2.2 Proposed Action: CAB Stationing Implementation with Construction of Support Facilities at the Wilderness Road Complex and within the Butts Army Airfield 2-2
2.2.3 Alternatives Considered but Dismissed 2-4
2.2.3.1 Train CAB at Other Locations 2-4
2.2.3.2 Construct Facilities for the CAB at a Different Location on Fort Carson 2-4
2.2.3.3 Use Existing/Renovated Facilities for the CAB on Fort Carson 2-4
2.3 Description of Proposed Action 2-4
2.3.1 Proposed Action Components 2-4
2.3.2 CAB Mission and Force Structure 2-5
2.3.3 CAB Training and Ranges 2-7
2.3.3.1 Introduction to Brigade Training 2-7
2.3.3.2 Individual/Crew Qualification Ranges 2-8
2.3.3.3 Aerial Gunnery and Integrated Aviation/Ground Maneuver Qualification Ranges 2-8
2.3.3.4 Live-fire Training 2-9
2.3.3.5 Maneuver and Flight Operations Training 2-9
2.3.4 Garrison Construction 2-13
3 SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND PROPOSED MITIGATION 3-1
3.1 Valued Environmental Components and Focusing the Analyses 3-1
3.2 Summary of Environmental Consequences by VEC 3-1
3.2.1 Impacts of Alternatives 3-1
3.2.2 Cumulative Effects 3-2
3.3 Proposed Mitigation 3-4
4 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES 4-1

4.1 Introduction 4-1
4.2 Land Use 4.2-1
4.2.1 Affected Environment 4.2-1
4.2.1.1 Fort Carson 4.2-1
4.2.1.1.1 Location and Size 4.2-1
4.2.1.1.2 On-Post Land Use 4.2-1
4.2.1.1.3 Surrounding Off-Post Land Uses/Regional Land Use Planning 4.2-1
4.2.1.2 Piñon Canyon Maneuver Site 4.2-1
4.2.1.2.1 Location and Size 4.2-1
4.2.1.2.2 On-Post Land Use/Surrounding Off-Post Land Use/Regional Land Use Planning 4.2-2
4.2.2 Environmental Consequences 4.2-2
4.2.2.1 No Action 4.2-2
4.2.2.2 Proposed Action 4.2-2
4.2.2.3 Cumulative Effects 4.2-3
4.3 Air Quality and Greenhouse Gases 4.3-1
4.3.1 Affected Environment 4.3-1
4.3.1.1 Fort Carson and Piñon Canyon Maneuver Site 4.3-1
4.3.1.1.1 National Ambient Air Quality Standards and Attainment Status 4.3-1
4.3.1.1.2 Pollutants and Sources 4.3-1
4.3.1.1.3 Permits, Management Plans, and Best Management Practices 4.3-1
4.3.1.1.4 Climate and Greenhouse Gases 4.3-2
4.3.2 Environmental Consequences 4.3-2
4.3.2.1 No Action 4.3-2
4.3.2.2 Proposed Action 4.3-3
4.3.2.3 Cumulative Effects 4.3-3
4.4 Noise 4.4-1
4.4.1 Affected Environment 4.4-1
4.4.1.1 Fort Carson 4.4-1
4.4.1.1.1 Aviation Noise 4.4-1
4.4.1.1.2 Large-caliber Live-fire Noise 4.4-3
4.4.1.2 Piñon Canyon Maneuver Site 4.4-3
4.4.2 Environmental Consequences 4.4-3
4.4.2.1 No Action 4.4-3
4.4.2.2 Proposed Action 4.4-3
4.4.2.2.1 Small Arms Ranges 4.4-5
4.4.2.2.2 Large-caliber Live-fire Noise 4.4-5
4.4.2.2.3 Aviation Activity 4.4-5
4.4.2.2.4 Helicopter Overflights 4.4-7
4.4.2.2.5 Wilderness Road Complex 4.4-7
4.4.2.3 Cumulative Effects 4.4-7
4.5 Geology and Soils 4.5-1
4.5.1 Affected Environment 4.5-1

4.5.1.1 Fort Carson 4.5-1
4.5.1.1.1 Geology 4.5-1
4.5.1.1.2 Soils 4.5-1
4.5.1.2 Piñon Canyon Maneuver Site 4.5-2
4.5.1.2.1 Geology 4.5-2
4.5.1.2.2 Soils 4.5-3
4.5.2 Environmental Consequences 4.5-3
4.5.2.1 No Action 4.5-3
4.5.2.2 Proposed Action 4.5-3
4.5.2.3 Cumulative Effects 4.5-4
4.6 Water Resources 4.6-1
4.6.1 Affected Environment 4.6-1
4.6.1.1 Fort Carson 4.6-1
4.6.1.1.1 Surface Water and Watersheds 4.6-1
4.6.1.1.2 Groundwater 4.6-1
4.6.1.1.3 Floodplains 4.6-1
4.6.1.1.4 Water Rights 4.6-2
4.6.1.2 Piñon Canyon Maneuver Site 4.6-2
4.6.1.2.1 Surface Water and Watersheds 4.6-2
4.6.1.2.2 Groundwater 4.6-2
4.6.1.2.3 Floodplains 4.6-2
4.6.1.2.4 Water Rights 4.6-2
4.6.2 Environmental Consequences 4.6-2
4.6.2.1 No Action 4.6-2
4.6.2.2 Proposed Action 4.6-2
4.6.2.3 Cumulative Effects 4.6-3
4.7 Biological Resources 4.7-1
4.7.1 Affected Environment 4.7-1
4.7.1.1 Fort Carson 4.7-1
4.7.1.1.1 Vegetation and Wildlife, including Threatened and Endangered Species 4.7-1
4.7.1.1.2 Wetlands 4.7-2
4.7.1.2 Piñon Canyon Maneuver Site 4.7-3
4.7.1.2.1 Vegetation and Wildlife, including Threatened and Endangered Species 4.7-3
4.7.1.2.2 Wetlands 4.7-4
4.7.2 Environmental Consequences 4.7-4
4.7.2.1 No Action 4.7-4
4.7.2.2 Proposed Action 4.7-4
4.7.2.3 Cumulative Effects 4.7-7
4.8 Cultural Resources 4.8-1
4.8.1 Affected Environment 4.8-1
4.8.1.1 Fort Carson 4.8-2
4.8.1.2 Piñon Canyon Maneuver Site 4.8-2

4.8.2 Environmental Consequences....4.8-2
4.8.2.1 No Action....4.8-2
4.8.2.2 Proposed Action....4.8-2
4.8.2.2.1 Construction....4.8-2
4.8.2.2.2 CAB Training....4.8-6
4.8.2.3 Cumulative Effects....4.8-7
4.9 Socioeconomics....4.9-1
4.9.1 Affected Environment....4.9-1
4.9.1.1 Fort Carson and Piñon Canyon Maneuver Site....4.9-1
4.9.2 Environmental Consequences....4.9-1
4.9.2.1 No Action....4.9-1
4.9.2.2 Proposed Action....4.9-1
4.9.2.3 Cumulative Effects....4.9-2
4.10 Traffic and Transportation....4.10-1
4.10.1 Affected Environment....4.10-1
4.10.1.1 Fort Carson and Piñon Canyon Maneuver Site....4.10-1
4.10.2 Environmental Consequences....4.10-1
4.10.2.1 No Action....4.10-1
4.10.2.2 Proposed Action....4.10-1
4.10.2.3 Cumulative Effects....4.10-4
4.11 Airspace....4.11-1
4.11.1 Affected Environment....4.11-1
4.11.1.1 Fort Carson and Piñon Canyon Maneuver Site....4.11-1
4.11.2 Environmental Consequences....4.11-6
4.11.2.1 No Action....4.11-6
4.11.2.2 Proposed Action....4.11-6
4.11.2.2.1 Construction....4.11-6
4.11.2.2.2 Operations....4.11-6
4.11.2.3 Cumulative Effects....4.11-8
4.11.2.3.1 Construction....4.11-8
4.11.2.3.2 Operations....4.11-8
4.12 Utilities....4.12-1
4.12.1 Affected Environment....4.12-1
4.12.1.1 Fort Carson....4.12-1
4.12.1.1.1 Potable Water....4.12-1
4.12.1.1.2 Wastewater....4.12-1
4.12.1.1.3 Stormwater....4.12-3
4.12.1.1.4 Solid Waste....4.12-4
4.12.1.1.5 Energy, Heating, and Cooling....4.12-4
4.12.1.2 Piñon Canyon Maneuver Site....4.12-4
4.12.1.2.1 Potable Water....4.12-4
4.12.1.2.2 Wastewater....4.12-4
4.12.1.2.3 Stormwater....4.12-5

4.12.1.2.4 Solid Waste 4.12-5
4.12.1.2.5 Energy, Heating, and Cooling 4.12-5
4.12.1.2.6 Communications 4.12-5
4.12.2 Environmental Consequences 4.12-6
4.12.2.1 No Action 4.12-6
4.12.2.2 Proposed Action 4.12-6
4.12.2.3 Cumulative Effects 4.12-8
4.13 Hazardous and Toxic Substances 4.13-1
4.13.1 Affected Environment 4.13-1
4.13.1.1 Fort Carson and Piñon Canyon Maneuver Site 4.13-1
4.13.2 Environmental Consequences 4.13-1
4.13.2.1 No Action 4.13-1
4.13.2.2 Proposed Action 4.13-1
4.13.2.3 Cumulative Effects 4.13-2
5 ACRONYMS 5-1
6 LIST OF PREPARERS 6-1
6.1 Fort Carson and Installation Points of Contact 6-1
6.2 Army Environmental Command 6-2
6.3 Others 6-2
6.4 Potomac-Hudson Engineering Team 6-3
7 REFERENCES 7-1

APPENDICES

Appendix A Operational Noise Consultation No. 52-EN-0FKB-12 Operational Noise Assessment, Heavy Combat Aviation Brigade Stationing, Fort Carson, CO

Appendix B Agency Coordination

Appendix C Public Comments on the January 2012 Draft EA and Army Responses

Appendix D Public Comments on the May 2012 Final EA/Draft FNSI and Army Responses

LIST OF TABLES

Table 2.3-1. Heavy CAB Critical Flying Hours, Full Spectrum Operations Training Strategy 2-7
Table 3.2-1. Anticipated Direct and Indirect Impacts to Valued Environmental Components 3-2
Table 3.2-2. Projects and Activities Different than 2009 Plans 3-3
Table 3.2-3. Anticipated Cumulative Impacts to Valued Environmental Components from CAB Stationing Implementation at Each Potential Site 3-4

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson 3-6
Table 3.3-2. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Piñon Canyon Maneuver Site 3-22
Table 4.4-1. Noise Zone Descriptions 4.4-1
Table 4.8-1. Fort Carson Area of Potential Effects Resources – National Register of Historic Properties Status 4.8-4
Table 4.9-1. Predicted Impacts at Fort Carson/Piñon Canyon Maneuver Site and Rational Threshold Value 4.9-2
Table 4.10-1. CAB Stationing Implementation Roadway Improvements 4.10-2
Table 4.10-2. Master Plan Development Summary 4.10-2
Table 4.10-3. 24-Hour Traffic Volumes 4.10-3
Table 4.12-1. Potable Water Utility Upgrades 4.12-1

LIST OF FIGURES

Figure 1.2-1. Fort Carson, Colorado 1-2
Figure 1.2-2. Piñon Canyon Maneuver Site, Colorado 1-3
Figure 2.2-1. Existing Development at Fort Carson Wilderness Road Complex and Butts Army Airfield 2-3
Figure 2.3-1. Standard Heavy CAB Force Structure 2-6
Figure 2.3-2. Construction Area in/around Wilderness Road Complex and Butts Army Airfield in Support of CAB Stationing Implementation 2-15
Figure 2.3-3. Master Site Plan for Fort Carson Wilderness Road Complex and Butts Army Airfield 2-16
Figure 2.3-4. Concrete Pad Construction at PCMS Combat Assault Landing Strip 2-17
Figure 4.4-1. Butts Army Airfield Baseline Noise Zones 4.4-2
Figure 4.4-2. Fort Carson Large Caliber Noise Contours for Existing and CAB Activity 4.4-4
Figure 4.4-3. Butts Army Airfield Projected Activity Noise Zones 4.4-6
Figure 4.11-1. Unmanned Aircraft Systems Stationed at Fort Carson 4.11-2
Figure 4.11-2. Fort Carson Restricted Airspace 4.11-3
Figure 4.11-3. Piñon Canyon Maneuver Site Military Operations Area 4.11-4
Figure 4.11-4. Route Hawk 4.11-5
Figure 4.11-5. Proposed Route Hawk Modification 4.11-7
Figure 4.11-6. Close-up of Proposed Route Hawk Modification by PCMS 4.11-8
Figure 4.11-7. U.S. Air Force Proposed Low Altitude Training Area Boundary 4.11-10
Figure 4.12-1. Aerial View of Fort Carson Wastewater Treatment Plant 4.12-3

1 PURPOSE, NEED, AND SCOPE

In March 2011, the Army announced its decision to activate a new Combat Aviation Brigade (CAB) and station it at Fort Carson, resulting in a total growth in Army forces and equipment of approximately 2,700 Soldiers and 113 helicopters. This decision is documented in the *Record of Decision for the Realignment, Growth, and Stationing of Army Aviation Assets*, signed by the Assistant Deputy Chief of Staff, G-3/5/7, on March 25, 2011 (hereinafter referred to as the 2011 *CAB Stationing ROD*). Implementation of the stationing decision would include construction of new facilities at Fort Carson, as well as CAB training operations at Fort Carson and Piñon Canyon Maneuver Site (PCMS).

1.1 PURPOSE AND NEED

The Installation, which encompasses Fort Carson and PCMS, must take those actions necessary to support the CAB stationing decision made at Headquarters, Department of the Army (HQDA). The purpose and need of the proposed action is to implement effectively and efficiently the stationing decision, to include ensuring adequate facilities requirements are met. The Installation must provide for the training readiness, deployment, administrative functions, and Soldier and Family Quality of Life elements for those assigned to and supporting the incoming CAB that is to be home-stationed at Fort Carson.

1.2 SCOPE OF THE ANALYSIS

This environmental assessment (EA) has been developed in accordance with the National Environmental Policy Act (NEPA), regulations issued by the Council on Environmental Quality (CEQ) published in 40 Code of Federal Regulations (CFR) Parts 1500-1508, and the Army's NEPA-implementing procedures published in 32 CFR Part 651, *Environmental Analysis of Army Actions (Army Regulation 200-2)*. This EA facilitates the Installation's planning and informed decision-making, helping the Garrison Commander, those organizations involved in CAB stationing implementation, and the public, to understand the potential extent of environmental impacts of the proposed action and alternatives, and whether those impacts (direct, indirect, and cumulative) are significant.

In this EA, the term 'Installation' refers to both Fort Carson and PCMS, as indicated above. The term 'Fort Carson' will refer to that part of the Installation located in central Colorado (see Figure 1.2-1). The term 'PCMS' will refer to that part of the Installation located in southeastern Colorado (see Figure 1.2-2).

The scope of this EA encompasses the three major categories of Army activity required to station the CAB: garrison construction of CAB facilities, live-fire training, and maneuver and flight operations training.

In the February 2011 *Final Programmatic Environmental Impact Statement (PEIS) for the Realignment, Growth, and Stationing of Army Aviation Assets,* herein referred to as the 2011 *CAB Stationing PEIS*, a fourth major category of Army activity, training range infrastructure construction, was considered. At the time of that analysis, the Army determined that the Installation had sufficient range infrastructure to facilitate CAB training; thus, training infrastructure construction was not part of that proposed action, and was not analyzed. This determination was based on the assumption that the Army would continue to deploy aviation units at the then-current operations tempo for the foreseeable future. This assumption has changed with the current state of world affairs and the anticipated drawdown of deployed forces in the Central Command Area of Operations (namely, Afghanistan and Iraq).

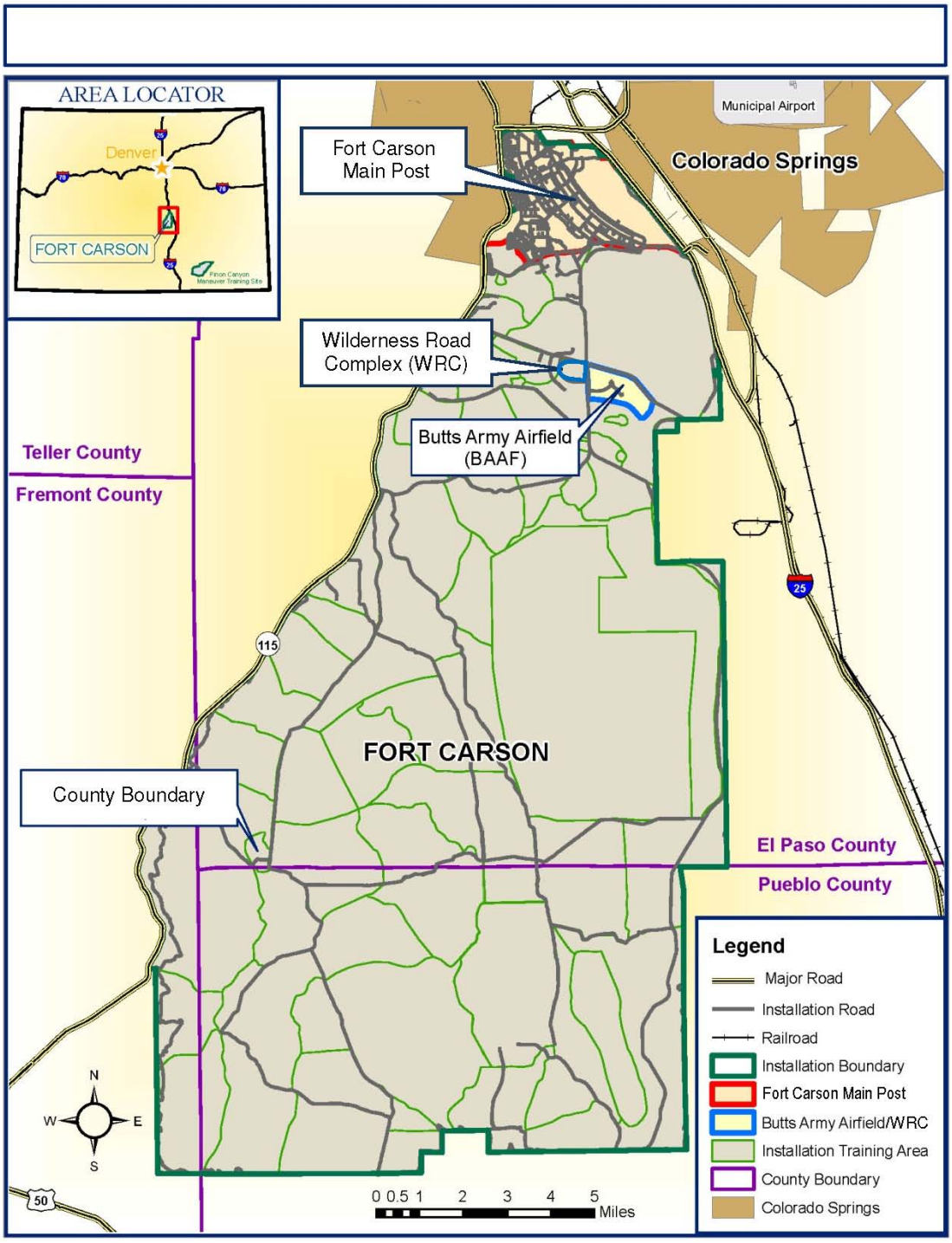


Figure 1.2-1. Fort Carson, Colorado

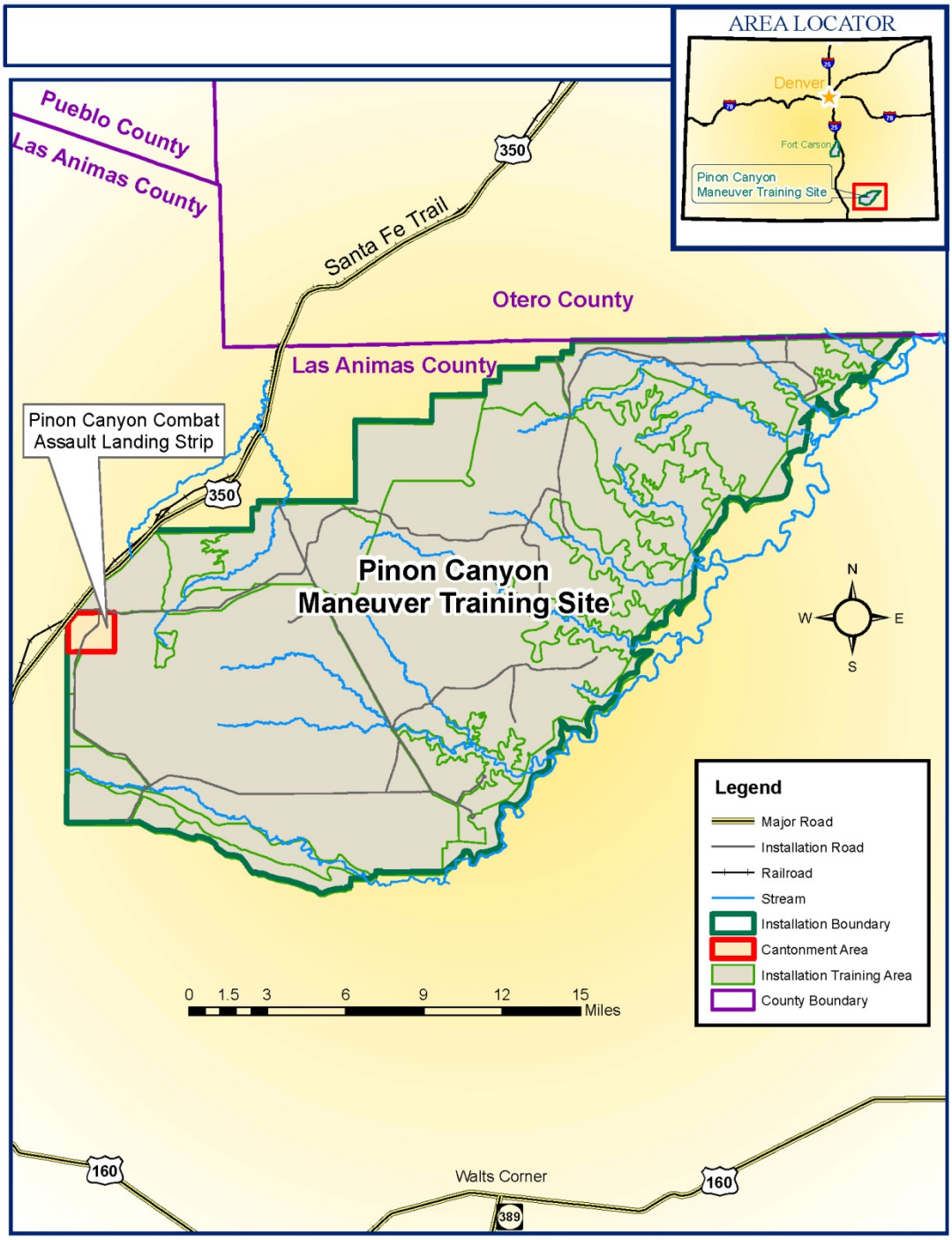


Figure 1.2-2. Piñon Canyon Maneuver Site, Colorado

Although CAB operations would increase the use of those ranges needed to train the CAB, the cumulative effects of range usage has the potential to be reduced should the Army's planned reduction in forces (DefenseNews, 2011) result in a decrease of any brigade combat teams (BCTs) currently stationed to Fort Carson. Analysis into training infrastructure needs at the Installation is continuously ongoing, and at the present time there are no plans to construct new

CAB-related training ranges at Fort Carson or PCMS; however, should the need arise in the future, the Installation would conduct appropriate NEPA analysis, documentation, and review prior to any decision on training infrastructure construction. As there is currently no reasonably foreseeable requirement, construction of new CAB-related training ranges at Fort Carson and PCMS is therefore not included in analyses of cumulative impacts.

The scope of this EA does not include land acquisition for expansion of PCMS. The proposed action does not require or involve expansion of PCMS.

1.3 RELATED ENVIRONMENTAL DOCUMENTATION

This environmental analysis incorporates by reference the 2011 *CAB Stationing PEIS* environmental analysis. Specific reference to applicable portions of the 2011 *CAB Stationing PEIS* are provided, as appropriate and where relevant, in the analysis portion of this EA.

This environmental analysis also incorporates by reference the February 2009 *Final Environmental Impact Statement for Implementation of Fort Carson Grow the Army Stationing Decisions*, herein referred to as the 2009 *Fort Carson Grow the Army FEIS*. Specific reference to applicable portions of the 2009 *Fort Carson Grow the Army FEIS* are provided, as appropriate and where relevant, in the analysis portion of this document. Where analysis conducted for this EA results in a changed conclusion from the 2009 CAB-related analysis, the change and/or difference is presented in this EA.

Mitigation measures identified for Fort Carson and PCMS that are listed in the 2011 *CAB Stationing ROD* are incorporated into this EA.

1.4 PUBLIC INVOLVEMENT

Under NEPA, the public is afforded the opportunity to comment and is encouraged to participate during the analysis and decision-making process. Public participation provides for open communication between the Army and interested parties and the identification of important issues of environmental concern, enabling more informed decision making.

An EA results in either a Finding of No Significant Impact (FNSI) or a Notice of Intent (NOI) to prepare an environmental impact statement (EIS). For EAs that result in a FNSI, the public involvement requirements can be limited. The Army's NEPA regulation, 32 CFR 651.14(b)(2), requires only that a Final EA and Draft FNSI be made available to the public for review and comment for 30 days prior to making a final decision and proceeding with an action; however, both the CEQ's NEPA regulations and the Army's regulation encourage additional public involvement when appropriate and to the extent practicable. As explained in 32 CFR 651.36, the Army is committed to open decision-making and building community trust.

Due to the high level of interest exhibited by the public regarding CAB stationing at Fort Carson, as demonstrated during the 2011 CAB Stationing PEIS process, the Installation decided to publish Notices of Availability (NOAs) in community newspapers to announce the release of the Draft EA and the Final EA/Draft FNSI for public review. The decision of preparing two NOAs was to provide additional opportunities to participate in the analysis and decision-making process for CAB stationing implementation by: (1) providing two public comment periods; one following the publication of the Draft EA; the other following publication of a Final EA and Draft FNSI, or if appropriate, a NOI to prepare an EIS; and (2) conducting public meetings after publication of the Draft EA. One public meeting each was held at the Crowne Plaza Hotel in Colorado Springs on January 26, 2012; Trinidad Community College in Trinidad on January 23, 2012; and Otero Junior College in La Junta on January 24, 2012.

Comments by the public, government agencies, other appropriate entities, and stakeholders were submitted at the above-mentioned public meetings. Additionally, comments on the Draft EA and the Final EA were sent to the U.S. Army Environmental Command (USAEC) during the applicable published comment period. Comments were sent by e-mail to USARMY.JBSA.AEC.MBX@mail.mil or mailed to: Public Comments USAEC, Attn: IMPA – AE (Kropp), 2450 Connell Road (Building 2264), Fort Sam Houston, Texas 78234-7664. For questions regarding comment submittals, call (210) 466-1590.

1.5 AGENCY AND TRIBAL COORDINATION

In accordance with 32 CFR 651.36 and 40 CFR 1501.4(b) regarding consultation, the Installation is consulting, and will continue to consult with appropriate local, state, and Federal government agencies and Native American tribes throughout this EA process to the extent practicable. More information on government agency and tribal consultation is set forth throughout this document, such as in Section 4.8, with copies of appropriate corresponding documentation contained in Appendix B. As described in Section 4.8, the Installation has initiated consultation with the Colorado State Historic Preservation Officer (COSHPO), and has already received initial comments in response (see Appendix B). Consultation with Federally-recognized Tribes was also initiated (see Section 4.8). The Installation will continue to consult with the COSHPO, potentially affected tribes, and other agencies as necessary and appropriate. As explained in Section 4.3, the Installation will include CAB impacts as part of its routine, required update to its Title V Clean Air Act (CAA) permit in 2012, as appropriate and as required.

1.6 DECISION TO BE SUPPORTED

As stated in Section 1.4, an EA results in either a FNSI or a NOI to prepare an EIS. As part of the decision-making process, the Garrison Commander will consider all relevant environmental information and stakeholder issues of concern raised as part of this EA process. If the process results in a FNSI, the Garrison Commander will document the decision, which will be signed no earlier than 30 days from the publication of the NOA of the Final EA/Draft FNSI (see Section 1.4 above for information on two NOA publications).

This Page Intentionally Left Blank.

2 PROPOSED ACTION, ALTERNATIVES, AND SCREENING CRITERIA

This chapter discusses the proposed action and alternatives, and provides detail about the components of the proposed action. It also presents the criteria used to determine whether alternatives were reasonable and, therefore, should be carried forward for analysis.

2.1 SCREENING CRITERIA

Screening criteria were used to assess whether an alternative was "reasonable" and would be carried forward for evaluation in this EA. The screening criteria are based upon balancing sustainment of the land for training with maximizing troop readiness.

The Army established the following screening criteria to identify the range of potential construction locations and the ability to conduct CAB training operations.

2.1.1 Military Construction Planning Considerations

Reasonable alternatives must:

- Include sites that have the space capable to construct the facilities within reasonable cost parameters;
- Provide unit cohesiveness;
- Conform to the Installation's Master Plan (which includes PCMS);
- Have CAB facilities either co-located with or within close proximity to the airfield due to aviation mission requirements and standard Army operational requirements (Unified Facilities Criteria [UFC] 4-140-01). This siting requirement is needed to ensure that Soldiers can adequately maintain their equipment and to facilitate administrative control of the unit;
- Consider the Installation's sustainability principles (applicable to Fort Carson and PCMS); and
- Consider feasibility of timely completion of military construction (MILCON).

2.1.2 Training Considerations

Reasonable alternatives must accommodate the training requirements of CAB Soldiers and units, to include air-ground integration training.

2.1.3 Land Constraints

Reasonable alternatives must consider:

- Topography (buildable space and ability to train);
- Contaminated sites under the management of the Installation's Installation Restoration Program;
- Off-limits training/restriction areas;
- Unexploded ordnance (UXO); and
- Impacts to existing infrastructure and maneuver lands.

2.2 PROPOSED ACTION AND ALTERNATIVES

The primary purpose of this section is to discuss the proposed action considered for the Installation to implement the stationing of a CAB at Fort Carson. The No Action Alternative and

alternatives considered but dismissed from further consideration in this EA are addressed. A detailed discussion of the proposed action is described in Section 2.3.

2.2.1 No Action

Under the No Action Alternative, the CAB stationing decision would not be implemented. Force structure, assigned personnel and equipment, and training operations would remain unchanged and no CAB-related construction or renovation would occur.

The No Action Alternative includes construction and other changes associated with past Grow the Army and transformation decisions and activities. As part of the No Action Alternative, the Installation would retain the Army aircraft currently stationed at the Installation and would continue to conduct existing aviation operations and training activities. The Installation currently has 30 Army aircraft assigned; down from historical numbers (e.g., 70 helicopters were assigned to Fort Carson as recently as 2007). Helicopters from the U.S. Army National Guard and the U.S. Army Reserve units also conduct training exercises at the Installation. Figure 2.2-1 depicts the development that currently exists at the Wilderness Road Complex (WRC) and Butts Army Airfield (BAAF), the sites for facilities construction to support the proposed action.

This alternative is included as required by the CEQ and 32 CFR Part 651, the Army's NEPA-implementing regulations. The No Action Alternative, however, is not feasible as the Installation is required to implement the stationing decision made by HQDA. The decision to station a CAB at Fort Carson was made after NEPA review by HQDA, which took into consideration some of the components that are involved in stationing implementation. That decision took into account the study of possible locations within the Army for activating and standing up a new CAB and realigning and consolidating existing aviation units to form a CAB. Fort Carson was chosen as a stationing location as part of that process. A new CAB would be located at Fort Carson; therefore, this EA will analyze how best to implement that decision. The No Action Alternative is included in this EA only to provide baseline conditions and a benchmark from which to compare environmental impacts of the proposed action.

2.2.2 Proposed Action: CAB Stationing Implementation with Construction of Support Facilities at the Wilderness Road Complex and within the Butts Army Airfield

As part of the proposed action, Fort Carson would construct garrison support facilities for the CAB at the WRC construction site off of Wilderness Road just west of BAAF. Several hundred acres of ground disturbance and demolition/renovation/construction at the BAAF site would be required for facilities to support approximately 2,700 Soldiers, 113 helicopters, between 600 and 700 wheeled vehicles and trucks, and other associated support equipment. The proposed action includes CAB training activities at Fort Carson and PCMS and CAB maneuvers and support of air-ground integrated maneuvers at Fort Carson and PCMS. The proposed action is anticipated to also result in the 2,700 CAB Soldiers being accompanied by slightly more than 4,000 Family members.

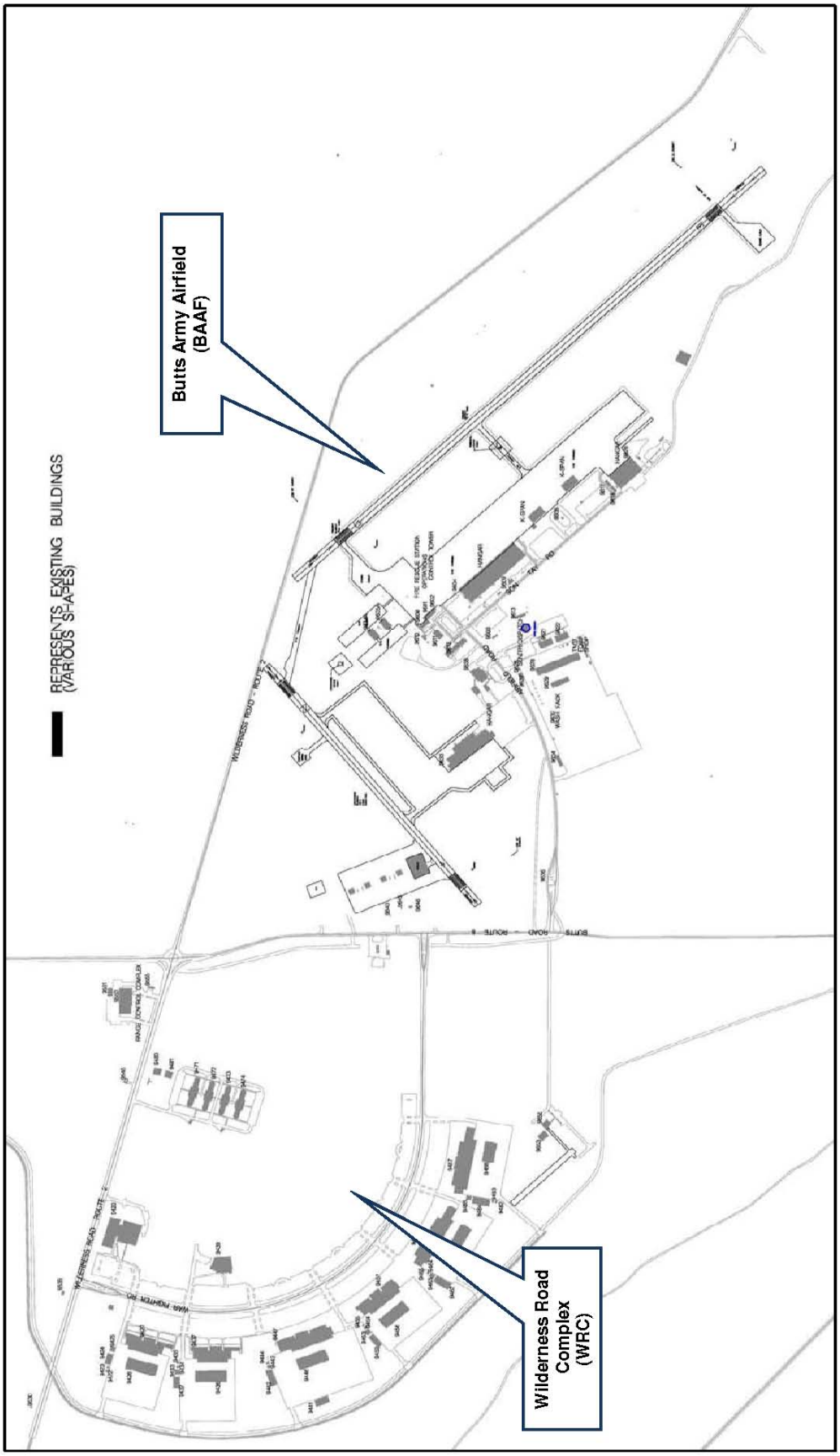


Figure 2.2-1. Existing Development at Fort Carson Wilderness Road Complex and Butts Army Airfield

2.2.3 Alternatives Considered but Dismissed

2.2.3.1 Train CAB at Other Locations

The Army's decision to station a CAB at Fort Carson was partially based on the training resources at Fort Carson and PCMS, so as to optimize training opportunities for CABs to train with ground maneuver BCTs. Studying an alternative to conduct regular installation-level training at locations other than Fort Carson and PCMS would essentially constitute re-examining the decision documented in the 2011 *CAB Stationing ROD* and, therefore, is not within the scope of this EA.

The proposed action is anticipated to include some CAB training at locations other than Fort Carson and PCMS; however, the majority of training would not be at other locations. For example, some small-scale, specialized training, such as high altitude mountain training, already occurs on non-Department of Defense (DoD) lands in the vicinity, such as the Pike and San Isabel National Forests. As needed and as appropriate, small-scale, specialized training of CAB units would occasionally occur on lands other than Fort Carson or PCMS. Such training would occur per agreements with the applicable land owner(s) and the appropriate NEPA analysis, documentation, and review would be conducted.

2.2.3.2 Construct Facilities for the CAB at a Different Location on Fort Carson

The 2009 *Fort Carson Grow the Army FEIS* already analyzed alternate locations for construction of CAB facilities and determined that the Operational Readiness Training Center (ORTC) area, since re-named the WRC, and BAAF are the only locations for CAB facilities that meet the criteria listed in Section 2.1. Due to the aviation mission requirements and standard Army operational requirements (UFC 4-140-01), the CAB must be either co-located with or within close proximity to the airfield. This siting requirement ensures that Soldiers can adequately maintain their equipment and administrative control of the unit. As a result of these requirements, and together with the constraints of wetlands located to the south of BAAF, an impact area to the north, and the Installation boundary to the east, the WRC is the only viable location for the construction and implementation for the CAB stationing. Therefore, other locations for siting facilities to support the CAB were not analyzed in this EA.

2.2.3.3 Use Existing/Renovated Facilities for the CAB on Fort Carson

Insufficient facilities currently exist to support CAB stationing implementation. Using only existing faculties or a combination of existing/renovated facilities would not accommodate the requirements of CAB Soldiers and units.

2.3 DESCRIPTION OF PROPOSED ACTION

This section provides a description of the proposed action components the Army would undertake to carry out CAB stationing implementation with construction of support facilities at the WRC and within the BAAF (Section 2.2.2 above).

2.3.1 Proposed Action Components

The proposed action is to implement the stationing of a CAB at Fort Carson. The CAB would consist of approximately 2,700 Soldiers and 113 helicopters.

The three major categories of Army activity required to station the CAB (garrison construction, live-fire training, and maneuver and flight operations training) can further be broken out into the five below described components of the proposed action:

- ***Troop-Level Increase.*** Accommodate an overall increase in Soldiers who would work, live, and train at Fort Carson and PCMS. Under the proposed action, approximately 2,700 CAB Soldiers would be stationed at Fort Carson.
- ***Facility Construction/Renovation.*** Construct new facilities and infrastructure, demolish existing facilities, and renovate existing facilities and infrastructure to support the increased population, additional helicopters and support equipment, and training activities. Under this alternative, approximately 113 helicopters would be assigned to the CAB. Construction of administrative offices, barracks, vehicle and aircraft parking, maintenance facilities, equipment storage, recreational facilities, roads, and other infrastructure are required to support a CAB along with the associated hangars for helicopters, helicopter parking aprons, vehicle parking areas, and storage space. Demolition of some existing structures at BAAF would also be required. Approximately 250-300 acres (31-37 hectare [ha]) are anticipated to be impacted by CAB-related garrison construction. Under the proposed action, all construction would occur at Fort Carson. The timing of construction and renovation projects would be contingent upon funding availability and priorities, and projects would likely be constructed in phases throughout the implementation period. Types of facilities to be constructed are listed in Section 2.3.4. The focus area for facility construction/renovation is WRC and BAAF. The WRC was selected in the 2009 *Fort Carson Grow the Army ROD* over the alternative Tent City site for other Army actions, with both having been analyzed in the 2009 *Fort Carson Grow the Army FEIS* as sites for CAB facilities.
- ***Live-fire and Maneuver/Flight Operations Training.*** Provide for training activity of the CAB, to include air-ground integration training with ground maneuver BCTs. Training must incorporate the need to balance the Army's integrated goals of maintaining military training readiness and sustaining lands for continued use.
- ***Training Strategy.*** Training under the proposed action would occur throughout Fort Carson and PCMS, to include regional airspace, in accordance with the sustainability of the land for different training activities (e.g., live-fire or maneuver/flight operations), ability to sustain the land, and applicable Army and Installation regulations (e.g., Fort Carson Regulation 95-1, Aviation: Local Flying Rules and Procedures).
- ***Environmental and Training Conditions.*** Factors beyond the Army's control, such as world events, troop deployments, and climatic conditions, affect the implementation of training. Environmental and training conditions are dynamic; therefore, training activity under the proposed action is a process by which the Army would monitor and respond to changing conditions in order to sustain the land for training and provide maximum troop readiness.

2.3.2 CAB Mission and Force Structure

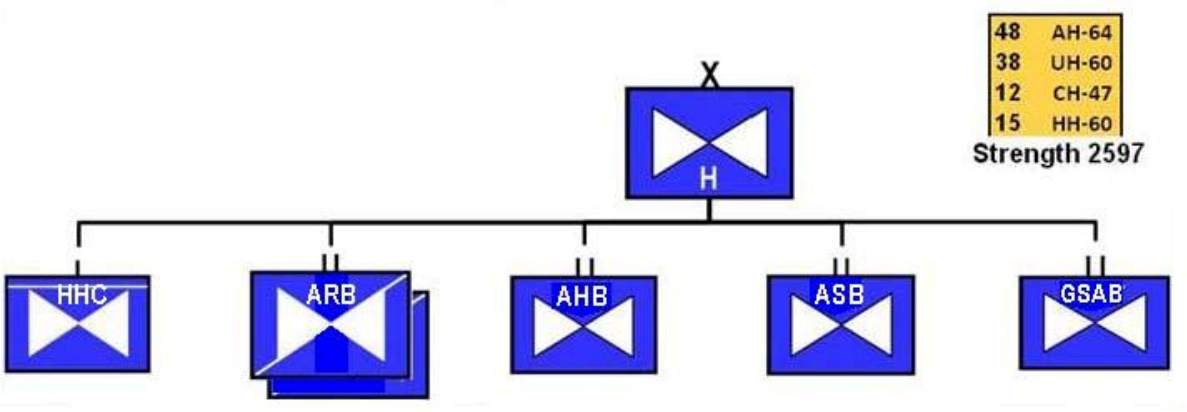
The primary mission of the CAB is to deploy to support the mission commander's aviation needs in the operational theater, and, when at home station, to train on critical tasks to enhance readiness. The mission of a CAB is to conduct the following operations:

- Air assault operations
- Air defense operations
- Air movement operations
- Command, control, communications, computers, and intelligence operations
- Combat service support operations

- Combat support operations
- Deployment/redeployment operations
- Fast rope insertion and extraction system and special patrol infiltration/extrication system operations
- Mission planning and preparation
- Mobility, counter mobility, and survivability operations
- Reconnaissance and surveillance operations
- Stability operations and support operations
- Casualty evacuation

A key component of CAB readiness is training with ground units to integrate air and ground operations. In training with ground units on complex maneuver and live-fire tasks, aviation Soldiers and leaders also enhance their effectiveness in understanding the requirements and expectations for ground unit support. Training together, units are able to enhance each other's readiness and reach optimal effectiveness as a combined arms team.

The CAB to be stationed at Fort Carson would consist of approximately 2,700 Soldiers and 113 helicopters. The CAB would be a Heavy CAB that would have UH-60 Black Hawks (medium lift helicopters), AH-64 Apaches (attack helicopters), and CH-47 Chinooks (heavy lift helicopters). The difference between a Medium and Heavy CAB is that a Heavy CAB has more attack helicopters (i.e., the AH-64D), giving it more fire-power. Additionally, the CAB would maintain and operate between 600 to 700 wheeled vehicles and trucks to support aviation operations, such as logistics and troop transport, maintenance, and supply. Figure 2.3-1 shows the force structure of a standard Heavy CAB. The CAB consists of: a headquarters and headquarters company (HHC), two attack reconnaissance battalions (ARB), an assault helicopter battalion (AHB), an aviation support battalion (ASB), and a general support aviation battalion (GSAB). Although some Army CABs contain an Unmanned Aircraft System (UAS) company, the CAB that has been stationed at Fort Carson does not include a UAS company.



Note: X = Brigade; I = Company; II = Battalion; H = Heavy CAB

Figure 2.3-1. Standard Heavy CAB Force Structure

To maintain proficiency, a certain number of flight hours are required to be logged by applicable Soldiers and units. Flight hours are based upon a model that includes all aviation training required to meet individual aviator qualification training, aircrew training, and collective training at the flying company and battalion level. The required flight hours for a Heavy CAB are noted in

Table 2.3-1. As explained below, actual average flying hours by CAB Soldiers in and around Fort Carson and PCMS are anticipated to be lower due to a number of factors.

Table 2.3-1. Heavy CAB Critical Flying Hours, Full Spectrum Operations Training Strategy

Heavy Combat Aviation Brigade Critical Flying Hours, Full Spectrum Operations Training Strategy				
Unit (Aircraft)	**Training Year**			**Average (Hours)**
	Year 1	**Year 2**	**Year 3**	
AHB (UH-60)	4,422	6,017	5,726	**5,388**
ARB (AH-64D)	8,718	11,568	10,972	**10,419**
GSAB-CAC (UH-60)	1,343	1,831	1,739	**1,638**
GSAB-Hvy Hel Co (CH-47)	1,940	2,651	2,518	**2,370**
GSAB-MEDEVAC (15 UH-60)	2,524	3,551	3,352	**3,142**
Army Model Projection	**18,947**	**25,618**	**24,307**	**22,957**
Probable Use Scenario	**-**	**-**	**-**	**14,880**

As indicated in Table 2.3-1, the average number of required annual flight hours for a Heavy CAB is estimated at 22,957. This EA assumes throughout that under the proposed action, the CAB would actually utilize the 22,957 flight hours per year in and around Fort Carson and PCMS projected by the Army model. There are several reasons, however, that this estimate is likely to far exceed the number of actual flying hours for the CAB. First, the number of flying hours for a CAB is usually reduced based on available funding for any given fiscal year (FY); typically, the actual funded flying hours are 15 percent less than the estimated "required" flying hours. Additionally, the estimated flying hours indicated in Table 2.3-1 are based on the assumption that the CAB would be located at home station (Fort Carson) rather than deployed, and that the ground units with which the CAB trains would also be at home station for the entire year. Assuming that CAB deployments continue as projected, the full CAB is not estimated to be at home station for an entire training year until 2017. In light of historic and projected funding, as well as the deployment cycle, a more probable estimate of annual CAB flight hours is 14,880 (Probable Use Scenario). Due to the uncertainty of actual CAB training in the coming years, this EA analyzed the Army model for flying hours set forth in Table 2.3-1.

2.3.3 CAB Training and Ranges

2.3.3.1 Introduction to Brigade Training

This introduction to brigade training is provided to facilitate an understanding of CAB training activities as related to the environmental effects of the potential CAB stationing implementation.

Training is the Army's number one priority for units. Commanders train their units to be combat ready. "Battle Focus" is a concept used to derive training requirements, and units train according to their Mission-Essential Task Lists (METLs). This is derived from wartime operational plans (why they fight), specific (to unit) combat capabilities (how they fight), the operational environment (where they fight), directed missions (what they must do) and any external guidance. The Army trains Soldiers in individual skills, units on collective tasks, and different levels of units through multi-echelon training. The Army trains as it fights, as a combined arms team. Combined arms training is a doctrinal approach to training, which seeks

to integrate critical combat forces, ensuring they are trained together as a single team to accomplish mission objectives.

Training ranges, training lands, and training airspace are the Army's classrooms and, "Commanders take every opportunity to move Soldiers out into the field, to fire weapons, maneuver as a combined arms team and incorporate protective measures against enemy actions" (Field Manual 7-1, Battle Focused Training).

All Soldiers qualify with their individual weapon (rifle or pistol) at least twice annually; crew-served weapons qualification varies by type of unit. This training is usually accomplished at the company level on fixed ranges described in Training Circular 25-8. Weapons system training consists of a series of "tables" and occurs on large range complexes.

All units train in "field-craft," which includes establishing logistical and command and control operations in maneuver areas. Aviation units establish forward arming and refueling points (FARPs) to service their helicopters during field training exercises. From those forward area locations, the units train on their METL.

2.3.3.2 Individual/Crew Qualification Ranges

The following describes the difference in required individual and crew qualification ranges at the Installation. All four types of ranges described below exist at Fort Carson and PCMS.

- ***25-Meter Zero Range.*** Train Soldiers in basic marksmanship by teaching them techniques to engage stationary targets and sighting adjustment techniques. It can support M16 or M4 rifle firing, as well as that of crew-served machine guns.
- ***Modified Record Fire Range.*** Train support unit Soldiers in basic marksmanship tasks by teaching them to quickly aim and engage stationary infantry targets.
- ***Combat Pistol Qualification Course.*** Train Soldiers to identify, engage, and defeat an array of targets using the 9 millimeter (mm), .38-caliber, or .45-caliber pistol.
- ***Multi-purpose Machine Gun Range.*** Train Soldiers to engage stationary infantry and moving infantry targets and stationary vehicle targets with the full range of Army machine guns to include the M249, M60, M240, and .50-caliber arms.

2.3.3.3 Aerial Gunnery and Integrated Aviation/Ground Maneuver Qualification Ranges

The following describes the types of required training that occurs on the aerial gunnery and integrated aviation and ground maneuver qualification ranges at the Installation. The types of ranges described below are at Fort Carson, not PCMS.

- ***Multi-Purpose Range Complex or Digital Multi-Purpose Range Complex.*** Train and test aviation, armor and infantry crews, sections, squads, and platoons on skills necessary to detect, identify, engage, and defeat stationary and moving infantry and armor targets in a tactical array. This complex also accommodates training with sub-caliber and/or laser training devices. All targets are fully automated, utilizing event-specific, computer-driven target scenarios during scoring.
- ***Aerial Gunnery Range or Digital Air to Ground Integration Range.*** Train aviation crews, teams, platoons, and companies on skills necessary to detect, identify, and effectively engage stationary and moving infantry and/or armor targets in a tactical array. Company combined arms live-fire exercises and fully integrated advanced gunnery tables may also be conducted on this facility.

- ***Combined Arms Collective Training Facility or Urban Operations Training Range.*** Train aviation units on skills necessary to detect, identify, and engage targets in an urban setting in support of ground maneuver operations.

2.3.3.4 Live-fire Training

Live-fire training is an essential component of Army training and of the implementation of the proposed action. To be operationally effective, Soldiers must have the skills and experience necessary to operate and maintain their weapons. Live-fire involves both munitions and explosives that will be used in combat and non-explosive training rounds. Soldiers must "train as they fight" in order to properly prepare for combat situations. At a minimum, all Soldiers must qualify on individual weapons per their METL at least twice a year. In addition, platoons, companies, and battalions of CABs must conduct collective live-fire training exercises on firing ranges to ensure they have rehearsed and coordinated battle procedures and are prepared to deploy to support wartime operations. Various weapons systems use different types of munitions. Live-fire training of CAB units primarily includes small arms weapons to include the use of M-4 rifles with 5.56 mm munitions, 9 mm pistols, and M240 machine guns loaded with 7.62 mm munitions. The CAB must also fire larger caliber weapons systems as part of live-fire training, to include the M2 .50-caliber and M230 30 mm weapons systems. In addition, attack aviation units, such as Apache Longbow helicopters, fire 2.75-inch rockets and Hellfire guided missiles as part of live-fire training activities; these munitions are only used at designated ranges at Fort Carson and not authorized for use at PCMS. Depending on ammunition availability and deployment cycles, the actual use of training ammunition for a CAB fluctuates from year to year.

CAB units must conduct live-fire training in a variety of settings to ensure unit readiness for deployment. Reconnaissance and attack aviation must conduct integrated training with combat maneuver ground units in both urban and open terrain settings, and attack aviation units of the CAB must execute specific "diving-fire" tasks to engage ground targets in support of ground maneuver units.

As part of the proposed action, the Army would increase its live-fire training activities at the Installation by approximately 7.5 percent and its aggregate number of Maneuver Impact Miles (MIMs) by approximately 6.5 percent. The live-fire range utilization increase updates and the MIMs are the same as that calculated for the 2009 *Fort Carson Grow the Army FEIS* preferred alternative (the current proposed action), Section 2.2.4, which are part of the proposed action selected, as recorded in the 2009 *Fort Carson Grow the Army ROD*. For more information on MIMs, refer to the 2009 *Fort Carson Grow the Army FEIS*. All firing would take place on existing designated range facilities or in existing impact areas. The vast majority of increased firing activities would be small arms and machine gun munitions from qualification activities that Soldiers must conduct twice per year. A majority of the eastern portion of Fort Carson is dedicated to supporting live-fire activities; therefore, the majority of the maneuver training involving CAB wheeled vehicles would occur on the western half of the Installation. Ideally, battalion and brigade maneuver training would primarily occur at PCMS, within established limits, to help alleviate overcrowding at Fort Carson. In practice, travel to PCMS for maneuver training may be affected by funding, timing, and logistical concerns. CAB stationing implementation would have no impact on the current limitations on live-fire at PCMS.

2.3.3.5 Maneuver and Flight Operations Training

- ***Collective Training and Air-Ground Integration Training.*** Army units regularly conduct collective training to prepare for operations. Collective training is done at the team or aircrew level up through the highest levels of Army tactical organizations and

normally at the brigade or CAB level. When Army combat arms units (such as infantry, armor, and aviation) conduct collective training that involves the movement of troops and the use of firing (live- or simulated-), it is termed "maneuver training". When collective training is conducted in concert with two or more types of combat arms units, it is termed "combined-arms" training and is done to ensure that all of the units' capabilities can be integrated and synchronized to execute missions under stressful operational conditions.

By definition, combined-arms training is a type of maneuver training. Aviation maneuver training consists of collective training of the constituent units of the CAB working together to integrate their combined capabilities and skills. It is a critical component of the unit collective training plan to train units on how to synchronize the execution of battle tasks and shoot, move, and communicate on the battlefield. CABs must conduct and rehearse maneuver training at every echelon from platoon through brigade level to ensure they can accomplish their mission-critical tasks.

CAB units are normally employed in support of ground maneuver by BCTs as a part of the combined arms team. The CAB must train regularly with BCTs at home station prior to deploying in support of operations. Such training is termed "air-ground integration training". Air-ground integration training with CAB units and ground units allows each type of unit to maneuver more effectively with the other, understanding key limitations and requirements, while promoting increased training readiness and effectiveness. Large-scale battalion and brigade maneuver training events that conduct air-ground integration operations are often the capstone training exercise that tests and certifies units for operational deployments abroad.

- ***Flight Modes and Movement Techniques.*** Flight operations training involves multiple flight modes and movement techniques. For training, flight modes and movement techniques are determined by available terrain and probability of enemy contact identified in individual training scenarios.

  The three modes of terrain flight are low-level, contour, and nap-of-the-earth (NOE). Continuous NOE or contour flight is unusual as terrain and vegetation vary. Normally, there is a transition from one mode to another as the situation dictates. Modes of terrain flight are defined as:

  - **NOE flight.** NOE flight is conducted at varying airspeeds as close to the earth's surface as vegetation and obstacles permit.
  - **Contour flight.** Contour flight is conducted at low altitudes conforming to the earth's contours. It is characterized by varying airspeeds and altitude and dictated by terrain and obstacles.
  - **Low-level flight.** Aviators perform low-level flight at constant altitude and airspeed dictated by threat avoidance.

  Movement techniques are designed to exploit mobility of helicopters while employing fire and maneuver concepts. Movement techniques are:

  - **Traveling.** This technique is employed to move rapidly over the battlefield when enemy contact is unlikely or the situation requires speed for evading the enemy.
  - **Traveling overwatch.** This technique is employed when speed is essential and enemy contact is possible. This technique is normally associated with reconnaissance, security, and attack missions when threat and/or environmental conditions preclude use of bounding overwatch. Units often employ contour or

NOE flight with the traveling overwatch technique using high and varying airspeeds depending on weather, ambient light, and threat.

- **Bounding overwatch.** This technique is employed when enemy contact is anticipated and the greatest degree of concealment is required. It is the slowest movement technique, too slow for high tempo operations and too vulnerable for nonlinear and/or urban operations. Units normally employ contour and NOE flight with the bounding overwatch technique. Airspeed during each bound is varied depending on availability of vegetation and terrain for concealment.

- ***Additional Training Techniques.*** In addition to terrain flight, NOE tasks, and hovering engagements, aviators are also trained to be well versed in maneuvering weapons-employment techniques such as running fire and diving fire.

- ***Specialized Terrain Flight.*** Air crews require certain types of specialized training from time to time. In the vicinity of the Installation, this would primarily consist of mountain/high altitude training for helicopter pilots and instructors. This type of training has been conducted since about 1978 under a special use permit issued by the U.S. Forest Service (USFS). In cooperation with the USFS, an EA was prepared in 2007 for reissuance of the permit (*Use of National Forest System Lands for Mountain/High Altitude Military Helicopter Training, October 2007*) (Fort Carson, 2007a). Training is conducted under the existing permit and the tri-annual operating plan required by that permit. Locations off the Installation used by aviators are per agreements with applicable land owner(s). Additionally, Fort Carson CAB training on lands owned by another Federal agency (e.g., Bureau of Land Management [BLM]), a state or local government, or private landowners would comply with any existing agreements or be preceded by new agreements and their appropriate NEPA analysis, documentation, and review.

- ***Estimated Breakouts of Training at Fort Carson and PCMS.*** CAB units stationed at Fort Carson would utilize PCMS to conduct some aviation unit training. A majority of flight hours conducted at PCMS would be associated with training in support of air-ground integration training exercises at the battalion and brigade levels.

  Training by mechanized ground units at PCMS would not exceed a total of 4.7 months per year, a limit established in Fort Carson's 1980 *Draft and Final Environmental Impact Statements for Training Land Acquisition* (Fort Carson, 1980a, b). This total duration will continue to provide over 7 months total per year of rest and recovery time from mechanized ground unit training on PCMS training lands; however, that rest and recovery time is not anticipated to be a continuous, uninterrupted 7-plus month period. Rest and recovery practices from all types of training activities on PCMS land are managed by land units and would not necessarily close PCMS from training on any given day. Additionally, maneuvers through an area in a rest and recovery status that is accomplished by staying on established roads and two-tracks do not disturb the rest and recovery of the applicable land unit. The Army had previously proposed adopting a more interactive and flexible model of continuous evaluation, which would not have relied on any particularly specified time limits. See the Installation's 2007 *Final Piñon Canyon Maneuver Site Transformation Environmental Impact Statement* (Fort Carson, 2007b) and 2011 *Environmental Assessment for Piñon Canyon Maneuver Site (PCMS) Transformation* (Fort Carson, 2011a). However, the "maximum flexibility" model has been rejected because that method did not adequately quantify actual foreseeable training and training impacts. The need for a more concrete estimate of anticipated training needs and the lack of objective, empirical data regarding the impact of any

increase in mechanized maneuver training has resulted in the need to remain within previously established limits unless and until greater mechanized training needs, if any, can be distinctly quantified and environmental impacts can be reliably assessed. Should the Army later desire to propose to move beyond the historically established limits, then improved data collection in the near term will aid in any future NEPA analyses. The proposed use of PCMS by CAB units, as detailed below, would not result in an increase of PCMS by mechanized ground units above the 4.7 months originally analyzed in 1980.

An aviation task force consisting of approximately 350 Soldiers, 30 helicopters, and 50 wheeled support vehicles would deploy from Fort Carson to PCMS 1 time per year for each BCT stationed at Fort Carson. This aviation task force would provide approximately 2 weeks of support for each BCT brigade-level maneuver rotation. There are four Active Component BCTs stationed at Fort Carson. The CAB would also support other brigade level units training at PCMS. Accordingly, 8 weeks (2 months) of aviation task force support of brigade level maneuvers at PCMS have been assumed to be required each year in order to support air-ground integration operations at the brigade level. Training assumptions are based on doctrinal training requirements. Operational needs, funding limitations, or maneuver space limitations may result in doctrinal training requirement work-arounds, to include increased use of simulator facilities for individual and crew training, if appropriate. In addition to supporting brigade-level training, the CAB would support some battalion-level ground unit training with smaller aviation elements. Again, per doctrinal requirements, this training would consist of up to 10 aircraft deploying to PCMS 5 to 6 times per year for up to 10 days each time (up to 2 months). Aviation support at PCMS would also include flights to these sites to support special forces and infantry unit insertions and equipment sling-loading operations at the team and squad level.

CAB units would also conduct their own aviation unit collective training apart from ground units at Fort Carson and PCMS to maintain proficiency of flight skills.

In total, it is estimated that up to one third of CAB flight time may occur at PCMS. Using the annual average CAB units training hours of 22,957 from Table 2.3-1, this would translate into an anticipated 7,652 annual average flight hours at PCMS; however, as noted in Section 2.3.2, it is believed that a more probable estimate of annual CAB flight hours is 14,880. One-third of this more probable figure indicates the anticipated average annual flight hours at PCMS would be 4,960. The stationing of a CAB at Fort Carson would not result in a significant increase in use or scheduling of PCMS. A majority of aviation operations at PCMS would be conducted to support ground operations that would have otherwise occurred without CAB support.

As with the estimates of annual flying hours described in Table 2.3-1, actual CAB training at Fort Carson and PCMS would likely to be far less than estimated in this section, due to available future funding and the deployment cycle.

- ***Wheeled Vehicles.*** CAB training at PCMS would also involve deployment of wheeled vehicles by convoy from Fort Carson. When deployed to PCMS, aviation unit ground elements would conduct refuel operations and simulated arming in the cantonment areas of PCMS and at temporary tactical training sites in the maneuver areas. Wheeled vehicles of CAB units at PCMS would not be anticipated to conduct cross-county maneuvers and would mainly operate within the cantonment area and on approved roads and established vehicle two-tracks in training areas to access designated refuel points and simulated arming.

2.3.4 Garrison Construction

Administrative offices, housing, vehicle and aircraft parking, maintenance facilities, equipment storage, recreational facilities, roads, and other infrastructure are required to support a CAB. Critical facilities required by Army CABs include office space for brigade, battalion, and company headquarters (HQ) units; barracks space for single enlisted Soldiers; Family housing; dining facilities; maintenance shops for both helicopters and vehicles; hangars for helicopters; rotary runway parking aprons; parking for vehicles; and storage space. CAB readiness capabilities and Soldier and Family Quality of Life would be negatively impacted if the Installation is unable to provide appropriate and adequate infrastructure and services.

At Fort Carson, the proposed action includes construction of CAB facilities at the WRC, located along Wilderness Road just west of BAAF, and on BAAF. Figure 2.3-2 depicts the WRC/BAAF area and road improvement areas north of BAAF at which construction activities are anticipated to occur. The 2009 *Fort Carson Grow the Army FEIS* preferred alternative (this EA's proposed action) included construction of CAB facilities in the WRC area; however the 2009 *Fort Carson Grow the Army FEIS* identified this area as the ORTC. Existing facilities at Fort Carson include BAAF runway, helipads, motor pools, hangars, wash racks, and administrative space. Construction of a new control tower and demolition of the old tower, which is part of this proposed action, would alleviate issues with the out-dated tower (built in the 1960s) and enable effective control of the increase in flight operations. As part of CAB stationing implementation, Fort Carson may need to replace and widen the runway at a future date. To support the CAB, Fort Carson would need to build facilities for brigade, battalion, and company HQ operations; replacement and additional aircraft maintenance hangars; flight simulators; vehicle maintenance shops; and storage units. Facilities for the flying companies are part of the respective hangars while the non-flying companies require unit-company operation facilities that are near the motor pools. To support the CAB Soldiers, Fort Carson would need to build barracks, a physical fitness facility, and a dining facility in the vicinity of CAB operational facilities. The proposed action would also require the construction of an additional fire station. Infrastructure construction would be required to provide improved access to the post resulting from CAB-related traffic, access roads, utilities, and stormwater control in support of these new facilities. Upgraded Access Control Points (ACPs) would be needed at Gates 6 and 19. Provision of utilities is anticipated to require additional sewer lift station(s), electrical substation(s), and water well(s). The support of the CAB would also require the construction of a central energy plant (CEP) to efficiently provide electricity, heating, and cooling to CAB facilities. The CEP would be a natural gas plant and would require connections to those facilities it is to support. The proposed action would also result in the demolition of a few facilities in and around BAAF, such as Building 9604, which is old and too inefficient to maintain aircraft efficiently for flight operations. The current development at the WRC and BAAF are depicted in Figure 2.3-2 and proposed development plans to accommodate the CAB in the WRC/BAAF area is depicted in Figure 2.3-3.

Stationing of the CAB would generate an additional need for Family housing that would be satisfied by a combination of on-post privatized housing and off-post homes and apartments. The need for construction of more on-post housing is driven by an existing deficit of such housing at Fort Carson. Funding, allocation of land, and construction for new Family housing is ongoing.

The only minimal new construction anticipated at PCMS, as a result of CAB stationing implementation, would be the placement of new concrete helicopter pads proposed at the combat assault landing strip (Figure 2.3-4). The final design and location of the new pads may change due to aircraft safety concerns. The landing strip is currently surfaced with compacted crushed gravel.

No new construction of training ranges for the CAB is planned at this time. As explained in Section 1.2, the Army is currently evaluating the need for additional training range capability at the Installation; however, several dynamic factors (such as the uncertain state of overseas deployment requirements and the Federal budget) make this evaluation difficult. If the Army ultimately determines that new ranges are required, then the appropriate NEPA analysis, documentation, and review would be conducted. As this is currently not a reasonably foreseeable requirement, construction of new CAB-related training ranges at Fort Carson and PCMS is, therefore, not included in analyses of cumulative impacts.

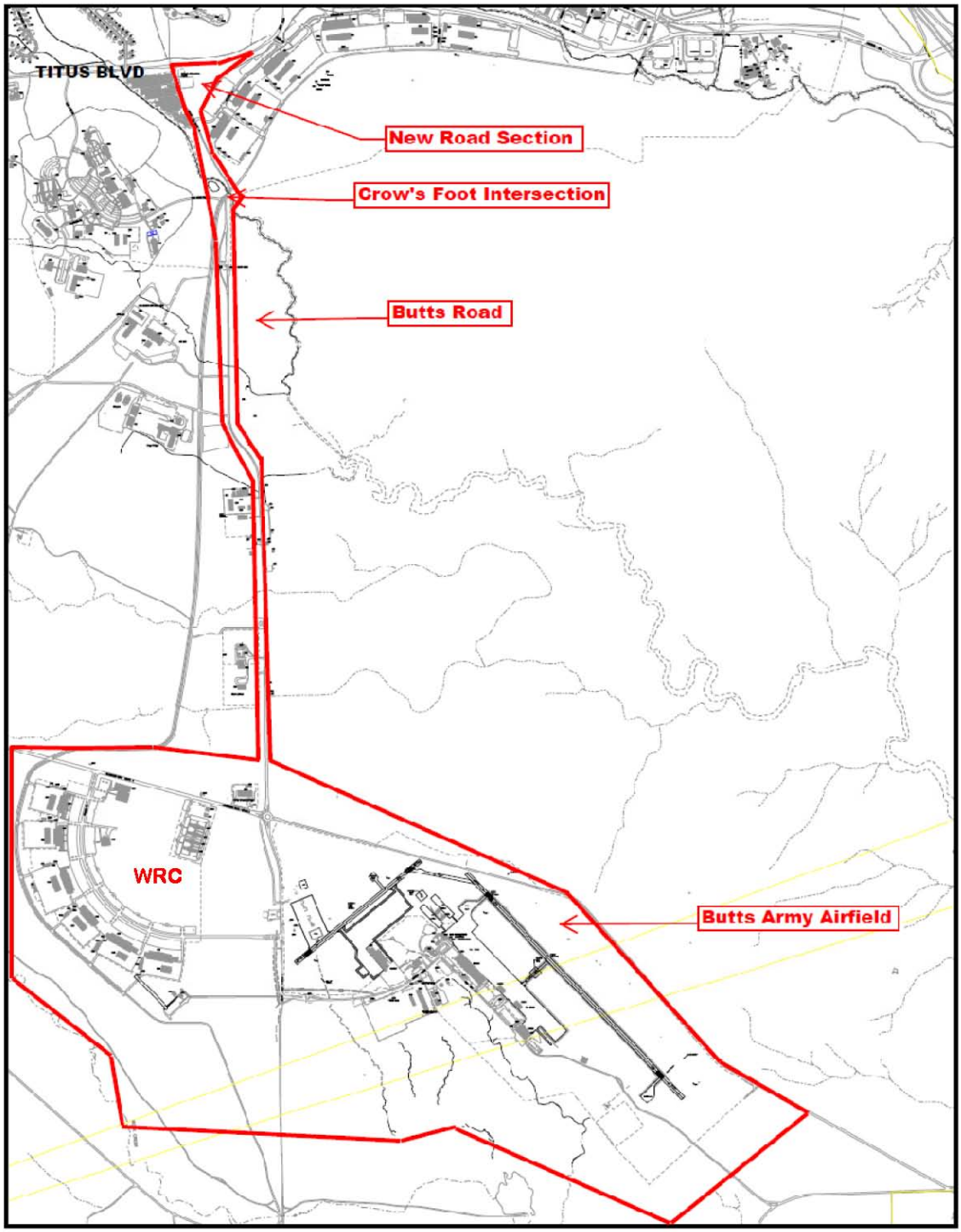


Figure 2.3-2. Construction Area in/around Wilderness Road Complex and Butts Army Airfield in Support of CAB Stationing Implementation



Figure 2.3-3. Master Site Plan for Fort Carson Wilderness Road Complex and Butts Army Airfield

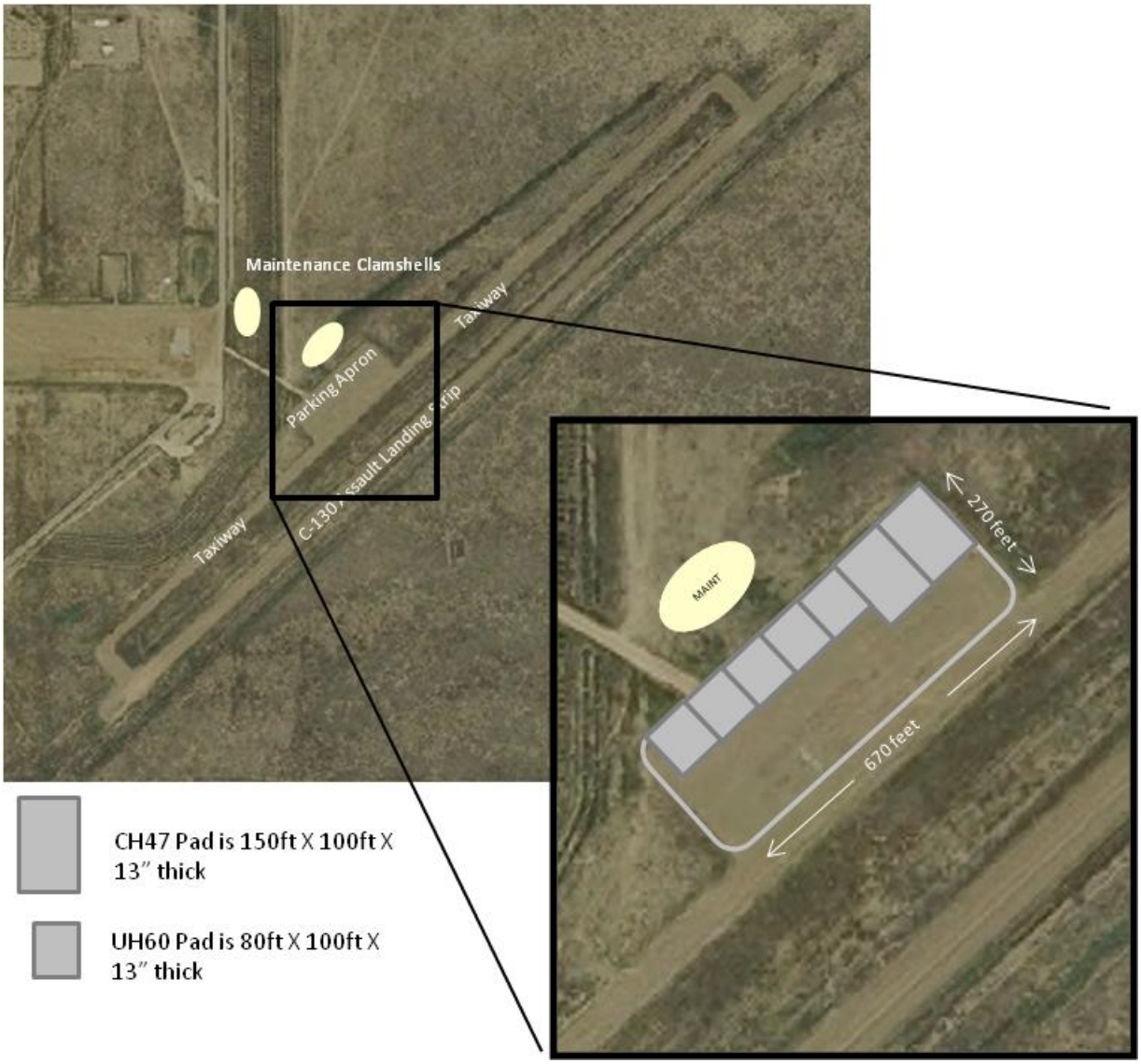


Figure 2.3-4. Concrete Pad Construction at PCMS Combat Assault Landing Strip
Note: Figures are not drawn to scale.

This Page Intentionally Left Blank.

3 SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND PROPOSED MITIGATION

This section provides a summary of the analysis presented in Chapter 4. The results of this analysis align with the conclusions on the significance of impacts contained within the 2011 *CAB Stationing ROD*.

3.1 VALUED ENVIRONMENTAL COMPONENTS AND FOCUSING THE ANALYSES

Valued Environmental Components (VECs) are categories of environmental and socioeconomic effects where categorization is conducted to enable a managed and systematic analysis of these resources. VEC categories analyzed in this EA include:

1. Land Use
2. Air Quality and Greenhouse Gases (GHG)
3. Noise
4. Geology and Soils
5. Water Resources
6. Biological Resources
7. Cultural Resources
8. Socioeconomics
9. Traffic and Transportation
10. Airspace
11. Utilities
12. Hazardous and Toxic Substances

For VEC descriptions, regulatory drivers and standards, and significance thresholds, see the 2011 *CAB Stationing PEIS*.

3.2 SUMMARY OF ENVIRONMENTAL CONSEQUENCES BY VEC

This summary is a tool to assist the Installation (including the decision maker), regulatory agencies, and the public to understand the relative impacts of the proposed action to the VECs listed in Section 3.1.

3.2.1 Impacts of Alternatives

Table 3.2-1 depicts, by VEC, both the No Action Alternative and the environmental consequences of implementing the proposed action at Fort Carson and PCMS. The No Action Alternative impacts summary reflects the baseline condition. For anticipated impacts other than "less than significant," the impact may be related to only one factor of a VEC (e.g., the generation of fugitive dust and other pollutants during construction and training, as a subset of air quality). For specific discussions of the anticipated impact(s) of each VEC identified in Table 3.2-1, see Chapter 4.

Table 3.2-1. Anticipated Direct and Indirect Impacts to Valued Environmental Components

VEC	Fort Carson		PCMS	
	No Action (Baseline Condition)	Proposed Action	No Action (Baseline Condition)	Proposed Action
Land Use	Less than significant	Less than significant	Less than significant	Less than significant
Air Quality and GHG	Mitigable to less than significant	Mitigable to less than significant	Less than significant	Less than significant
Noise	Less than significant	Less than significant	Less than significant	Less than significant
Geology and Soils	Less than significant	Mitigable to less than significant	Less than significant	Mitigable to less than significant
Water Resources	Less than significant	Less than significant	Less than significant	Less than significant
Biological Resources	Less than significant	Less than significant	Less than significant	Less than significant
Cultural Resources	Less than significant	Less than significant	Less than significant	Less than significant
Socioeconomics	Less than significant	Less than significant	Less than significant	Less than significant
Traffic and Transportation	Less than significant	Less than significant	Less than significant	Less than significant
Airspace	Less than significant	Less than significant	Less than significant	Less than significant
Utilities	Less than significant	Less than significant	Less than significant	Less than significant
Hazardous and Toxic Substances	Less than significant	Less than significant	Less than significant	Less than significant

3.2.2 Cumulative Effects

Cumulative impacts consider the cumulative effects of past, present, or reasonably foreseeable actions.

Information on future projects was presented in the 2009 *Fort Carson Grow the Army FEIS*. Table 3.2-2 identifies projects and activities at the Installation that are different than those identified in the 2009 *Fort Carson Grow the Army FEIS*.

Table 3.2-2. Projects and Activities Different than 2009 Plans

Project or Activity	Time Frame
No Longer Foreseeable or Valid Projects	
Fort Carson Lifestyle Village	N/A
Additional Integrated Brigade Combat Team that would train at Fort Carson and PCMS (part of the 2009 *Fort Carson Grow the Army FEIS* proposed action)	N/A
Future Projects at Fort Carson	
CAB associated construction including control tower, bulk fuel facility, hot refuel point, CEP, and infrastructure	FY 2012-2017
Battle Command Training Center	FY 2012
Chapel at Fort Carson	TBD
Convoy Skill Trainer	FY 2010
Special Forces Tactical Unmanned Aerial Vehicle (TUAV) Facility	FY 2012-2013
Child Development Center (2)	Long Range
Biofuel Co-generation project	potentially FY 2012
Warriors in Transition Unit Complex (Barracks/Admin)	FY 2011
Turkey Creek Fire Station [possible FY 2012 UMMCA project]	FY 2012
Medical clinic addition and alteration	FY 2012-2013
Iron Horse Park Development	FY 2012-2013
Infantry Squad Battle Course Ranges (2)	FY 2012
Net Zero Energy, Water, and Waste Projects	TBD
High Altitude Mountain Environmental Training agreement with the BLM	TBD
Rod and Gun Club	TBD
TUAV Hangar and Facility	FY 2015
Future Projects at Piñon Canyon Maneuver Site	
Vehicle Wash Facility	FY 2012
In Progress Projects at Fort Carson	
Soldiers Family Assistance Center	
Army and Air Force Exchange Service Tri-Foods	
Army and Air Force Exchange Service Post Exchange expansion	
Commissary	
Banana Belt Redevelopment	
Physical Fitness Center	
Family Housing	
Fort Carson Rail Yard Improvements	
In Progress Projects at PCMS	
4th ID is currently considering ways to avoid rail costs by storing some mechanized equipment at PCMS.	
In Progress Projects off-post	
Improvements to Drennan Rd and Academy Blvd	

The cumulative effect analyses sections in Chapter 4 are based on the combination of the impacts of implementing the CAB stationing decision and the other actions proposed or identified as past, present, or reasonably foreseeable at Fort Carson and PCMS. Table 3.2-3

provides a summary of the results of these cumulative impacts analyses by VEC for Fort Carson and PCMS.

Table 3.2-3. Anticipated Cumulative Impacts to Valued Environmental Components from CAB Stationing Implementation at Each Potential Site

VEC	Fort Carson	PCMS
Land Use	Less than significant	Less than significant
Air Quality and GHG	Less than significant	Less than significant
Noise	Mitigable to less than significant	Less than significant
Geology and Soils	Mitigable to less than significant	Mitigable to less than significant
Water Resources	Less than significant	Mitigable to less than significant
Biological Resources	Mitigable to less than significant	Mitigable to less than significant
Cultural Resources	Less than significant	Less than significant
Socioeconomics	Less than significant	Less than significant
Traffic and Transportation	Less than significant	Less than significant
Airspace	Less than significant	Less than significant
Utilities	Less than significant	Less than significant
Hazardous and Toxic Substances	Less than significant	Less than significant

3.3 PROPOSED MITIGATION

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 best management practices (BMPs) and environmental management programs to ensure environmental compliance, stewardship, and sustainability of those areas potentially impacted by CAB stationing implementation. BMPs include, for example, Army aviators abiding by noise abatement and minimum altitude restrictions in noise sensitive areas, as outlined in applicable Federal and Army aviation regulations. The Installation would continue to implement all existing mitigation measures, BMPs, and environmental management programs to minimize the impacts of CAB stationing implementation.

The Installation also proposes to adopt the specific measures at Fort Carson, identified in Table 3.3-1, and at PCMS, identified in Table 3.3-2. Mitigation measures and BMPs that are denoted with an asterisk (measure *) indicate that the measure was identified as an Army requirement in the 2011 *CAB Stationing ROD*.

Mitigation measures identified in the 2011 *CAB Stationing ROD* that have been completed and, therefore, not included in Table 3.3-1 and 3.3-2 are provided below.

- ***Fort Carson Utilities.*** The measure was: "Conduct a study evaluating the capacity of sanitary sewer lines and lift stations providing service for CAB infrastructure." This study was completed in February 2011 (USAPHC, 2011) and appropriate recommendations have been incorporated into Section 4.12 of this EA.
- ***Fort Carson Utilities.*** The measure was: "Continue to implement recommendations of the 2006 Wastewater Treatment Plant (WWTP) Capacity Evaluation, which includes aeration system and equalization basin channel improvements." The recommended upgrades from the 2006 WWTP Capacity Evaluation have been completed.
- ***Fort Carson and PCMS Biological Resources.*** The measure was: "Study the impacts of aircraft training on breeding raptor populations and develop and implement mitigation strategies based on results, as appropriate." After further review, it was determined additional studies were in fact not necessary. The Installation has a current process in place by which eagle nesting areas are tracked and active nests (eyries) are identified. Active nests are protected within a 0.5 mile radius in which aviation operations are prohibited. Also prohibited are contractor, construction, and recreation activities.

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
Land Use		
• Adding more units and troops would create more demand for already limited training areas. • Increased training may result in reduced hunting opportunities.	• Continue to support Goal 11 – Training Lands objectives and targets of the Installation's 25 Year Sustainability Goals in 2002. • Units, G-3, and Range Control facilitate training area workarounds to meet training and mission requirements.	• Consult with the public and Colorado Parks and Wildlife (CPW) to maximize public hunting opportunities.*
Air Quality and GHG		
• Increased vehicular emissions on-post and off-post associated with additional personnel traveling around the Installation and in the surrounding region.	• Continue pursuing alternative transportation methods through collaboration with the City of Colorado Springs Mountain Metropolitan Transit, Pikes Peak Area Council of Governments, and other organizations to encourage transit ridership and carpooling to reduce vehicle travel miles. • Continue to support Goal 5 – Zero hazardous air pollutant (HAP) objectives and targets of the Installation's 25 Year Sustainability Goals in 2002.	• None identified.
• Increased emissions associated with the Annual Prescribed Burn Program. (Prescribed Burn Program is influenced by environmental conditions and the level of training conducted.)	• Comply with the Installation Prescribed Fire Management Plan to limit adverse effects of prescribed burns. • Continue to support Goal 5 – Zero HAP objectives and targets of the Installation's 25 Year Sustainability Goals in 2002.	• None identified.
• Additional training could result in impacts to air quality from increased fugitive dust from more frequent off-road vehicle travel and aviation operations.	• All training activities are subject to the Installation's Fugitive Dust Control Plan. Military convoys must comply with a lower speed limit than regular traffic. The Installation applies chemical stabilizer (dust palliative) to vehicle two tracks parallel to Interstate- (I-) 25 and State Highway (SH) 115, as well as to unpaved areas within the Main Post and downrange areas.	• None identified.

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
• Construction of facilities would result in impacts to air quality from exhaust emissions from construction equipment, fugitive dust from construction activities, and additional vehicle trips by construction workers. Construction impacts would be short-term and limited to the duration and area of construction activities.	• All construction activities are subject to the Installation's Fugitive Dust Control Plan. Site-specific dust control plans are required for all projects greater than 25 acres (10 ha) or disturbed for 6 months or longer (state permit). Implementation of BMPs, including dust suppression and establishment of speed limits in construction areas. Use of low sulfur diesel fuel to reduce sulfur oxide (SO_x) emissions. • Continue to support Goal 5 – Zero HAP objectives and targets of the Installation's 25 Year Sustainability Goals in 2002.	• As available, practical, and affordable, use ultra low sulfur diesel fuel to further reduce SO_x emissions in equipment engines.* • Update Title V Permit within 12 months of finalizing construction permits.*
• Increased fugitive emissions from facility construction could impact Fort Carson's status as an area source for HAPs and trigger major source status.	• Track all construction products including paints, thinners, sealers, coatings, adhesives, and similar to determine insignificant source contributions. • Continue to support Goal 5 – Zero HAP objectives and targets of the Installation's 25 Year Sustainability Goals in 2002.	• If feasible, include language for contractors to submit Material Safety Data Sheets for all construction products used, with amounts and units to the Installation's Air Program to determine emissions estimates. Encourage use of Leadership in Energy and Environmental Design (LEED®) system to limit HAPs and volatile organic compound (VOC) emissions by specifying Green Seal certification or similar product rating.* • Use dust palliatives with longer effective life spans than currently used chemical stabilizers.*

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
• Operation of additional combustion sources has the potential to result in impacts to air quality emissions from proposed stationary sources.	• Installation of low nitrogen oxide (NO_x) burner systems for all boilers and hot water heaters to reduce emissions.	• Limit the use of indirect fired Make-Up Air Unit for stationary source heating, ventilating, and air conditioning (HVAC). Prior design and construction consideration and coordination with the Installation Air Program would be required before specifying these units to ensure Prevention of Significant Deterioration (PSD) limits are not exceeded. Include similar coordination language in construction contracts as feasible.* • Ensure internal combustion units (e.g., emergency generators) purchased for CAB facilities and equipment meet the Emission Limit Tier Standard as defined by New Source Performance Standards IIII, specifically Subpart JJJJ for newly purchased spark ignition and Subpart Dc for newly purchased boilers.
• Increased GHG emissions generated as a result of CAB stationing.	• Continue to support Goal 5 – Zero HAP objectives and targets of the Installation's 25 Year Sustainability Goals in 2002. • In accordance with (IAW) the Energy Policy Act of 2005, Executive Order (EO) 13423, the National Defense Authorization Act (NDAA) of 2007, and DoD policy, continue to reduce energy consumption and reliance on fossil fuels while increasing the amount of energy derived from renewable sources.	• None identified.
Noise		
• Aircraft noise generated from helicopters.	• Continue to implement the Installation "Fly Neighborly" program, which works to lessen the noise aircraft produce when flying in developed areas. • Continue to implement the Army Compatible Use Buffer (ACUB) Program to maximum extent possible to reduce, or limit increases in, development around Fort Carson that would be incompatible with aircraft noise. • Adhere to the Installation's flight regulations and Installation Environmental Noise Management Plan guidelines and procedures for noise abatement practices.	• Installation G-3 and Range Control schedule and coordinate aviation training to reduce noise impacts on- and off-post.*

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
• Increased munitions use by CAB units to support aviation gunnery and individual qualifications.	• Continue to implement the ACUB Program to maximum extent possible to reduce, or limit increases in, development around Fort Carson that would be incompatible with weapons noise. • Adhere to Installation Environmental Noise Management Plan guidelines and procedures.	• None identified.
• Increased exposure to Noise Zone II in barracks, and other noise-sensitive receptors.	• Adhere to the Installation's flight regulations and Installation Environmental Noise Management Plan guidelines and procedures for noise abatement practices.	• Integrate, to the extent practical and affordable, noise mitigation techniques into construction of noise sensitive facilities (e.g., brick/masonry construction, increased thermal insulation, sealing cracks, and spaces between wall layers). Noise mitigation techniques for construction are described in the Installation Environmental Noise Management Plan.*
Geology and Soils		
• Potential construction site instability. Constructing facilities outside of known geologically stable areas.	• Site-specific geotechnical analyses, in conjunction with area research and additional borings conducted.	• None identified.
• Temporary increase in potential for sedimentation and erosion due to ground disturbance associated with construction and demolition projects.	• Adhere to Stormwater Pollution Prevention Plan (SWPPP) and Municipal Separate Storm Sewer System (MS4) requirements, which include BMPs to maintain drainages and restore vegetative cover on the construction site as quickly as would be practicable. • Continue methods described in the Integrated Natural Resources Management Plan (INRMP) and Section 404 regional permit for erosion control methods.	• None identified.
• Accelerated soil erosion in training areas from increased flight activity and ground support units.	• Fund and implement land management practices and procedures described in the Integrated Training Area Management (ITAM) annual work plan to reduce erosion and geologic impacts. • Adhere to MS4 requirements.	• Increase ITAM program activities to address additional erosion from CAB training on vehicle two tracks and within existing training areas.*

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
• Erosion of range access roads.	• Maintain range roads and vehicle two tracks to minimize erosion IAW ITAM and facilities management program requirements. • Adhere to MS4 requirements.	• Increase levels of Installation sustainment funding to address increased levels of wear and tear on roads.*
Water Resources		
• Construction of facilities could result in stormwater runoff from land disturbance, hazardous substances storage, and discharges of non-stormwater from the site. Construction impacts would be short-term and limited to the duration of construction activities; however, the extent of impacts may go beyond the project site boundary.	• Pursuant to provisions in the Clean Water Act (CWA), work being performed at the Installation that disturbs 1 acre (0.40 ha) or more is subject to coverage under the U.S. Environmental Protection Agency's (EPA) Construction General Permit number COR12000F. IAW permit conditions, project proponents must submit a Notice of Intent (NOI) to EPA and develop and implement a SWPPP for each project that includes mitigation strategies to reduce impacts associated with stormwater runoff during construction. • Continue coordinating with the U.S. Army Corps of Engineers (USACE) for Section 404 compliance.* • Continue use of BMPs. • Continue to manage hazardous materials IAW applicable Installation regulations and management plans. These include: Fort Carson Regulation 200-1, Pollution Prevention (P2) Plan, Spill Prevention, Control, and Countermeasures Plan (SPCCP), and Hazardous Waste Management Plan (HWMP).	• Use of Low-Impact Development practices.*
Biological Resources		
• Loss of habitat due to construction.	• Minimize construction site footprint. • Adhere to SWPPP and MS4 requirements, which include BMPs to maintain drainages and restore vegetative cover on the construction site as quickly as would be practicable. • Continue recommendations outlined in management plans and the INRMP.	• None identified.

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
• Increase in nuisance species in vicinity of CAB facility sets.	• Limit construction of administrative and operational facilities in natural wildlife corridors. • Continue to educate Soldiers and civilians through venues such as Mayor and Town Hall meetings, Environmental Protection Officer course, National Night Out, and Safety Days. • Use solid waste disposal practices that limit access by wildlife.	• Use design mitigation techniques in facilities in order to minimize nuisance species habitat and reduce potential hazardous interactions between people and wildlife. Use xeriscaping or other habitat denial techniques.* • Use bear-proof dumpsters where necessary.*
• Increase in bird airstrikes in/around BAAF and from increased aviation training.	• Limit nuisance species habitats in vicinity of airfields. • Exclude and/or relocate nuisance species from BAAF vicinity.	• Complete the wildlife hazard assessment and preparation of the BASH Plan. Implement appropriate mitigation measures as indicated in the plan.* • Reduce nuisance wildlife habitat through design mitigation and bear-proofing dumpsters.*
• Increased disturbance to breeding raptors.	• Continue to implement INRMP and Bald Eagle Management Plan. • Continue to prevent breeding season fires from encroaching on breeding habitat by burning adjacent areas in late winter or early spring. • Continue to retrofit utility systems with avian protection devices and follow practices outlined in the Avian Protection Plan Guidelines.	• Establish buffer zones around nests in which human activity is curtailed or reduced.*
• Increased vehicular collisions with deer and other wildlife.	• Limit construction of administrative and operational facilities within vicinities of natural wildlife corridors. • Use lower speed limits in downrange areas to reduce safety and environmental hazards.	• Adjust speed limit and erect deer hazard signage (or wildlife hazard signage) on Wilderness Road as appropriate to minimize collisions.* • Increase speed limit enforcement efforts on Wilderness Road.*

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
• Increase in hazardous wildlife such as black bear, mountain lions, coyotes, and venomous snakes, as well as the potential spread of plague and hantavirus.	• Limit construction of administrative and operational facilities within vicinities of natural wildlife corridors. • Limit Soldier exposure to areas known to be frequented by hazardous wildlife or identified to potentially contain the plague and/or hantavirus. • Continue BMPs (land restrictions and habitat restoration based upon identifying and prioritizing critical areas and resources, maintain ecologically healthy grasslands, and development of water resources). • Continue to educate Soldiers and civilians on wildlife and their inherent risks. • Continue rodent control and removal of diseased prairie dogs, as necessary and per approved processes.	• Use bear-proof dumpsters where necessary. Use native vegetation that is not attractive to wildlife in landscaping.*
• Increased impacts to big game populations from aviation training and other disturbance.	• Repair and maintenance of existing water sources and development of new sites on the Installation providing a water source for deer, pronghorn, and elk temporarily displaced. • Continue support of on-going studies to improve placement and to monitor effectiveness of water guzzlers. • Prescribed fire to rejuvenate habitat. • Seeding with native species/food sources.	• None Identified.

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
• Damage to vegetation and subsequent increase in noxious weed infestations due to more frequent tactical vehicle use and aviation training.	• Continue to manage training lands IAW the Installation's ITAM, INRMP, Invasive Species Management Plan, and program requirements. • Continue to employ integrated weed management strategies (biological, chemical, cultural, and physical/mechanical control techniques). • Continue to eradicate all Colorado List A species when found. • Conduct mission activities in a manner that precludes the introduction or spread of invasive species. • Continue procedures for cleaning vehicles and equipment prior to shipment from one location to another, deployment, and/or redeployment.	• Increase use of herbicide and bio-control agents and of certified week-free seeds when and where appropriate, as determined by the Installation Noxious Weed Management Team.*
• Impacts on sensitive species from construction, maintenance, and training activities.	• Survey and monitor sensitive species habitat and conduct construction, maintenance, and training activities IAW the INRMP, which describes appropriate species management and impact mitigation techniques.	• None identified.
• Accidental wildfires caused by live-fire and maneuver training.	• Continue prescribed burning to create buffer areas and reduce fuel loads. • Continue to update the Installation's annual Fire and Emergency Services Prescribed Fire Plan. • The Installation's fire response teams would continue to be available to respond to wildland fires. • The Army would continue to comply with cooperative agreements with the Colorado Springs Fire Department and U.S. Forest Service (USFS). • Continue with Burned Area Emergency Response/Rehabilitation (BAER) efforts.	• None identified.

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
Cultural Resources		
• Potential adverse impacts to cultural properties from renovation or new construction.	• The Installation's cultural resource program would continue to maintain cultural resources sustainability through existing management and procedures and policies (e.g., Integrated Cultural Resources Management Plan [ICRMP]) in coordination and development with the COSHPO and all Tribal Historic Preservation Officers. Current procedures include evaluation of all cultural resources for National Register of Historic Places (NRHP) eligibility and continued consultations with Native American tribes to identify and evaluate traditional cultural properties (TCP) and sacred sites. • BMPs are used during project design and planning to avoid or minimize effects to all cultural sites. If a potential impact cannot be avoided, consultation with the COSHPO, Tribal Historic Preservation Officers, Native American tribes, and other interested parties would be initiated. • If subsurface cultural resources are discovered or disturbed during construction, the Installation's Inadvertent Discovery of Archaeological Resources or Burials Standard Operating Procedures (SOPs) or Native American Graves Protection and Repatriation Act (NAGRPA) SOPs and appropriate Section 106 consultation would be implemented.*	• None identified.

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
• Potential loss of unrecorded archaeological resources during construction and training activities.	• Unsurveyed areas required for military use would be surveyed, and resources identified during survey would be evaluated for NRHP eligibility according to the Secretary of the Interior's Standards for Archaeology and Historic Preservation, as well as applicable Colorado standards. • The Installation would continue development and implementation of the cultural resources education and awareness programs for Army personnel, Families, civilians, and the public to enhance the conservation of historic properties on Installation lands. • Until a Programmatic Agreement (PA) is established that enables a revised process, continue to implement the National Historic Preservation Act (NHPA) Section 106 requirements for training activities that constitute an undertaking as defined by 36 CFR 800.16(y) prior to each training activity to ensure that the Army considers ways to avoid, minimize, or mitigate adverse effects. • If subsurface cultural resources are discovered or disturbed during construction, the Installation's Inadvertent Discovery of Archaeological Resources or Burials SOPs or Native American Graves Protection and Repatriation Act (NAGRPA) SOPs and appropriate Section 106 consultation would be implemented.* • Continued implementation of the ICRMP.	• None identified.
• Potential adverse impacts to cultural resources resulting from accidental wildfires caused by live-fire and maneuver training.	• The Army would continue to comply with cooperative agreements with the Colorado Springs Fire Department and USFS. • Continue with BAER efforts.	• None identified.

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
Socioeconomics		
• Minor temporary economic benefits to region of influence (ROI) associated with construction expenditures and employment. • Minor long-term economic benefits associated with population increases such as increased sales volume, employment, and income in the ROI.	• Mitigation is not required as these impacts are favorable but not significant.	• None identified.
• Increased housing demand for Fort Carson personnel.	• Construct additional on-post housing. • Private construction is taking place in the off-post housing market to satisfy the increased demand.	• None identified.
• Increased student population in area school districts.	• Federal impact aid is provided on a per-student basis as an offset for the costs incurred by civilian school districts.	• None identified.
• Increased demand for hospital space and medical professionals.	• Increase capacity of Evans Hospital to accommodate additional staff and patients.	• None identified.
• Additional Soldiers and their Families would require more on-post services.	• The Army would continue to plan for additional facilities to support Soldier services.	• Installation would receive increased funding to maintain facilities (subject to availability of yearly funding).*
• Additional Soldiers and their Families would generate additional demand for off-post recreation and services.	• The services provided through the private sector can be expected to respond to the increased demand by increasing supply.	• The demand for facilities may be moderated by use of new on-post facilities.*
• Potential increase in safety risk to children at construction sites.	• Continue safety measures outlined in 29 CFR Part 1926, *Safety and Health Regulation for Construction* and follow other applicable regulations and guidance.	• Barriers and no trespassing signs would be placed around construction sites to deter children from playing in these areas and construction vehicles, equipment, and materials stored in fenced areas and secured when not in use.*

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
Traffic and Transportation		
• Increased demand at Access Control Points (ACPs) and additional traffic congestion throughout major roadway networks on the Installation.	• Alternative transportation modes are being explored in traffic demand management and low impact vehicle studies. • Continue to support Goal 2 – Sustainable Transportation objectives and targets of the Installation's 25 Year Sustainability Goals in 2002, regulations which outline policies and procedures for noise abatement, minimum altitudes, and designate routes to and from PCMS.	• Continue to use the Installation Comprehensive Transportation Study 2008 Update Action Plan, as amended and updated, to review and implement necessary roadway improvements.* • Continue to activate and expand gates, as appropriate, to absorb additional traffic entering and leaving the Installation.* • Continue to implement alternative transportation modes as appropriate.* • Evaluate and consider providing additional bus routes and more frequent bus service.*
• On-post roadway closure due to construction activities.	• None identified.	• Use of traffic control procedures, including flaggers and posted detours to minimize impacts to traffic flow.* • Minimize construction vehicle movement during peak rush hours on the Installation and placing construction staging areas in optimal locations to minimize traffic within administrative, housing, and school areas.*
Airspace		
• Increased use of airspace to and from PCMS.	• Installation G-3 and Range Control schedule and coordinate aviation training to reduce noise impacts. • Army aviators would adhere to the Installation's flight regulations, which outline policies and procedures for noise abatement, minimum altitudes, and designate routes to and from PCMS.	• None identified.

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
Utilities		
• Increased personnel and Family members at Fort Carson and in Colorado Springs would increase pressure on current water supplies from Colorado Springs Utilities.	• Implement planned upgrades to existing water lines. • Continue cooperative efforts with the surrounding communities. • Continue to implement water use reduction measures such as low-flow toilets and waterless urinals, xeriscaping, and use of grey water for irrigation. • Continue to support Goal 1 – Energy and Water, objectives and targets of the Installation's 25 Year Sustainability Goals in 2002.	• None identified.
• Additional wastewater generation from administrative and operational activities.	• None identified.	• Upgraded capacity and extend existing sanitary sewer lines are part of the proposed action.*
• Increased production of industrial wastewater.	• None identified.	• Conduct a study evaluating the capacity of sanitary sewer lines and lift stations providing service for CAB infrastructure.* (Draft Wastewater Study, No. 32-EE-OFB4-12 Lift Station, Fort Carson, November 2011 is in process of being finalized and appropriate recommendations have been incorporated into Section 4.12 of this EA) (USAPHC, 2011). • New industrial wastewater lines would be installed along Butts Road and along the southern portion of the WRC as part of the proposed action.*

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
• Construction of facilities could result in stormwater runoff from land disturbance, hazardous substances storage, and discharges of non-stormwater from the site. Construction impacts would be short-term and limited to the duration of construction activities; however, the extent of impacts may go beyond the project site boundary.	• Pursuant to provisions in the CWA, work being performed at the Installation that disturbs 1 acre (0.40 ha) or more is subject to coverage under the EPA's Construction General Permit number COR12000F. IAW permit conditions, project proponents must submit a NOI to EPA and develop and implement a SWPPP for each project that includes mitigation strategies to reduce impacts associated with stormwater runoff during construction. • Continue use of BMPs. • Continue to manage hazardous materials IAW applicable Installation regulations and management plans. These include: Fort Carson Regulation 200-1, P2 Plan, SPCCP, and HWMP.	• Use of Low-Impact Development practices to minimize stormwater impacts.*
• Design and construction of facilities could result in impacts to Fort Carson's stormwater drainage system from sediment and other non-stormwater discharges and inadequate design of permanent stormwater controls.	• Fort Carson is an MS4 permitted facility. Therefore, any land disturbance on Fort Carson is subject to the terms of Fort Carson's Final Stormwater Management Plan (SWMP) in order to help mitigate negative impacts to water quality. • Continue to support Goal 1 – Energy and Water objectives and targets of the Installation's 25 Year Sustainability Goals in 2002.	• None identified.
• Solid waste generation would increase with additional personnel.	• Solid wastes and recyclable materials would continue to be managed IAW the existing Integrated Solid Waste Management Team (ISWMP) and P2 Plan.	• None identified.
• Increased energy consumption due to construction of additional facilities.	• Follow Installation Design Guide for construction. Require the achievement of LEED® Silver on all new construction. • Continue to support Goal 1 – Energy and Water, and Goal 7 – Platinum Buildings objectives and targets of the Installation's 25 Year Sustainability Goals in 2002.	• Develop a CEP to replace individual heating and cooling units at every CAB facility structure with a centrally controlled and balanced plant. If economically feasible, develop the central plant, which would initially use natural gas for fuel, so that it could be transitioned to run alternate fuels in the future.

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
• Increased peak electrical and natural gas demands.	• Follow Installation Design Guide for construction. Require the achievement of LEED® Silver on all new construction. • Continue to provide energy management training to Soldiers through the Building Energy Manager course. • Continue to inspect units, directorates, and tenants in regard to energy use and conformance with Fort Carson Regulation 200-1. • Continue to support Goal 1 – Energy and Water, and Goal 7 – Platinum Buildings objectives and targets of the Installation's 25 Year Sustainability Goals in 2002.	• Construction of utilities infrastructure to satisfy the increased demand is part of the proposed action.* • Require all facilities be connected to the Energy Management Control System to allow for remotely controlling HVAC systems to the extent practical and affordable.* • Investigate and implement the use of renewable resources in new construction to reduce the demand for natural gas and electricity and increase use of renewable energy.*
• Construction of electrical, gas and fiber optic line upgrades would disturb soil and vegetation within construction footprint in vicinity of the WRC site.	• All new electric and gas lines are buried underground, and disturbed areas are graded and reseeded after construction to stabilize the soil.	• None identified.
Hazardous and Toxic Substances		
• Demolition of existing facilities would require proper removal and disposal of asbestos containing materials (ACMs), lead-based paints (LBPs), and polychlorinated biphenyls (PCBs).	• Continue to comply with asbestos and lead national emission standard for HAPs as well as Toxic Substances and Control Act (TSCA) requirements by adhering to applicable permits and the following Installation management plans: Lead Management Plan, Asbestos Management Plan, Fugitive Dust Control Plan, and PCB Management Plan.	• None identified.
• Exposure to petroleum contaminated soil at BAAF (1986 release of unleaded fuel, est. at 10,500 gallons) may occur as a result of construction adjacent to the footprint of the former hot refueling pad and former Building 9648.	• Site closure has been requested through the Colorado Division of Oil and Public Safety.	• Quarterly groundwater monitoring and reporting of contaminant concentrations in groundwater until closure is completed at former hot refueling pad and former Building 9648.*

Table 3.3-1. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Fort Carson

Impact by Resource at Fort Carson	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
• Hazardous materials use and potential releases would increase commensurately with personnel and equipment.	• Continue to manage hazardous materials IAW Hazardous Materials Control Center (HMCC) and applicable Installation regulations and management plans. These include: the Fort Carson Regulation 200-1, P2 Plan, SPCCP, and HWMP. • Continue to implement the Ammunition Supply Point (ASP) SOP for storage and transportation of additional munitions. • Designated Installation Explosives Ordnance Detachment would continue to respond to discoveries of unexploded ordnance (UXO) for safe open detonation either in place or at Range 121.	• Update the SPCCP and acquire additional spill response equipment to prepare for spill responses that could potentially occur with CAB operations.*
• Increased UXO generation as a result of additional live-fire training CAB units.	• Continue to implement management plans and SOPs for munitions handling, UXO removal, and maintenance and management of vegetation in impact areas to preclude surface water or wind transport.	• None identified.
• Potential exposure to elevated radon levels in buildings.	• Install radon mitigation systems in buildings with radon levels 4 picocuries per liter (pCi/L) or higher. Retest to confirm radon values are at an acceptable level.	• Construct new facilities to incorporate design mitigation techniques in areas with elevated radon levels IAW the Installation's Radon Management Plan.*

*Mitigation measures and BMPs indicate that the measure was identified as an Army requirement in the 2011 *CAB Stationing ROD*.

Table 3.3-2. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Piñon Canyon Maneuver Site

Impact by Resource at PCMS	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
Land Use		
• Increased training may result in reduced hunting opportunities.	• None identified.	• Consult with the public and Colorado Division of Wildlife (CDOW) to maximize public hunting opportunities.*
Air Quality and GHG		
• Increased fugitive dust emissions from increased training.	• All training activities are subject to Fort Carson and PCMS Fugitive Dust Control Plan. Military convoys must comply with a lower speed limit than regular traffic. • The Installation applies chemical stabilizer to vehicle two tracks.	• Collect additional data on impacts of fugitive dust generation and implement additional control measures as required.* • Use dust palliatives with longer effective life spans than currently used chemical stabilizers.* • IAW the Energy Policy Act of 2005, EO 13423, the NDAA of 2007, and DoD policy, continue to reduce energy consumption and reliance on fossil fuels while increasing the amount of energy derived from renewable sources.*
Noise		
• Noise from increased use of small arms ranges and live-fire ranges and increased aviation training of potential CAB.	• Continue to implement Installation “Fly Neighborly” program, which works to lessen the noise aircraft produce when flying in developed areas. • Adhere to the Installation’s flight regulations and Installation Environmental Noise Management Plan guidelines and procedures for noise abatement practices.	• Installation G-3 and Range Control schedule and coordinate aviation training to reduce noise impacts to Installation facilities.*

Table 3.3-2. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Piñon Canyon Maneuver Site

Impact by Resource at PCMS	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
Geology and Soils		
• Increased soil erosion from maneuver and increased helicopter training of potential CAB.	• Continue to fund and implement the ITAM annual work plan and INRMP to reduce soil erosion and maintain sustainable use of its training areas. ITAM would continue to implement erosion management measures, site restoration, and continue to monitor training areas to mitigate damage from unit training. • Continue to limit soil erosion by designating no-dig areas around drainages feeding the Purgatoire River and restricting mounted maneuver in areas susceptible to water erosion in the canyon drainage and northern training areas. • Continue to take measures to reduce the potential for wild fires. Prescribed burning and other measures would continue to be used to prevent fires and limit their severity when they do occur. • Continue to educate Soldiers on fire prevention procedures prior to conducting maneuver training at PCMS and require Soldiers to have a minimum amount of firefighting equipment on hand to extinguish small fires during maneuver training. • Maintain range roads and vehicle two tracks and continued use of dust palliatives to minimize erosion.	• Fund additional land rehabilitation projects necessary to control erosion impacts of additional training.* • Create hardened designated landing areas, as necessary and appropriate, to limit soil erosion and sedimentation impacts.*
Water Resources		
• Increased impacts to stormwater runoff from land disturbance.	• Continued use of erosion control dams, reseeding, and other BMPs as required in the ITAM Annual Work Plan and INRMP.	• Complete development of a SWMP for PCMS.*

Table 3.3-2. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Piñon Canyon Maneuver Site

Impact by Resource at PCMS	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
Biological Resources		
• Impacts to biological resources, including destruction of sensitive species habitat, wetlands, and noxious weed infestation, from military training. • Impacts on sensitive species from training activities. • Damage to vegetation and subsequent increase in noxious weed infestations due to more frequent tactical vehicle use. • Increased impacts to big game populations from disturbance/training.	• Continue to comply with all laws, regulations and Army policies governing natural resource protection. • Continue to comply with Fort Carson/PCMS regional permit (or other permit as necessary), identified by the Section 404 process. • Continue to manage training lands IAW the Installation's ITAM, INRMP, and Invasive Species Management Plan and program requirements. • Survey and monitor sensitive species habitat and conduct maintenance and training activities IAW the INRMP. • Continue the practice of installing all new and replacement electric lines underground. • Buffer areas around raptor nesting sites. Disturbance activities (e.g., mowing, prescribed burns) are restricted during nesting seasons. • Repair and maintenance of existing water sources and development of new sites on the Installation providing a water source for deer, pronghorn, and elk temporarily displaced. • Prescribed fire to rejuvenate habitat. • Seeding with native species/food sources.	• Increased herbicide and biocontrol agents would be used when and where appropriate, as determined by the Installation Noxious Weed Management Team.*
• Accidental wildfires caused by live-fire and maneuver training.	• The Army would continue to comply with cooperative agreements with the USFS and other agencies. • Continue with BAER efforts.	• None identified.

Table 3.3-2. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Piñon Canyon Maneuver Site

Impact by Resource at PCMS	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
Cultural Resources		
• Potential loss of unrecorded archaeological resources during training activities. • Potential impacts to archaeological resources during increased training activities.	• The Installation's cultural resource program would continue to maintain cultural resources sustainability through existing management and procedures and policies (e.g., ICRMP) in coordination and development with the COSHPO and all Tribal Historic Preservation Officers. Current procedures include evaluation of all cultural resources for NRHP eligibility and continued consultations with Native American tribes to identify and evaluate TCPs and sacred sites. • BMPs during project design and planning would be used to avoid or minimize effects to all cultural sites. If a potential impact cannot be avoided, consultation with the COSHPO, Native American tribes, and other interested parties would be initiated.	• None identified.
• Potential impact to the Santa Fe Trail from increased low-level flight operations training along Route Hawk.	• The Installation's cultural resource program would continue to maintain cultural resources sustainability through existing management and procedures and policies (e.g., ICRMP) in coordination and development with the COSHPO and all Tribal Historic Preservation Officers.	• Modify Route Hawk by shifting southward the H7 to H8 leg of the route (as depicted in the 2006 map of Route Hawk), a leg which runs approximately parallel and in close proximity to the Santa Fe Trail, U. S. Highway (US) 350, and the PCMS boundary, such that the majority of that segment of the route is flown over PCMS.
Socioeconomics		
• Potential economic benefit to ROI.	• Mitigation is not required as these impacts are favorable but not significant.	• Investigate ways to further enhance favorable economic benefit such as increase spending locally, and educate local businesses in government contracting processes. Additionally, explore contractual methods to buy locally whenever possible and feasible.*
Transportation		
• Increased convoy traffic.	• Continue to schedule convoys to PCMS during off-peak road usage times. Continue to break larger convoys into smaller numbers of vehicles travelling together to facilitate traffic flow.	• None identified.

Table 3.3-2. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Piñon Canyon Maneuver Site

Impact by Resource at PCMS	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
Airspace		
• Increased use of flight corridors to and from PCMS.	• Installation G-3 and Range Control schedule and coordinate aviation training to reduce noise impacts. • Army aviators would adhere to the Installation's flight regulations, which outline policies and procedures for noise abatement and minimum altitudes; flight regulations would be re-evaluated to identify external sensitive noise receptors.	• None identified.
Utilities		
• Increased water usage.	• Continue to monitor main water line from the City of Trinidad for necessary repairs.	• None identified.
• Increased impacts to stormwater runoff from land disturbance.	• Continued use of erosion control dams, reseeding, and other BMPs as required in the ITAM Annual Work Plan and INRMP.	• Develop a SWMP for PCMS to assist in developing management recommendations for water resources in and around PCMS.*
• Increased solid waste generation with additional training activities.	• Continued waste pickup would be managed via private contractor and disposed of in permanent disposal facilities. • Continue to support Goal 10 – Zero Waste objectives and targets of the Installation's 25 Year Sustainability Goals in 2002.	• None identified.
• Increased use of heating fuel and propane due to increased facilities use.	• Continue to support Goal 1 – Energy and Water objectives and targets of the Installation's 25 Year Sustainability Goals in 2002. • IAW the Energy Policy Act of 2005, EO 13423, the NDAA of 2007, and DoD policy, continue to reduce energy consumption and reliance on fossil fuels while increasing the amount of energy derived from renewable sources.	• None identified.
Hazardous and Toxic Substances		
• Increased use of hazardous materials.	• Continue to follow Federal, state and Army regulations (AR) for the use, removal, and disposal of regulated materials.	• None identified.

Table 3.3-2. Additional Mitigation and Best Management Practices for CAB Stationing Implementation at Piñon Canyon Maneuver Site

Impact by Resource at PCMS	Existing Mitigation Measure	Proposed Additional Mitigation and BMPs
• Increased accumulation of lead in soils on firing ranges.	• Continue to implement ITAM and re-vegetation programs following maneuver and live-fire training activities at PCMS to reduce the ability of lead to migrate from firing ranges. Re-vegetation would occur with grasses and vegetation that would stand up to small arms range use and also minimize the impact of range fires.	• None identified.

*Mitigation measures and BMPs indicate that the measure was identified as an Army requirement in the 2011 *CAB Stationing ROD*.

This Page Intentionally Left Blank.

4 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

Analysis of potential impacts of implementing the stationing of a CAB at Fort Carson, with training operations projected for both Fort Carson and PCMS, are provided in the following sections. Per Section 3.1, each section in Chapter 4 addresses one of 12 VECs, which are categories of environmental and socioeconomic effects to enable a managed and systematic analysis of these resources.

This Page Intentionally Left Blank.

4.2 LAND USE

4.2.1 Affected Environment

4.2.1.1 Fort Carson

4.2.1.1.1 Location and Size

Fort Carson is located in central Colorado at the foot of the Rocky Mountains and occupies portions of El Paso, Fremont, and Pueblo counties (see Figure 1.2-1). The Installation is bounded by SH-115 on the west and Interstate (I-) 25 and mixed development to the east. Colorado Springs and Denver lie approximately 8 miles (13 kilometers [km]) and 75 miles (121 km), respectively, to the north; while the city of Pueblo is located approximately 35 miles (56 km) south of the Main Post area.

Fort Carson covers approximately 137,000 acres (55,442 ha), and extends between 2 and 15 miles (3 and 24 km), east to west, and approximately 24 miles (39 km), north to south. The Main Post, located in the northern portion of the Installation, covers approximately 6,000 acres (2,428 ha). Of Fort Carson's total acreage, more than half provides maneuver land suited for vehicle and non-vehicular military training (HDQA, 2011a).

4.2.1.1.2 On-Post Land Use

The on-post land use, affected environment remains consistent with that described in the 2011 *CAB Stationing PEIS*, with the primary difference being the labeling of the area west of BAAF. As previously stated in Section 2.3.4, the area previously referred to as in the vicinity of the ORTC is now referred to as the WRC.

4.2.1.1.3 Surrounding Off-Post Land Uses/Regional Land Use Planning

The off-post land use, affected environment remains consistent with that described in the 2011 *CAB Stationing PEIS*.

The goal of the Installation's Army Compatible Use Buffer (ACUB) program is to buffer the ranges and training areas along the southern and eastern boundaries of Fort Carson. Although there is conservation value to some of the land, the primary driver for the buffers is to prevent training restrictions due to incompatible development. In August 2011, an additional 7,045 acres (2,851 ha) in the vicinity of Fort Carson was placed in the ACUB program. By precluding incompatible development off-post through ACUB, the Installation is mitigating factors that would otherwise have direct negative impacts on frequently used training ranges, including: decreasing civilian safety concerns associated with illegal trespass, mitigating off-Installation lighting sources that limit use of night vision devices and other night mission training, and decreasing public complaints regarding dust, smoke, noise, and vibrations.

Additional details on land use planning, recreational opportunities, and land use both on- and off-post are available in the 2009 *Fort Carson Grow the Army FEIS*.

4.2.1.2 Piñon Canyon Maneuver Site

4.2.1.2.1 Location and Size

PCMS is located in southeastern Colorado in Las Animas County, approximately 150 miles (241 km) southeast of Fort Carson (see Figure 1.2-2). It is bounded by U.S. Highway (US) 350 to the west, Purgatoire River Canyon to the east, Las Animas County Road 54 to the south, and Otero County to the north. Nearby cities include Trinidad to the southwest and La Junta to the northeast.

PCMS covers approximately 235,000 acres (95,101 ha), which includes a cantonment area of approximately 1,660 acres (672 ha). Of the 235,000 acres (95,101 ha), the majority is designated as maneuver land (HDQA, 2011a).

4.2.1.2.2 On-Post Land Use/Surrounding Off-Post Land Use/Regional Land Use Planning

The on-post and off-post land use affected environment for PCMS and environs remains consistent with that described in the 2011 *CAB Stationing PEIS*. As with Fort Carson, additional details on land use planning, recreational opportunities, and land use both on and off PCMS is available in the 2009 *Fort Carson Grow the Army FEIS*.

4.2.2 Environmental Consequences

4.2.2.1 No Action

Under the No Action Alternative, Fort Carson would retain their aviation force structure at its current levels, configurations, and locations. There would be no change to land use at Fort Carson or PCMS, as CAB training and construction activities would not be implemented under the No Action Alternative. The No Action Alternative includes Base Realignment and Closure (BRAC)-directed actions, Grow the Army stationing decisions, and other directed stationing actions that would occur prior to the start of FY 2013 (October 1, 2012).

4.2.2.2 Proposed Action

No significant changes to land use impacts have been identified beyond those previously analyzed in the 2009 *Fort Carson Grow the Army FEIS* and the Army's 2011 *CAB Stationing PEIS*. Land use impacts from CAB-related construction at Fort Carson and CAB training operations at Fort Carson and PCMS would be less than significant. Land use changes would impact internal use of military land, not use of private land; however, most CAB-related construction and operations would not be expected to result in any changes to current land use. CAB-related construction would result in further development of the WRC (see Figures 2.2-1 and 2.3-2), an area that encompasses the ORTC area and whose land use changed under other actions, with environmental analysis conducted in the 2009 *Fort Carson Grow the Army FEIS*. The buildup of the WRC would, however, impact operations at BAAF due to light encroachment and sensitive noise receptors, such as the barracks.

Land use at BAAF would not change as a result of the proposed action. The BAAF complex would require new construction, demolition, and renovation activities to support the CAB and its equipment (see Figures 2.3.2 and 2.3.3).

Additionally, CAB operational requirements would not change land use designated for training areas at Fort Carson or PCMS. CAB operations would result in increased use of those ranges that enable training of CAB Soldiers in individual skills, units on collective tasks, and different levels of units through multi-echelon training. This increased demand for range use by aviation units would be mitigated and managed within appropriate NEPA-reviewed land use limits and through continued support of Goal 11, the Training Lands Objectives and Targets, from the Installation's 25 Year Sustainability Goals of 2002 (Fort Carson, 2002b). The increased training may also result in reduced hunting opportunities previously available to users; however, the Installation would continue to work with the public and the Colorado Division of Wildlife (CDOW) to maximize public hunting opportunities.

4.2.2.3 Cumulative Effects

As noted in the Army's 2011 *CAB Stationing PEIS*, a CAB stationing at Fort Carson would not result in a change of land use in or around Fort Carson or PCMS, nor present a conflict with existing land uses in areas adjacent to Fort Carson or PCMS. Any reductions in undeveloped land in and around Fort Carson caused by CAB-related construction or construction to support the area's population increase resulting from the arrival of CAB Soldiers and their Families would present minor direct, indirect, and cumulative impacts to land use. Although CAB operations would increase the use of those ranges needed to train the CAB, the cumulative effects of range usage has the potential to be reduced should the Army's planned reduction in forces (DefenseNews, 2011) result in a decrease of any BCTs currently stationed at Fort Carson. Any such decreases, however, are not reasonably foreseeable at this time and are therefore not taken into account in this analysis. For further details on cumulative effects, see the Army's 2011 *CAB Stationing PEIS*.

Review and assessment of major training events is inherent in Army training. After a decade in which only one major mechanized maneuver operation has taken place at PCMS, and with the return of the 4th Infantry Division (ID) and the expected Army draw down of forces overseas, a robust and thorough consideration of all training requirements and methods at the Installation is ongoing in anticipation of the next major mechanized maneuver at PCMS for the 4th ID, which is not yet even scheduled. This assessment includes analysis of training techniques, operations, ranges, and airspace. This assessment also takes into consideration the fact that various training events, to include those with small units, take place on PCMS. The last major mechanized maneuver at PCMS was in 2010. The 4th ID will resume historic levels of use and continuously assess and may modify various aspects of training practices, after appropriate NEPA analysis.

The 4th 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 proposed actions requiring NEPA analysis, this analysis would be conducted as appropriate and applicable prior to any final decisions impacting PCMS.

This Page Intentionally Left Blank.

4.3 AIR QUALITY AND GREENHOUSE GASES

4.3.1 Affected Environment

4.3.1.1 Fort Carson and Piñon Canyon Maneuver Site

4.3.1.1.1 National Ambient Air Quality Standards and Attainment Status

Fort Carson is within the air quality control areas of El Paso, Fremont, and Pueblo counties, including the City of Colorado Springs. Both Fremont and Pueblo counties are in attainment for all criteria pollutants. The Colorado Springs Urbanized Area in El Paso County is in attainment (meeting air quality standards) for all National Ambient Air Quality Standards (NAAQS) criteria pollutants. However, it was classified as a maintenance area for carbon monoxide (CO) in 1999 due to a 1988 violation of the 8-hour CO standard. This CO maintenance area includes the majority of Fort Carson's Main Post area (north of Titus Boulevard and Specker Avenue). The majority of CAB facilities and CAB-related construction would be outside of the attainment/maintenance area. This designation is currently set to run through 2019 (CDPHE, 2009). In December 2009, the Colorado Department of Public Health and Environment (CDPHE) approved the *Revised Carbon Monoxide Attainment/Maintenance Plan, Colorado Springs Attainment/Maintenance Area*, the most current State Implementation Plan (SIP) for the maintenance area (CDPHE, 2009). In the future, this area may become part of an ozone (O_3) non-attainment area. Local O_3 monitors show violation of the proposed 2010 standards. The proposed 2010 standards are more stringent than the current standard. The Federal government will wait until 2013 to decide to implement the 2010 standard. Additionally, the Federal government will scrutinize nitrogen oxides (NO_x) and volatile organic compound (VOC) emissions to ensure future compliance with the general conformity rule, if the 2010 standard is implemented. PCMS is in attainment for all criteria pollutants and is expected to remain in attainment with all potential future NAAQS.

4.3.1.1.2 Pollutants and Sources

Fort Carson stationary and fugitive emission sources, in general, include boilers, high temperature hot water generators, furnaces/space heaters, emergency generators, paint spray booths, fuel storage and use operations, facility-wide chemical use, road dust, military munitions, and smokes/obscurants. Fort Carson's air pollutant emissions generation occurs through the combustion of fossil fuels via equipment such as boilers (a stationary source) and motorized vehicles (a mobile source). Combustion products mainly include GHGs, predominantly carbon dioxide (CO_2); CO; NO_x; sulfur dioxide (SO_2); and particulate matter (PM), both as inhalable coarse particles (PM_{10}) and fine particles ($PM_{2.5}$), which is PM whose diameter is less than or equal to 10 and 2.5 micrometers (µm), respectively. Road dust is predominantly a source of PM_{10}. Additionally, Fort Carson's munitions firing emits airborne lead. In 2010, after tightening the ambient air emissions standard for lead, the U.S. Environmental Protection Agency (EPA) found Fort Carson emits too little lead to further investigate potential to cause exceedences of the new standard. PCMS has far fewer air emission sources than Fort Carson, both stationary and mobile.

4.3.1.1.3 Permits, Management Plans, and Best Management Practices

The Installation manages its air emissions per regulatory requirements, management plans, and BMPs for Fort Carson and PCMS. Key among these is its CAA Title V operating permit (No. 95OPEP110). This type of permit is required of facilities located in an attainment area with the potential to emit (i.e., the maximum emissions a facility could emit given physical, enforceable, and permitting constraints) more than 100 tons per year (tpy) (91 tonnes per year) of a criteria pollutant. Fort Carson being located in a CO maintenance area does not affect these limits. A

Title V permit limits the amount of pollutants from CAA-regulated significant emission sources in various ways, depending on the source type (e.g., restricting operating hours, fuel type, throughput amount, and emission rates). Almost exclusively, the Title V permit limits equal those found in applicable CAA rules and permits. As a major Title V source, the Installation must submit a permit application for renewal every 5 years. The Title V Permit Renewal and Modification Permit Application was submitted to the CDPHE on July 1, 2011. This application was determined to be administratively complete and is currently under review at the state agency. The Installation will operate under the current Title V permit until issuance of the new permit. As part of Fort Carson's Title V operating permit, the Installation is permitted as a minor (area) source of hazardous air pollutants (HAPs) as it does not emit more than 10 tpy of a single HAP (of 186 regulated HAPs) or 25 tpy (18 tonnes) of total HAPs. Fort Carson took a voluntary permit limit with CDPHE that reduces the limits to eight tpy and 20 tpy, respectively. Also of note, the Title V permit limits use of smoke munitions and the generation of fog oil smoke for training exercises, activities that are typically unique to the military.

Fort Carson's BMPs include the Fugitive Dust Control Plan (Fort Carson, 2012), Integrated Wildland Fire Management Plan (Fort Carson, 2011b), Title V Paint Booth Operating Standards, and Ozone Depleting Compound Management Plan. The Fugitive Dust Control Plan, which is an update of the CDPHE-approved 2004 plan, was established per Colorado Air Quality Control Commission Regulation No. 1. An update to Integrated Wildland Fire Management Plan was completed in 2011. BMPs support the Installation in ensuring environmental compliance, stewardship, and sustainability.

The Installation manages fugitive dust and smoke obscurants under Colorado Air Quality Control Commission Regulation No. 1. 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 obscurants and should stop those activities where fugitive dust or smoke obscurants has the potential to leave the Installation.

4.3.1.1.4 Climate and Greenhouse Gases

The Installation's predominant stationary Scope 1 GHG emission sources are on-post boilers at Fort Carson. Scope 2 includes emissions from utilities in providing power to Fort Carson and PCMS. Scope 1 emissions are those from on-post. They are predominantly boiler emissions, but also include emissions from: generators, WWTPs, landfills, on-post vehicles (other than tactical), and leaking refrigerant. Scope 2 emissions are those emitted from power and steam plants in producing power and steam consumed at the Installation. The Installation reports GHG emissions from Fort Carson and PCMS, as required, on an annual basis per 40 CFR 98 Subpart C. In 2008, the Army estimated these emissions (Scope 1 + Scope 2) to be about 100,000 tons (90,700 tonnes) CO_2 equivalent per year. These represent circa 0.000015 percent of total U.S. emissions.

4.3.2 Environmental Consequences

4.3.2.1 No Action

Under the No Action Alternative, Fort Carson would retain their aviation force structure at its current levels, configurations, and locations. There would be no change to air quality or criteria and HAP emissions at Fort Carson or PCMS, as CAB training and construction activities would not be implemented under the No Action Alternative. The No Action Alternative includes BRAC-directed actions, Grow the Army stationing decisions, and other directed stationing actions that would occur prior to the start of FY 2013 (October 1, 2012).

4.3.2.2 Proposed Action

The Army thoroughly analyzed air quality and GHG impacts from CAB stationing at Fort Carson and PCMS in Section 5.5.2 of the 2011 *CAB Stationing PEIS*, a document that is incorporated by reference into this EA.

The proposed action's potential air pollutant emissions increases are insignificant and can be mitigated. Increases in vehicle travel across dirt roads would increase particulate emissions, PM_{10} in particular; additional vehicle engine use would increase CO, NO_x, PM_{10}, and $PM_{2.5}$, and GHG emissions. Increases in CO emissions from additional commuters, construction equipment, and aircraft travel have been shown to conform with Colorado's plan for bringing all portions of Colorado into compliance with the NAAQS CO standard. The 2011 *CAB Stationing PEIS* showed that this action (plus stationing of the Infantry Brigade Combat Team) kept PM emissions below NAAQS; however, the Army cancelled moving the Infantry Brigade Combat Team to Fort Carson.

The 2011 *CAB Stationing PEIS* shows annual GHG emissions from the CAB helicopter training, CAB wheeled vehicles, and the privately-owned vehicles of CAB Soldiers and their Families to be about 87,989 tons (79,822 tonnes) CO_2 equivalent per year. Increases in emissions from the proposed CEP (which was not analyzed in the 2011 *CAB Stationing PEIS*) have been estimated to be a maximum of 10,000 tpy. Consequently, the direct effect of the proposed action, using the 22,957 flight hours and not the probable total flight hours scenario, to GHG emissions may result in a total increase of 97,989 tpy of CO_2 GHG equivalents. As noted in the 2011 *CAB Stationing PEIS*, this represents only a tiny fraction of the total U.S. GHG emissions.

Any net increase of criteria pollutants that would result in a "major modification" would subject Fort Carson to the Prevention of Significant Deterioration (PSD) review requirements (40 CFR 52.21). Should the Installation make changes that increase their stationary plus mobile CO emissions within Fort Carson's CO maintenance area, Fort Carson may have to limit CO emissions to show conformity; however, foreseeable actions in support of CAB stationing implementation would be in conformance. The Installation would continue to evaluate new emissions sources for permitting requirements and take appropriate actions to ensure continued compliance with the CAA.

PM is also anticipated from rotor wash during some helicopter operations and vehicle travel on unpaved roads, to include vehicle two tracks, at Fort Carson and PCMS. All training activities are subject to the Fort Carson and PCMS Fugitive Dust Control Plan. Military convoys must comply with a lower speed limit than regular traffic. Chemical stabilizers (dust palliative) are applied as appropriate.

4.3.2.3 Cumulative Effects

Fort Carson completed a conformity applicability and PSD analysis that included potential CAB stationing scenarios. Cumulative emissions from construction projects are unlikely to lead to a violation of the NAAQS because regional concentrations would have to double over the existing emissions to approach the regulatory threshold. The amount of emission increases anticipated during construction, operations, and military training is not anticipated to have a significant adverse cumulative effect, and violations of NAAQS are not anticipated. Existing and foreseeable development within and surrounding PCMS is anticipated to be limited, causing a low chance of additional sensitive receptors or sources of air pollutants. Cumulatively, the projected increase in training maneuvers at PCMS resulting from the need to train more Soldiers is expected to create less than significant impacts. Further, Fort Carson's air program (to include PCMS) has been implementing various initiatives to address air quality issues (e.g.,

minimizing criteria and HAP emissions from stationary sources on the Installation and reducing fugitive dust emissions).

The Installation is currently considering a variety of proposed energy initiatives under a forthcoming Net Zero NEPA analysis to reduce energy needs (HDQA, 2011c). In April 2011, the Assistance Secretary of the Army for Installations, Energy, and Environment announced that Fort Carson was selected as one of the Army's pilot installations for the integrated implementation of Net Zero goals across all three Net Zero areas: energy, water, and waste.

The implementation of the Army's Net Zero Installation Program at Fort Carson would require the Installation to evaluate and implement where feasible: (1) producing as much renewable energy on the Installation as it uses annually; (2) limiting the consumption of freshwater resources and returning water back to the same watershed so as not to deplete the groundwater and surface water resources of that region in quantity or quality; and (3) reducing, reusing, and recovering waste streams, converting them to resource value with zero solid waste landfilling. The resulting renewable energy infrastructure may impact GHG and air emissions.

4.4 NOISE

4.4.1 Affected Environment

Army Regulation (AR) 200-1 delineates noise generated by military operations into four zones, each representing an area of increasing decibel (dB) level. The AR lists housing, schools, and medical facilities as examples of noise-sensitive land uses. The zone designations are used to determine if the noise environment is compatible with noise-sensitive land uses, as illustrated in Table 4.4-1.

Table 4.4-1. Noise Zone Descriptions

Noise Zone	Aviation (ADNL)	Small Arms (PK15(met))	Large Arms, Demolitions, Etc.(CDNL)	Noise-sensitive Land Use Compatibility
Land Use Planning Zone (LUPZ)	60-65	N/A	57 – 62	Acceptable
Zone I	<65	<87	<62	Acceptable
Zone II	65-75	87 – 104	62 – 70	Normally Not Recommended
Zone III	>75	>104	>70	Never Recommended

Recognizing there are noise sensitive land uses, the Installation has a "Fly Neighborly" policy which works to reduce noise by training Army helicopter pilots on how to reduce noise complaints and is described in the Installation Environmental Noise Management Plan (Fort Carson, 2006b). This plan is currently in the process of being updated.

4.4.1.1 Fort Carson

Noise-sensitive areas adjacent to Fort Carson include Cheyenne Mountain State Park to the west; Colorado Springs to the north and west; and Security, Widefield, and the City of Fountain to the east. Other noise sensitive areas include Turkey Canyon Ranch and Red Rock Valley Estates along the western boundary and El Rancho and Midway Ranch along the eastern boundary. Noise-sensitive locations near the southern boundary of Fort Carson include the communities of Penrose and Pueblo West, which are located to the southwest and southeast, respectively. Noise-sensitive areas within Fort Carson are primarily located within the Main Post area, which is where a majority of Family housing, schools, office space, and child development centers are located. The primary sources of noise at Fort Carson are the firing of weapons, specifically large-caliber weapons, such as artillery and tank main guns, as well as the operations of military aircraft at BAAF.

Fort Carson noise contour data was presented in Appendix D of the 2009 *Fort Carson Grow the Army FEIS* and in Appendix B of the 2011 *CAB Stationing PEIS*. Appendix A of this EA contains updated noise contours.

4.4.1.1.1 Aviation Noise

Baseline aviation Noise Zones at BAAF have been updated to reflect the actual number of flights in 2011, higher flight corridor altitudes, current aircraft mix, and changes in frequency of use for approach/departure and closed-pattern routes (see Appendix A). The existing Noise Zones remain relatively localized to the airfield and do not extend beyond Fort Carson's boundary (see Figure 4.4-1). On-post, the operations generate a land use planning zone (LUPZ) (60-65 dB A-weighted yearly day-night average level [A-YDNL]) which extends along the 04/22

approach and departure track into an industrial portion of the WRC. Noise Zone II (65 – 75 dB A-YDNL) remains localized to the airfield and small arms range area.

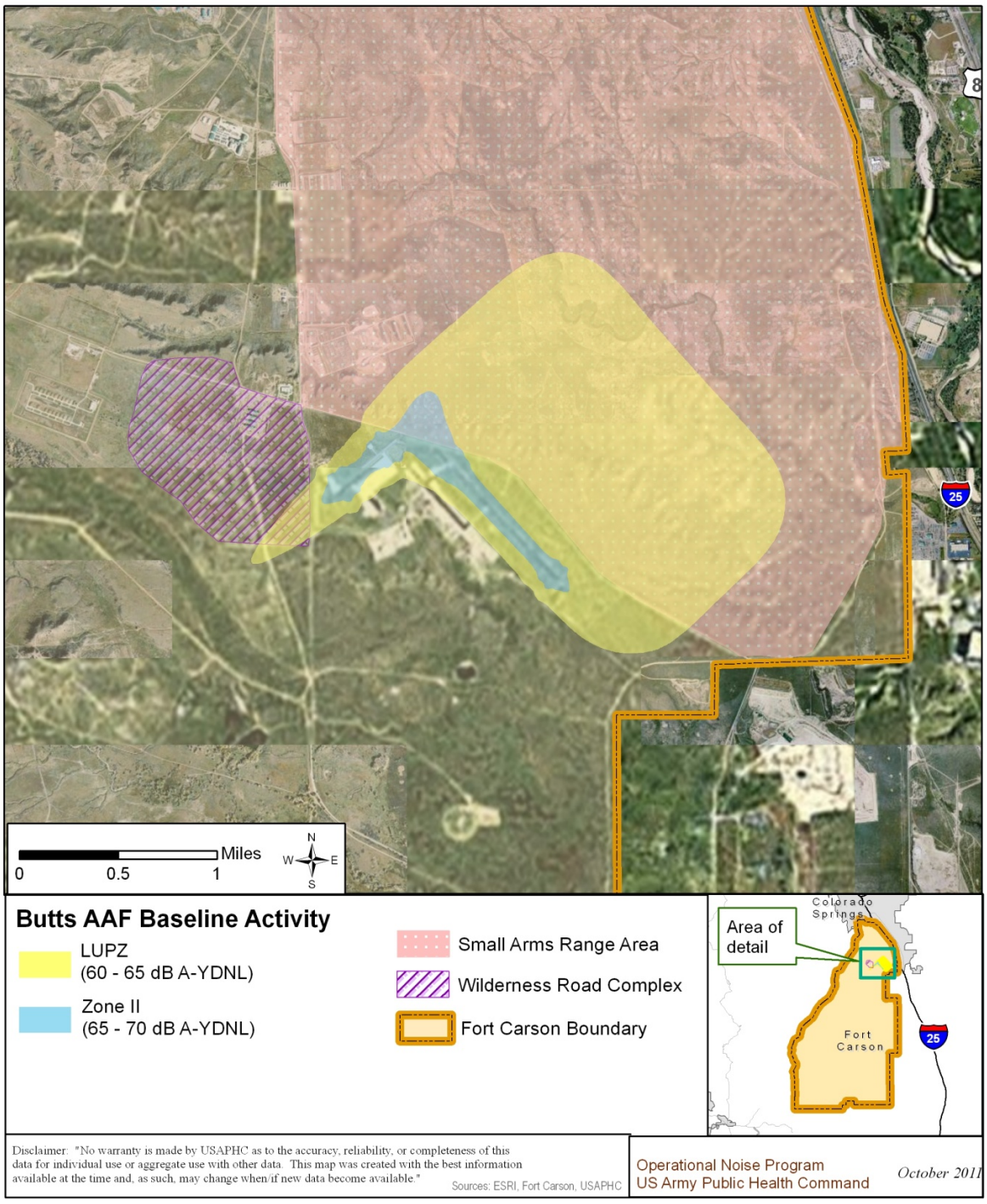


Figure 4.4-1. Butts Army Airfield Baseline Noise Zones

4.4.1.1.2 Large-caliber Live-fire Noise

Figure 4.4-2 depicts the baseline demolition and large caliber weapons noise contours for Fort Carson. The LUPZ (57 C-weighted day-night average level [CDNL]) extends beyond the eastern boundary beyond I-25, encompassing El Rancho, Midway Ranches, and the City of Fountain. The LUPZ extends into an undeveloped area to the south and beyond the western boundary encompassing Turkey Canyon Ranch. Zone II (62 CDNL) extends into El Rancho and Midway Ranches; and slightly into the Turkey Canyon Ranch. Zone III (70 CDNL) extends slightly into undeveloped areas of Fountain, El Rancho, and Turkey Canyon Creek. On-post Zone II encompasses most of the WRC.

4.4.1.2 Piñon Canyon Maneuver Site

Noise-sensitive locations adjacent to PCMS consist of a limited number of residences around the Installation periphery. The primary sources of noise at PCMS are short-term military training exercises at the small-caliber weapons ranges and from military aircraft operations at the combat assault landing strip by C-130 aircraft. Large-caliber weapons are not fired at PCMS. The Noise Zones for aircraft activity at PCMS do not extend beyond the boundary. The existing small arms Zone II [PK15(met) 87 dB] extends beyond the western boundary less than 2,132 feet (650 meters [m]). Noise Zone III [PK15(met) 104 dB] does not extend beyond the Installation boundary (see Appendix A).

Additional sources of noise adjacent to PCMS and the historic Santa Fe Trail include truck and vehicle traffic on US 350 and rail traffic on the active railway which connects Trinidad and La Junta. Rail traffic includes passenger and freight trains multiple times every day.

4.4.2 Environmental Consequences

4.4.2.1 No Action

Under the No Action Alternative, Fort Carson would retain their aviation force structure at its current levels, configurations, and locations. There would be no change to noise at Fort Carson or PCMS, as CAB training and construction activities would not be implemented under the No Action Alternative. The No Action Alternative includes BRAC-directed actions, Grow the Army stationing decisions, and other directed stationing actions that would occur prior to the start of FY 2013 (October 1, 2012).

4.4.2.2 Proposed Action

No significant changes to noise impacts have been identified beyond those previously analyzed in the 2009 *Fort Carson Grow the Army FEIS* and the Army's 2011 *CAB Stationing PEIS*. Noise impacts from CAB-related construction at Fort Carson and CAB training operations at Fort Carson and PCMS would be less than significant. This EA incorporates by reference the discussions contained in the 2011 *CAB Stationing PEIS* and expands on aviation noise analysis.

Fort Carson and PCMS environmental management programs would continue to use BMPs to minimize adverse noise effects both on- and off-post. In addition, as outlined in the 2011 *CAB Stationing ROD*, the following mitigation measures would be adopted at Fort Carson and PCMS:

- Installation G-3 and Range Control schedule and coordinate aviation training to reduce noise impacts on- and off-post; and
- Integrate, to the extent practical and affordable, noise mitigation techniques into construction of noise-sensitive facilities (e.g., brink/masonry construction, increased

thermal insulation, sealing cracks, and spaces between wall layers). Noise mitigation techniques for construction are described in the Installation Environmental Noise Management Plan.

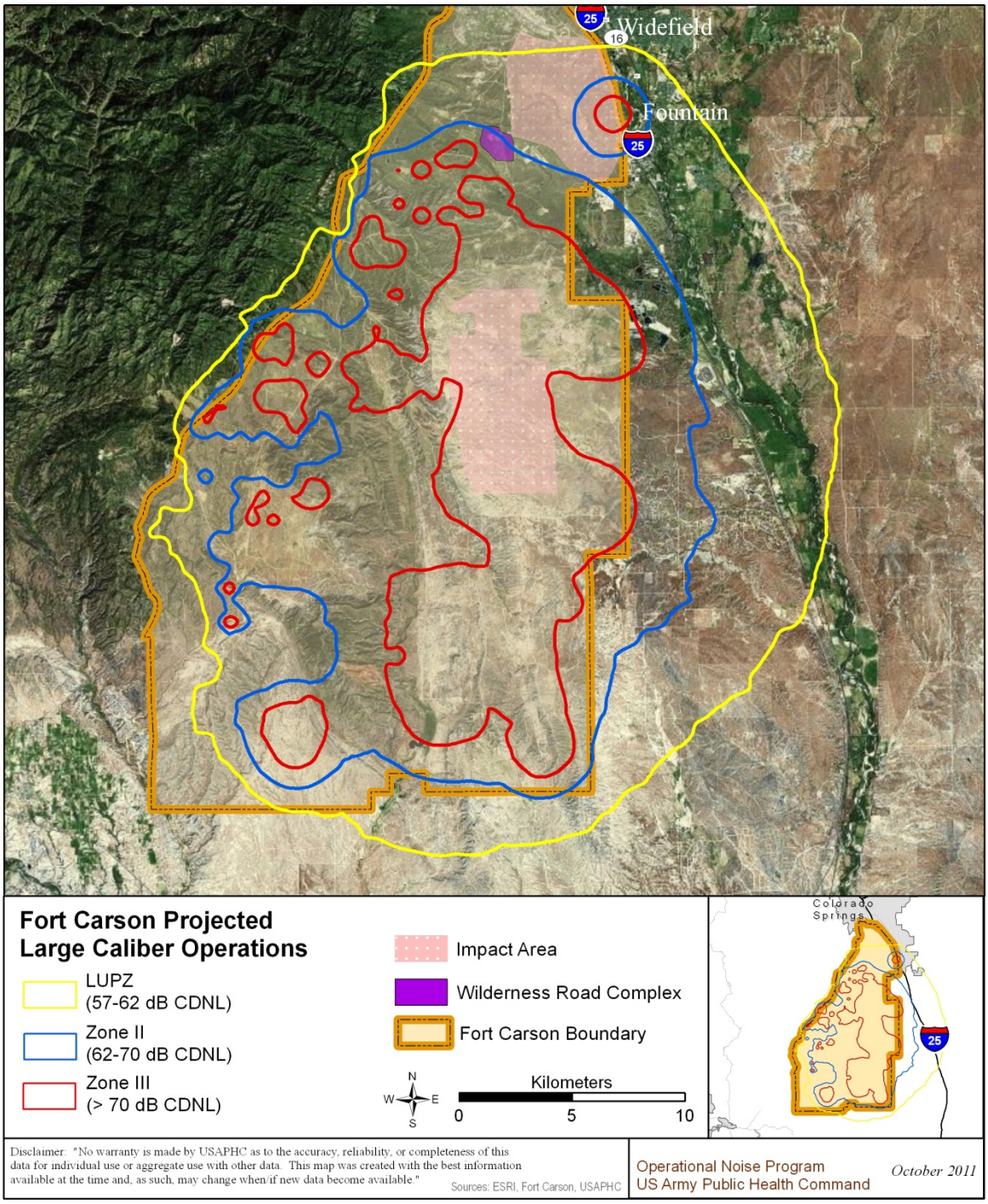


Figure 4.4-2. Fort Carson Large Caliber Noise Contours for Existing and CAB Activity

Below are expanded discussions regarding noise impacts on and from small arms ranges, large-caliber live-fire noise, aviation activity, helicopter overflights, and the WRC as a result of CAB stationing implementation. As previously stated, however, the analysis of impacts to noise contained in the 2011 *CAB Stationing PEIS* remains unchanged.

4.4.2.2.1 Small Arms Ranges

Small arms Noise Zones are developed based on peak levels rather than a cumulative metric. There would be an increase in the frequency of use; however, the additional small arms activity due to CAB stationing would not change the size of the noise contours at Fort Carson or PCMS. The small caliber weapons Zone II noise contour at Fort Carson extends beyond the eastern boundary less than 2,297 feet (700 m), entering the City of Fountain. Noise Zone III extends slightly beyond the eastern boundary into the undeveloped area between the Fort Carson boundary and I-25. On-post, Zone II extends into a small area of the WRC. Based on the current WRC design, there is one noise-sensitive structure within the Zone II area (an ORTC barracks) (see Appendix A).

4.4.2.2.2 Large-caliber Live-fire Noise

Existing large caliber and demolition operations at Fort Carson are in excess of 532,000 events annually. An increase of 55,200 rounds attributed to the projected CAB activity would be acoustically insignificant to existing noise levels; the addition of the CAB activity does not perceptively change the demolition and large caliber noise contours (see Appendix A).

4.4.2.2.3 Aviation Activity

As of the end of FY 2010, Fort Carson (including PCMS) had a total of 17,223 flying hours. Of the FY 2010 total, approximately 7,000 flying hours was provided by transient units that would normally be provided by a home-station CAB. With the proposed CAB stationing implementation, fewer transient units are anticipated to utilize Fort Carson and PCMS training areas. The probable estimate in flying hours for the CAB and other aviation units at the Installation would be up to approximately 25,000 annually. As detailed in Section 2.3.3.5, it is estimated that up to one third of total estimated CAB flight time (see Table 2.3-1) may occur at PCMS.

The additional CAB activity does not significantly change the airfield noise contours at BAAF. The addition of the CAB would increase the average number of daily flights from 283 to 324.

The Noise Zones, presented in Figure 4.4-3, still remain within Fort Carson's boundary. On-post, the operations generate a slightly larger LUPZ (60-65 dB A-YDNL) along the 04/22 approach and departure track into the WRC. Additionally, a large portion of the LUPZ extends into the small arms range area.

The implementation of CAB stationing at Fort Carson would not result in a significant increase in use or scheduling of PCMS. A majority of aviation operations at PCMS would be conducted to support ground operations that would have otherwise occurred without aviation support. Since the helicopter activity is dispersed over a vast region, the low number of aircraft operations utilizing the airspace would not generate A-weighted day-night average level (ADNL) noise contours of 65 A-weighted decibels (dBA) or greater.

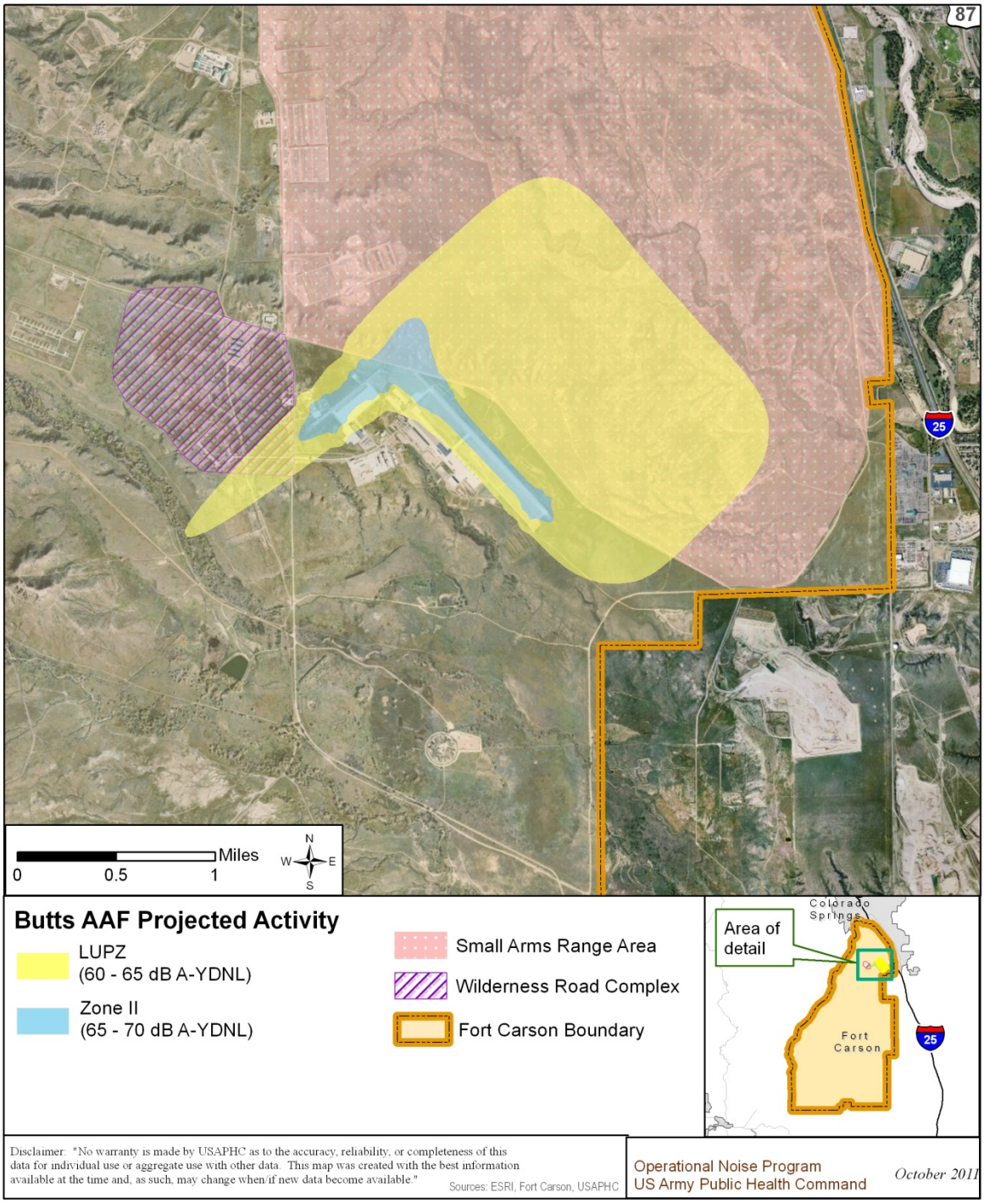


Figure 4.4-3. Butts Army Airfield Projected Activity Noise Zones

4.4.2.2.4 Helicopter Overflights

Although the existing and projected annual average noise levels attributable to activity at BAAF is compatible with surrounding land use both on- and off-post, helicopter overflights would generate levels that some individuals might find disruptive and/or annoying. Individual helicopters may be audible as they travel from BAAF to a designated training area, such as PCMS. In total, it is estimated that up to one third of CAB flight time may occur at PCMS. As noted in Section 4.11.1.1, the area between Fort Carson and PCMS does not have established air corridors. The only restriction is that aircraft must maintain a minimum altitude of 500 feet above ground level (AGL) (152 m AGL) unless they are operating in a designated low-level or NOE training route; however, for training purposes, Route Hawk (see Figure 4.11-4 in Section 4.11.1.1), with a minimum altitude of 100 feet AGL (30 m AGL), is sometimes used as a means of transport between Fort Carson and PCMS. As a result of comments received on the Draft EA, the Installation has initiated actions to formally remove that part of the route that parallels US 350 from Route Hawk (between checkpoints currently labeled H7 and H8 as it is not routinely flown). For further information on the proposed modification, see Section 4.11.2.2.2. Pilots performing low-level flight training on Route Hawk typically only fly low-level in one direction; either from Fort Carson to PCMS or from PCMS to Fort Carson. Not all flights utilizing Route Hawk fly at low-levels; however, utilizing Route Hawk at any level allows for reporting in at designated checkpoints. When the 3rd Armored Cavalry Regiment was stationed at Fort Carson (1996-2006), Route Hawk was used approximately 10 days per month by up to eight flights per day. CAB stationing could increase the usage up to 20 days per month; however, utilization would still only approximate an average of eight daily flights along the route. If the eight flights all fly low-level (100 feet AGL [30 m AGL]), the ADNL would range from 57-60, dependant on the type of aircraft. At 500 feet AGL (152 m AGL), eight daily operations would generate an ADNL of 50-55. Helicopters in routine transit typically maintain an altitude of 1,000 feet AGL (305 m AGL) or higher.

Preliminary results of the research investigating the relationship between training and deer on the Installation, a study referenced in Section 5.6.2 of the 2011 *CAB Stationing PEIS*, indicate that no long-term adverse effects to mule deer occur as a result of training activities and associated noise. The deer quickly return to their 95 percent home range without observable detrimental impact. Preliminary recommendations of the study include enhancement of water availability in the higher cover areas to which the animals temporarily retreat. To minimize noise impact to eagles, the Installation monitors for active nesting. While eagles are actively nesting, the Installation would continue to make that specific area and designated buffer unavailable for training.

4.4.2.2.5 Wilderness Road Complex

Noise Zone II involves demolition and large caliber weapon activity that encompasses most of the WRC. Limiting or relocating the artillery firing occurring in Training 07 would lessen the large caliber weapon day-night sound level (DNL) in the WRC. Though the WRC is located in an area where BAAF noise levels are compatible with residential land use, there is potential for an individual overflight to cause annoyance. The buildup of the WRC would, however, impact operations at BAAF due to light encroachment and sensitive noise receptors, such as the barracks.

4.4.2.3 Cumulative Effects

The changes to the noise contours as the result of CAB stationing implementation at Fort Carson are almost imperceptible. A minor adverse cumulative impact, however, could result from the increased duration and frequency of training as single noise events generated by CAB

training would have the potential to generate a cumulative noise impact greater than the marginal increases in average weighted noise level contours. CAB stationing implementation would not result in a significant adverse change to noise outside Fort Carson. There would be an increase in frequency of aerial maneuver training between Fort Carson and PCMS, yet the low number of operations, minimum flight altitudes, and stand-off distances imposed for low-level operations is expected to result in less than significant cumulative noise impacts.

Cumulative noise at and near PCMS includes noise from truck and vehicle traffic on US 350, railroad activities, and training activities at PCMS. Cumulatively the noise levels have the potential to cause annoyance; however, this noise would be intermittent and infrequent.

4.5 GEOLOGY AND SOILS

4.5.1 Affected Environment

4.5.1.1 Fort Carson

4.5.1.1.1 Geology

Characteristics of the geology of Fort Carson, which has its eastern portion within the Colorado Piedmont section of the Great Plains Province and its western portion in the foothills of the Rampart Range section of the Southern Rocky Mountains Province, are described in the 2011 *CAB Stationing PEIS*. Fort Carson is located within the low risk Seismic Zone 1; where earthquake potential is on a scale of zero to four, with a "four" having the greatest potential for earthquakes (Fort Carson, 2007c). Seismological conditions of the region, which contains three main fault lines, and mineral resources of economic importance in the Pikes Peak Region are described in the 2011 *CAB Stationing PEIS*.

4.5.1.1.2 Soils

Thirty-four soil categories and 65 soil associations have been recognized on Fort Carson. Predominant soil associations identified are the Penrose-Minnequa complex, Penrose-Rock complex, Razor-Midway complex, and Schamber-Razor complex (Fort Carson, 2007c). Additional information on Fort Carson soil types and characteristics can be found in the Integrated Natural Resources Management Plan (INRMP) (Fort Carson, 2007c). Information specific to El Paso, Fremont, and Pueblo counties can be obtained from the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey data (NRCS, 2011).

The WRC and BAAF areas consist almost exclusively of a soil association known as Satanta loam. Satanta loam is a nonacidic soil type, which exhibits low corrosivity to concrete and steel and is ideal for construction. It is moderately susceptible to sheet and rill erosion from surface water and is moderately resistant to wind erosion. The soil is well drained and there are no layers restricting water flow within 80 inches (2,235 centimeters [cm]) of the soil surface. The Satanta loam soil association consists of 17.5 percent clay, 43 percent sand, and 39.5 percent silt. The least-disturbed soils at BAAF occur in the southwestern portion of the airfield (Fort Carson, 2009).

Soil erosion issues can affect transportation infrastructure. Of note is the Crow's Foot intersection, which is north of BAAF around the area where Butts Road intersects with Bad Toelz Road and a vehicle two track. This segment of road is often impacted by soil erosion primarily resulting from surface water runoff during rain events and routinely has soil build-up on the paved roads with corresponding erosion from the unpaved vehicle two track and adjoining natural area.

Range and training areas on Fort Carson cover the majority of land on-post and have the largest percentages of undisturbed soils on the Installation. For information on soil types and characteristics of soils in the downrange area, see Fort Carson's INRMP (Fort Carson, 2007c) and the 2009 *Fort Carson Grow the Army FEIS* (Fort Carson, 2009).

As noted in more detail in the 2011 *CAB Stationing PEIS*, soil erosion, primarily from water runoff, is a significant problem on Fort Carson. Soils of greatest concern for erosion control are clays, silty clays, and clay loams (Fort Carson, 2007c). Specific soil types on Fort Carson of greatest concern for erosion are Wiley-Kim, Penrose-Manvel, and Rizozo-Neville (Fort Carson, 2009). Also, soils with high shrink-swell potential on Fort Carson, as occurs with montmorillonitic

clays, can result in problems with building foundations and stability. Soil erosion is greatest in areas where vegetation has been removed and soils have been disturbed due to construction or training activities. The western portion of the downrange area has a high degree of wind erosion associated with disturbed soils (areas that have been cleared for training operations, including berms).

Both Fort Carson and PCMS have erosion and sediment control plans. In Fort Carson's plan entitled *Draft Environmental Assessment (programmatic) for the Erosion and Sediment Control Program at Fort Carson* dated October 1998, many erosion and sediment control measures are outlined. Despite the date, BMPs are still applicable and valid to control sheet, rill, and gully erosion. BMPs include:

- Repairing gulleys by banksloping (replacing steep slopes with more gently sloping walls);
- Reducing velocity and volume of run-off;
- Installing check dams (small structures usually consisting of rip-rap to reduce velocity of water)
- Seeding with native plants;
- Installing erosion control dams with collection basins (usually in a series);
- Constructing turnouts, diversions, and terraces (ditches or small earthen berms) to divert water from problem erosion areas; and
- Evaluating placement of hardened crossings.

These measures are mandatory and are contained in Fort Carson's Clean Water Act (CWA) permit, its Stormwater Pollution Prevention Plan (SWPPP) and in the requirements of the National Pollutant Discharge Elimination System (NPDES) permit.

Some chemical elements that naturally occur in Fort Carson soils include selenium (Se) and mercury (Hg). As described in the Installation's INRMP, Fort Carson and the PCMS have some of the highest naturally-occurring documented levels of Se in the U.S. (Fort Carson, 2007c). Evidence of the Se being naturally-occurring was confirmed via a recently-completed site wide Se study, the results of which were coordinated with and concurred on by the CDPHE (CDPHE, 2011), as documented in Appendix B. Naturally-occurring Se can acutely and chronically impact both aquatic and terrestrial wildlife when land disturbances, such as military mechanized maneuvers and excessive erosion, occur. Se leached into soil is taken up by Se-receiving plants that are uniquely adapted to these sites, such as the desert princess plume (*Stanleya pinnata*) and two-grooved milkvetch (*Astragalus bisulcatus*). The International Agency for Research on Cancer has determined that Se and Se compounds are not classifiable as to their carcinogenicity to humans (DHHS, 2003). EPA has classified elemental Se as not classifiable as to human carcinogenicity and Se sulfide as a probable human carcinogen (EPA, 2000). The naturally-occurring Hg and some other heavy metals follow the same geological and biological pathways as Se.

4.5.1.2 Piñon Canyon Maneuver Site

4.5.1.2.1 Geology

PCMS is located within the Raton Basin, which has developed along the eastern margin of the Rocky Mountain foreland because of compression associated with the Laramide Orogeny. As with Fort Carson, geological characteristics of PCMS are described in the 2011 *CAB Stationing PEIS*. PCMS, as Fort Carson, is located within the low risk Seismic Zone 1; where earthquake potential is on a scale of zero to four (Fort Carson, 2007c).

4.5.1.2.2 Soils

There are 29 soil associations recognized on PCMS (Fort Carson, 2009). Predominant soil associations identified are the Manzanola silty clay loam, Minnequa-Wiley silt loams, Travessilla-Rock outcrop complex, and Wiley-Villegreen loams (Fort Carson, 2007c). Additional information on PCMS soil types and characteristics can be found in the INRMP (Fort Carson, 2007c). Information specific to Las Animas County can be obtained from the NRCS soil survey data (NRCS, 2011).

A major landslide occurs every 20 to 40 years at PCMS, affecting soils with slopes that are greater than 30 percent. Landslides tend to occur at PCMS from approximately the middle of the northern boundary, southwest to Dillingham Ridge.

Contributing factors leading to soil erosion at PCMS are much different than those at Fort Carson. Soil erosion caused by water typically is a result of larger storms (more than 0.5 inches [1.27 cm]), which occur on an average of less than 6 days per year in any given year; however, the fine and silty nature of some of the predominant soil types and the dry conditions mean that PCMS is more susceptible to wind-based erosion rather than water erosion for most of the year, with the exception of a limited number of days of heavy rainstorms. Vegetation removal and soil compaction from mechanized training have contributed to erosion and erosion potential. Another contributing factor to soil erosion is fire. Recent wildfires at PCMS have caused soil movement and surface soil removal most notable on burned pinon-juniper woodland sites.

Historically, PCMS has contributed highly variable levels of sediment/surface soil to the Purgatoire River Basin, ranging from 20,000 tons to several hundred thousand tons of sediment and soils (Stevens, et. al., 2008). This level of sediment contribution to the river basin system is highly dependent on the variable rainfall and patterns the region receives (both total frequency of storms, their size, and amount of precipitation); amount of maneuver training and maneuver damage; and the Army's internal land management, environmental, and training management programs. As discussed in Section 4.5.1.1.2, PCMS implements erosion and sediment control plans as part of the Army's management of PCMS lands.

Similar to Fort Carson, soils at PCMS contain naturally-occurring levels of Se in soils (see Section 4.5.1.1.2).

4.5.2 Environmental Consequences

4.5.2.1 No Action

Under the No Action Alternative, Fort Carson would retain their aviation force structure at its current levels, configurations, and locations. There would be no change to geological and soils at Fort Carson or PCMS, as CAB training and construction activities would not be implemented under the No Action Alternative. The No Action Alternative includes BRAC-directed actions, Grow the Army stationing decisions, and other directed stationing actions that would occur prior to the start of FY 2013 (October 1, 2012).

4.5.2.2 Proposed Action

Implementation of the proposed action is not predicted to cause significant impacts to the geological character of Fort Carson or PCMS.

Existing soils, topography, and climate conditions are such that significant impacts to soils are not anticipated. Temporary impacts to soils are anticipated as a result of construction, demolition, and renovation activities for CAB facilities at Fort Carson. Proposed CAB facilities are expected to be on relatively flat land with low soil erosion potential; however, there is a potential for some footbridges to be constructed over some gullies on the southwest side of

BAAF should there be inadequate space for parking lots adjacent to the hangars. Temporary impacts to soils are also anticipated at Fort Carson as a result of infrastructure improvements associated with the construction and improvement of facilities. Appropriate permits would be obtained prior to construction and appropriate BMPs implemented to minimize soil loss and erosion during construction, demolition, and renovation activities. Construction, demolition, and renovation site disturbance would temporarily destabilize soils and increase wind and water erosion.

With the increased traffic on Butts Road to access the WRC and BAAF as a result of CAB stationing implementation, erosion issues are expected to continue at the Crow's Foot intersection described in Section 4.5.1.1.2. Fort Carson plans to improve this portion of Butts Road, possibly by including an elevated roadway over the vehicle two track, to address safety concerns and issues with soil erosion.

The primary impacts to soils are predicted to result from aviation maneuvers of the CAB at both Fort Carson and PCMS. These impacts would include increased surface disturbance of soils and removal of vegetation, soil compacting and rutting, reduced infiltration of water, and indirect effects from increased potential for fire and lost vegetative cover. For example, soil loss would be expected to be exacerbated by wind erosion because of high velocity winds generated by helicopter rotor wash. Aviation units would typically fly at altitudes of several hundred feet during support of armored maneuver rotations, but would conduct low-level flights during landing, and dismounted troop and equipment insertions. The use of training simulators and smoke obscurants by the CAB's ground vehicles, and catalytic converters on the ground vehicles, would have some potential to start fires. Impacts to soils at Fort Carson and PCMS as a result of CAB training are predicted to be mitigated to less than significant through Soldier awareness training and continued implementation of existing BMPs and environmental management procedures. Actions carried out under the Installation's Integrated Training Area Management (ITAM) program, for example, work to reduce impacts and, where impacts to soils occur as a result of training, repair damages.

4.5.2.3 Cumulative Effects

The implementation of past, present, and future facilities construction and range construction and upgrades on Fort Carson have and would continue to have temporary impacts on soil erosion and loss of surface soils through erosion of disturbed construction sites. Past and present training activities have caused an increased potential for erosion at PCMS. Increased training frequencies and a broader training activity/footprint would cause the potential for adverse soil erosion effects on Fort Carson's downrange area training lands. Future training activities and military use of PCMS would likely continue to increase the potential for erosion. Maneuver training of the CAB at Fort Carson and PCMS would result in significant, but mitigable, cumulative effects to soil erosion. Off-post soil erosion near Gate 19A has the potential to increase as a result of a mining activities planned by Schmidt Construction Inc./Blue Earth; however, those activities would be implemented under appropriate permits and soil loss would be expected to be controlled and/or mitigated. The limited mining operations on Fort Carson and PCMS are not anticipated to be significantly impacted by past, present, and future actions. There would be a potentially significant cumulative loss of soil resources; however, this would range across the Fort Carson region as development of military projects in concert with community transportation projects and other regional initiatives continue.

Maneuver training of the CAB would increase the susceptibility of Fort Carson's and PCMS's soils to wind erosion, but impacts are predicted to be mitigable to less than significant through Soldier awareness training and continued implementation of existing BMPs and environmental management procedures.

4.6 WATER RESOURCES

4.6.1 Affected Environment

Water resources include surface water and watersheds, groundwater, floodplains, and water rights. The 2009 *Fort Carson Grow the Army FEIS* and 2011 *CAB Stationing PEIS* provide much of the background pertinent to this current assessment and should be referenced by the reader for detailed information regarding water resources at both Fort Carson and PCMS.

4.6.1.1 Fort Carson

4.6.1.1.1 Surface Water and Watersheds

The primarily undeveloped southern and western portions of Fort Carson drain into the Arkansas River to the south. The highly developed and industrialized portion of Fort Carson (the Main Post area) consists of four tributaries within the Fountain Creek watershed that provide local surface drainage: B Ditch, Clover Ditch, Central Unnamed Ditch, and Rock Creek. CAB-related construction and impacts are expected to be within Segment 4 of the Fountain Creek watershed. The constituent of concern in Fort Carson's portion of the Fountain Creek watershed is *E. coli* (5 Code of Colorado Regulation [CCR] 1002-93, Colorado Regulation #93).

The main document that currently guides surface water and watershed management at Fort Carson is the Fort Carson Stormwater Management Plan (SWMP) (Fort Carson, 2011e). Further information about stormwater management and the SWMP is contained in Section 4.12.1.1.3. This SWMP is designed to reduce the discharge of pollutants from Fort Carson to the maximum extent practicable and to protect water quality.

4.6.1.1.2 Groundwater

Groundwater at Fort Carson exists in both alluvial and bedrock aquifers. The primary aquifer at Fort Carson is the Dakota-Purgatoire bedrock aquifer. In general, the quality of the groundwater on Fort Carson is good with the exception of localized areas of high dissolved solids and sulfates exceeding secondary drinking water standards and elevated nitrates and Se exceeding primary drinking water standards.

A site wide Se study looking at the occurrence and distribution of Se in groundwater at Fort Carson was conducted in August 2011 (Summit Technical Resources, 2011), with results coordinated with and concurred on by the CDPHE (CDPHE, 2011), as documented in Appendix B. Se has been detected at concentrations greater than the Colorado Ground Water Standard (0.05 milligrams per liter [mg/L] (0.05 parts per million [ppm])) and the Fort Carson background concentration (0.27 mg/L [0.27 ppm]) in samples collected from groundwater monitoring wells located primarily within Fort Carson's Main Post area. Analysis of qualitative and quantitative data from this study indicates a naturally occurring source (Pierre Shale) for relatively high Se concentrations in Fort Carson's compliance monitoring wells (Summit Technical Resources, 2011).

Section 4.12.1.1.1 presents a discussion regarding potable water use at Fort Carson.

4.6.1.1.3 Floodplains

The 100-year floodplain is associated with drainages in the Main Post area. The proposed location of the CAB is positioned outside the projected 100-year floodplain determined in the 2009 *Fort Carson Grow the Army FEIS*.

4.6.1.1.4 Water Rights

Fort Carson retains approximately 50 surface and subsurface waters rights on Fort Carson. These water rights directly support the training mission by assuring adequate water supplies.

4.6.1.2 Piñon Canyon Maneuver Site

4.6.1.2.1 Surface Water and Watersheds

PCMS is located in the Arkansas River basin. The majority of the drainages at PCMS flow into the Purgatoire River. That portion of the Purgatoire River that runs alongside PCMS is part of the segment from I-25 to the Arkansas River. Upstream segments, as well as the portion alongside PCMS, are 303d-listed for Se.

Water resources management at PCMS is driven mainly by maintaining erosion and sediment control measures identified in the Section 404 regional permit and the Programmatic EA for the Erosion and Sediment Control Program.

4.6.1.2.2 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, nitrate, chloride, fluoride, Se, 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.

4.6.1.2.3 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 FEIS* for more information.

4.6.1.2.4 Water Rights

Water rights are intended for direct support of training mission. Water rights are administered from arroyos[1] and canyons that originate generally to the north and west of the PCMS, with some arroyos and canyons originating from the Installation proper.

4.6.2 Environmental Consequences

4.6.2.1 No Action

Under the No Action Alternative, Fort Carson would retain their aviation force structure at its current levels, configurations, and locations. There would be no change to water resources at Fort Carson or PCMS, as CAB training and construction activities would not be implemented under the No Action Alternative. The No Action Alternative includes BRAC-directed actions, Grow the Army stationing decisions, and other directed stationing actions that would occur prior to the start of FY 2013 (October 1, 2012).

4.6.2.2 Proposed Action

All CAB construction under the proposed action would take place at Fort Carson. No new construction is anticipated at PCMS as a result of CAB stationing, with the focus for

[1] Arroyos: a steep-sided dry gulch in a desert area that is wet only after heavy rain.

development at Fort Carson for new facilities associated with the CAB. Garrison construction, described in Section 2.3.4, would take place in a footprint that is approximately 250-300 acres (31-37 ha).

Improvements to Butts Road are planned as part of this CAB stationing. The Crow's Foot intersection currently consists of an awkward and potentially dangerous junction of Butts Road, Bad Toelz Road, and a vehicle two track. A 10,808 square foot (sf) (1,004 square meter [m^2]) bridge project is planned on Butts Road to span the vehicle two track and stream. This project is anticipated to have no effect on water resources in the area.

Overall, construction of the CAB facilities at Fort Carson could result in increased sedimentation in waterways beyond the project site boundary in and around the WRC and BAAF as a result of stormwater runoff from land disturbance sites. Compliance with the NPDES General Permit for Stormwater Discharges for Construction Activity in Colorado (COR12000F) is an existing measure that reduces impacts associated with stormwater runoff during construction; therefore, sedimentation from construction runoff is expected to negligible.

Hydrological modeling has been conducted for the construction activities on Fort Carson, as part of the Grow the Army initiatives which included a potential CAB construction at WRC site (see the 2009 *Fort Carson Grow the Army FEIS* for more information). The modeling scenario 6 included the CAB building option only at what is now labeled the WRC site; the peak discharge at Rock Node 1 increased from 2,480 cubic feet per second (cfs) (70,224 liters per second [l/s]) in the existing conditions scenario to 2,830 cfs (80,134 l/s), an increase of approximately 15 percent. Overall, the proposed activity in this scenario is expected to increase peak discharge in Rock Creek by approximately 1 percent. The Rock Creek watershed would be considered not impaired due to the small impervious areas for the proposed scenario.

Execution of CAB training activities would increase the use of fuels, solvents, and other hazardous and toxic substances, which could result in an indirect effect to surface water and groundwater if accidentally discharged into the environment. Additionally, at Fort Carson and PCMS, increased training could result in increased surface water sedimentation. With the implementation of current and future BMPs, the potential increase in sedimentation, additional naturally occurring Se into surface and/or groundwater, and pollutant discharges into the environment would be negligible or less than significant. No significant impacts are expected to occur to surface water, stormwater, floodplains, hydrogeology, or groundwater as a result of this CAB stationing decision.

4.6.2.3 Cumulative Effects

The CAB stationing may increase groundwater use, which would be met with existing subsurface water rights. With the implementation of BMPs identified in the SWMP, compliance with stormwater permits, and other management practices, the cumulative effect to water quality would be less than significant to Fort Carson surface and groundwater sources. The increased ground maneuver training at PCMS is likely to result in increased soil erosion, but mitigable cumulative effects with the implementation of current BMPs to minimize surface or ground water quality degradation. Additionally, as a mitigation of increased impervious area resulting from new construction projects, Section 438 of the Energy Independence and Security Act 2007 is taken into consideration and the appropriate low impact development designs would be implemented where technically feasible; therefore, impacts of increased impervious area are expected to be less than significant.

This Page Intentionally Left Blank.

4.7 BIOLOGICAL RESOURCES

4.7.1 Affected Environment

Fort Carson, including its maneuver site, continues to be a leader in sustainability and ecosystem management by proactively seeking partners to facilitate natural resources conservation while maintaining the Installation's training mission. The Fort Carson ACUB program, the Greenprint Project, the Central Shortgrass Prairie Ecoregional Assessment, and Front Range Eco-Regional Management Team initiatives are successful examples. Through collaboration with multiple agencies, organizations and individuals, Fort Carson has initiated grassland prairie ecosystem assessments, noxious weed management and control, forest health assessments in collaboration with the U.S. Air Force (USAF) Academy, regional fire management plan development, and establishment of conservation easements that will buffer Installation boundaries from incompatible development, while concurrently conserving critical shortgrass prairie habitat.

In August 2011, under Fort Carson's ACUB Program, a partnership between the Army and The Nature Conservancy (TNC) enabled the entirety of Fort Carson's southern boundary and portions of its eastern boundary to be protected from further incompatible development in an area that extends approximately 2 miles (3.2 km) from Fort Carson's boundary. The 22,000 acre (8903.1 ha) buffer, managed by TNC, is the culmination of more than 7 years of effort and $35 million in funding. The buffer permanently protects Fort Carson from irreversible encroachment that would otherwise have deteriorated mission capabilities, and ensures that Fort Carson remains an ideal place to train Soldiers and conserve natural resources. El Paso County is also a partner in Fort Carson's ACUB program, helping to protect the military mission at Fort Carson from encroachment.

4.7.1.1 Fort Carson

4.7.1.1.1 Vegetation and Wildlife, including Threatened and Endangered Species

As further described in the 2011 *CAB Stationing PEIS*, Fort Carson is located at the western edge of the Central Shortgrass Prairie Ecoregion and is within the upper regions of the Prairie Grasslands Plant Zone. Fort Carson consists of approximately 45 percent grasslands, 14 percent shrublands, 37 percent forest and woodlands, and 4 percent other (Fort Carson, 2009). Fort Carson habitat supports, among others, the Mexican spotted owl (*Strix occidentalis lucida*), a rare winter resident to Fort Carson (Fort Carson, 2007c).

Listed plant species reported in the 2011 *CAB Stationing PEIS* remains unchanged: the Federally-endangered Osterhout milk-vetch (*Astragalus osterhoutii*) and Federally-threatened Ute ladies'-tresses (*Spiranthes diluvialis*) occur in El Paso County; there are no listed plant species in Pueblo and Fremont counties. No listed plant species are known to occur on Fort Carson.

Integrated Pest Management is used to manage invasive plant populations, such as the exotic invasive tamarisk (*Tamarix ramosissima*), as mandated by DoD. Integrated Pest Management includes biological, chemical, mechanical, and cultural management techniques. The myrtle spurge (*Euphorbia myrsinites*) is a List A (high priority) weed species requiring control known to have occurred on Fort Carson. It has been eradicated from the Installation but monitoring for re-growth continues. Bohemian knotweed (*Ploygonium x bohemicum*) was found on Fort Carson in 2011. The plant has been treated and the site will be monitored for the foreseeable future. This plant has been added to the State "A" list as a result of this finding. Field bindweed, a List C (low priority) weed species, has been targeted for biological control and an effective biological control

agent, the bindweed mite (*Aceria malherbae*), has been made available. The mite has been released at both Fort Carson and PCMS to help suppress populations of field bindweed. The 2008 Fort Carson and PCMS Invasive Plants Management Plan provides more detail on weed distribution and control strategies. Also as reported in the 2011 *CAB Stationing PEIS*, the Main Post area and BAAF consist primarily of non-native ornamentals and large trees. Within flight pattern zones of BAAF, non-native ornamentals and large trees are removed for aircraft operational needs and to reduce the occurrence of bird air strike hazard (BASH). The WRC area, with vegetation considered to be in fair condition, consists primarily of a mix of disturbed land, western wheatgrass/blue grama, small soapweed/blue grama, and big bluestem/little bluestem. Further details on vegetation, including noxious weeds, are available in the 2009 *Fort Carson Grow the Army FEIS* (Fort Carson, 2009).

The status of wildlife species listing also remains consistent with that reported in the 2011 *CAB Stationing PEIS*. The Federally-threatened Mexican spotted owl (*Strix occidentalis lucida*) is the only listed species known to occur at Fort Carson. Species under consideration for listing and not yet protected under the Endangered Species Act (ESA) are the mountain plover (*Charadrius montanus)* (proposed threatened), Arkansas darter (*Etheostoma cragini*) (candidate), and northern leopard frog (*Lithobathes pipiens)* (petitioned). State-listed species on Fort Carson include Arkansas darter (threatened), southern redbelly dace (*Phoxinus erythrogaster*) (endangered), and burrowing owl (*Athene cunicularia*) (threatened). The Fort Carson and Piñon Canyon Maneuver Site Integrated Natural Resources Management Plan 2007-2011 (Fort Carson, 2007c), approved by the U.S. Fish and Wildlife Service (USFWS) and the CDOW, discusses management of rare and listed species, to include the Mexican spotted owl. Spawning of the threatened greenback cutthroat trout (*Oncorhynchus clarki stomias*) has not occurred for years (HDQA, 2011a). Currently, the Arkansas darter is the only sensitive species known to be present in Lytle Pond. The threatened Preble's meadow jumping mouse (*Zapus hudonius preblei*) and the Gunnison's prairie dog (*Cynomys gunnisoni*), a candidate for ESA listing, continue to be species not known to occur on Fort Carson. The mountain plover (proposed threatened) occurs on Fort Carson and PCMS during the breeding and migratory seasons. It is rare on both locations, nesting at only a few sites. The 2009 *Fort Carson Grow the Army FEIS* presents the special status wildlife species that occur (i.e., have been observed) on Fort Carson and the Installation's INRMP also discusses management of these species of concern and other wildlife (Fort Carson, 2007c; Fort Carson, 2009).

As stated in and further expanded on in the 2011 *CAB Stationing PEIS*, wildland fire management, in the form of prescribed burning, is one of the tools used to manage habitat and reduce the risk of wildfires that pose a threat to life and property, which includes sensitive ecosystems, cultural resource sites, and training areas. The training areas on the Installation require the use of munitions and weapons systems that increase the chance of wildfire ignition and may damage important resources. The Installation's Integrated Wildland Fire Management Plan, with update completed in 2011, lays out specific guidance, procedures, and protocols for the prevention and suppression of wildfires and management of wildland fuels on all Fort Carson training lands, including PCMS (Fort Carson, 2011b).

4.7.1.1.2 Wetlands

A small section of wetland has been identified within the footprint of the current proposed location for one building within the BAAF Master Plan. Fort Carson is currently working with the U.S. Army Corps of Engineers (USACE) Regulatory Office to identify jurisdiction and consider a full range of alternatives to avoid or minimize the loss or degradation of the wetland, to include not constructing any facility within the wetland area. There are some wetland areas south of BAAF and upstream/downstream of the Crow's Foot intersection where road improvements are

planned. Some minimal individual and cumulative impacts (see Section 4.7.2.3) to wetlands could occur as a result of Fort Carson soil erosion control activities. These impacts are covered under the CWA Section 404 regional permit issued by the USACE, Albuquerque District (Permit No. SPA-2008-00058-SCO) (USACE, 2008). Typical erosion control measures include erosion control and stock watering impoundments, banksloping of erosion courses, check dams, rock armor, hardened crossings, culverts and bridges, erosion control terraces and water diversions, water turnouts, and other erosion control activities approved by USACE. Due to the avoidance and minimization efforts the Army currently implements as part of its INRMP and ITAM procedures, direct effects to wetlands from training activities do not normally occur. Further information about wetlands on Fort Carson may be obtained from the 2011 *CAB Stationing PEIS*.

4.7.1.2 Piñon Canyon Maneuver Site

4.7.1.2.1 Vegetation and Wildlife, including Threatened and Endangered Species

Like Fort Carson, 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, 2007c). 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), a status that remains unchanged since the 2011 *CAB Stationing PEIS*.

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 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 and chemical methods. Canada thistle is managed by the preferred method, biological control involving several different species, and is integrated with herbicide application, burning and mowing. Integrated Pest Management, as mandated by DoD, is also 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*. As part of lower reaches of the Purgatoire River watershed, PCMS supports a relatively intact large mammal community (e.g., elk, mountain lion, pronghorn, bighorn sheep, black bear, mule, and white-tailed deer). Black-tailed prairie dog (*Cynomys ludovicianus*) on PCMS provide food for the bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), and ferruginous hawk (*Buteo Regalis*). There are species currently listed as endangered or threatened under the ESA that are found in Las Animas and Otero counties (2011 *CAB Stationing PEIS*); however, none are known to occur on PCMS. As mentioned previously for Fort Carson, 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. Also, as previously discussed in Section 4.7.1.1.1, 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 INRMP and the 2009 *Fort Carson Grow the Army FEIS* (Fort Carson, 2007c; Fort Carson, 2009). Any mitigation measures for Federally-protected and sensitive species required as part of the proposed action for this EA would be determined, in concert with this NEPA process, through consultation with the USFWS.

Also, as stated in Section 4.7.1.1.1, wildland fire management occurs at PCMS. When severe wildfires occur, as during the 2008 fire season at PCMS, the Installation takes action, as appropriate, to evaluate damages, implement rehabilitation efforts, and monitor impacts of both the wildfire and subsequent rehabilitation.

4.7.1.2.2 Wetlands

PCMS has approximately 361 acres (146 ha) of wetlands, a significant reduction to the 1992 estimate of 4,776 acres (1,933 ha) resulting from the administrative removal of the Purgatorie River section from Department of Army management to USFS management (Fort Carson, 2007c). Most wetlands on the PCMS are associated with side canyons and streams that are tributaries to the Purgatoire River and water developments.

4.7.2 Environmental Consequences

4.7.2.1 No Action

Under the No Action Alternative, Fort Carson would retain their aviation force structure at its current levels, configurations, and locations. There would be no change to biological resources at Fort Carson or PCMS, as CAB training and construction activities would not be implemented under the No Action Alternative. The No Action Alternative includes BRAC-directed actions, Grow the Army stationing decisions, and other directed stationing actions that would occur prior to the start of FY 2013 (October 1, 2012).

4.7.2.2 Proposed Action

Construction of CAB facilities at the WRC area and BAAF would have some impact to existing native vegetation. Impacts, which include loss of habitat from construction activities, are not expected to be significant. There are no Federally-protected species or species of special concern that use the WRC area or BAAF on a regular basis. No construction activities would occur within wetlands. Impacts from surface water flow and sedimentation have the potential to occur at Rock Creek. Rock Creek flows from the west side of Fort Carson to the east side of the Installation, approximately 1,640 feet (500 m) south of BAAF.

Additional aircraft stationed at BAAF would increase the chance of an aircraft-wildlife strike. The primary wildlife concern is the presence of black-tailed prairie dogs on the airfield that attract several species of predators including eagles, hawks, and coyotes. Prairie dogs entering the airfield and adjacent areas would be lethally controlled or trapped and relocated. Phosphine gas would be used underground to minimize effects on non-target species. In addition, prairie dogs would also be shot with non-lead ammunitions so that predators or scavengers would not ingest lead. These actions are consistent with the Biological Assessment and Management Plan for the black-tailed prairie dog on Fort Carson and the PCMS (DECAM, 2004). The black-tailed prairie dog plan was prepared in 2004 and specifically addresses prairie dog encroachment at BAAF: "[P]rairie dogs would be controlled if their presence threatens the safety of Army personnel, e.g., helicopter landing and refueling sites or aircraft runways. Sites where prairie dogs have threatened the safe operation of helicopter and fixed-wing aircraft include BAAF and dirt landing strips located downrange on Fort Carson." Prior to lethal control of prairie dogs, BAAF would be surveyed for the presence of the mountain plover and burrowing owl in accordance with state and Federal protocols. Deer discovered within the airfield area would be hazed in cooperation with the CDOW. Additional existing measures to control wildlife strike hazard are contained in the Installation's BAAF: Wildlife Hazard Management; 1 August 2011 and INRMP (Fort Carson, 2007c). CAB training activities, including high altitude helicopter training (Fort Carson, 2007c), would have some impact to existing wildlife and native vegetation.

This EA incorporates by reference the discussions contained in the 2011 *CAB Stationing PEIS,* which expands on the potential impacts of CAB activities to specific species. As described in the 2011 *CAB Stationing PEIS*, CAB activities potentially affecting mountain plovers on Fort Carson are (1) overflights and (2) air to ground integration training. CAB activities potentially affecting the Mexican spotted owl (*Strix occidentalis lucida*) are (1) increased frequency of large-caliber live-fire, (2) 2.75-inch (7 cm) rockets and Hellfire missiles, (3) aerial gunnery, (4) air-ground integration training, (5) overflights, and (6) catastrophic fire. To protect nesting bald and golden eagles, no aircraft overflights would take place within 0.5 miles (0.8 km) of nesting sites. Although there is no official guidance on the size of buffer zones for golden eagles, there is raptor guidance from the CDOW; the USFWS, Utah Field Office; and the USFWS National Bald Eagle Management Guidelines. Buffer zones of 0.25 to 0.5 miles (0.4 to 0.8 km) are recommended by most of the above-mentioned guidance. Fort Carson follows the USFWS, Utah Field Office recommendation of 0.5 miles (0.8 km). Fort Carson would also consider modifications to some of the power or utility lines in the vicinity of the airfield to minimize raptor electrocution and would consider placing new utility lines underground for utilities required to be constructed to support CAB facilities.

The 2011 *CAB Stationing PEIS* indicated that air-ground integration training is the only activity likely to affect suitable habitat for the New Mexico jumping mouse. However, this species is not known to occur at the Installation, though there is some minimal riparian habitat for it at PCMS in areas largely off limits to training.

Training impacts from CAB activities potentially affecting large mammals and birds are expected to be less than significant, a conclusion that remains consistent with the results of the 2011 *CAB Stationing PEIS* and which is supported to date by some on-going research. Fort Carson components, including the Conservation Branch of the Directorate of Public Work's (DPW's) Environmental Division, in partnership with University of Colorado, Colorado Springs, and the USAF Academy are conducting research investigating the relationship between training and deer on the Installation. Forty-two deer were radio-collared. Preliminary results of this on-going study have indicated that deer react more strongly to small arms fire (less than 0.79 inches [20 mm]) than to large caliber weapons (greater than 0.79 inches [20 mm]) by contracting their range and shifting their movements to areas outside of their known home range. The preliminary study recommends that wooded areas where deer seek protection from predation or military activities should not be thinned. In addition, guzzlers (drinking water troughs) may provide a form of training mitigation when placed in areas away from ranges where tree and shrub cover are high. Other management actions that may reduce impacts to big game resulting from increased training activities as a result of CAB stationing could include (1) repair and maintenance of existing water sources and development of new sites on Fort Carson and PCMS to provide a water source for deer, pronghorn, and elk temporarily displaced as a result of CAB training; (2) prescribed fire to rejuvenate habitat; and (3) seeding. The potential for vehicle collisions with wildlife, however, has the potential to increase as a result of increased traffic expected on Butts and Wilderness Roads. To mitigate this impact, Fort Carson proposes to lower speed limits and post signs warning of wildlife crossings along Butts and Wilderness Roads in the vicinity of the airfield.

CAB stationing implementation is anticipated to have no effect on the occurrence or spread of Chronic Wasting Disease (CWD), a fatal neurological disease found in deer, elk, and moose, that is present on Fort Carson but not PCMS. The disease attacks the brains of infected deer, elk, and moose, causing the animals to become emaciated, display abnormal behavior and impaired mobility, and eventually die. The prevalence and spread of CWD is density dependent and is being monitored in cooperation with Colorado Parks and Wildlife (CPW).

In continuation of general wildlife and vegetation impacts, additional training would increase wildlife and vegetative disturbance on Fort Carson and PCMS and could result in increased presence of noxious weeds. Increased training, to include air-ground integration operations, could also result in increased incidence of wildfire. With increased flight operations, BASH incidents could increase.

The analysis of impacts to wetlands contained in the 2011 *CAB Stationing PEIS* remains unchanged. No wetlands exist within the proposed CAB facilities construction sites at Fort Carson, a study of wetlands on Fort Carson and PCMS concluded that training at these locations does not seem to degrade wetlands quality in any significant way, and few direct impacts upon wetlands from training are anticipated. Fort Carson plans to improve the Crow's Foot intersection described in Section 4.5.1.1.2 and is developing designs to minimize impacts to upstream/downstream wetlands. For further details regarding potential CAB stationing impacts to wetlands, see the 2011 *CAB Stationing PEIS*. For more details on wetland and riparian area protection, see the *Draft Environmental Assessment (Programmatic) for the Erosion and Sediment Control Program at Fort Carson* (Fort Carson, 1998), which describes the erosion and sediment control program at Fort Carson.

In addition to BMPs and mitigation measures, the following proposed mitigation measures for the airfield and vicinity would potentially enable further reduction of impacts to vegetation and wildlife as a result of the proposed action:

- Storage sheds should receive skirts or be placed on concrete slabs as opposed to being raised off the ground, which permits rodents and rabbits from seeking shelter underneath them;
- Bear-proof dumpsters should be utilized to prevent bears from getting access to garbage which would also attract other scavengers including coyotes and ravens;
- A new prairie dog barrier should be installed on the new perimeter fence that would be constructed when the airfield is expanded to accommodate new building and the replacement and widening the of the runway;
- Sod should be installed in the expanded areas of the runway rather than berry producing plants or tree species to reduce attractiveness to wildlife;
- Corner gates and deer guards should be installed on the perimeter fence to allow deer to be hazed from the runways;
- New drainage culverts installed under the perimeter fence should be blocked with wire mesh to exclude prairie dogs and other mammals;
- Stormwater basins and retention ponds should not be located within 5,000 feet (1,524 m) of the airfield perimeter fence due to their attractiveness to waterfowl and waders, etc;
- New buildings should be designed to prevent colonial nesting birds like swallows to construct nests under roofs overhangs or other sorts of ledges; metal spike strips should be installed on buildings with overhanging roofs; buildings designs with flush junctions between wall and roof are best to discourage swallow nesting attempts; and
- As hangar doors must remain open to move aircraft in and out of the hangar and as ceilings and walls provide excellent perching and roosting opportunities for pigeons, starlings, and other bird species, hexagonal wire mesh (chicken wire) should be installed as a false ceiling below the I-beams of the typical hangar ceiling. Walls may need the

same treatment, but this wire mesh should include trap doors for removing small falcons and other protected species. The opening could consist of a wood frame.

4.7.2.3 Cumulative Effects

Biological resources have been impacted by increasing development both within Fort Carson and along the Rocky Mountain Front Range. There has been a loss of vegetation and habitat within the Front Range from private and Federal land development. CAB stationing implementation at Fort Carson would result in a variety of potential impacts to biological resources, which may include mortality, disturbance, or displacement, and loss of habitat or nesting or foraging territory. Cumulative effects from CAB stationing implementation in combination with other present and planned future actions would occur at Fort Carson and in the region. At PCMS, CAB training could potentially add to cumulative wetlands impacts, which would result from potential sediment inputs to wetland areas during increased training. Potential effects upon wetlands would be mitigated by implementation of the Erosion and Sediment Control Plan (Fort Carson, 1998) and other BMPs to protect wetlands, which should result in effects to be less than significant. A CAB stationing would result in adverse cumulative, but mitigable, effects to biological resources at Fort Carson and PCMS.

This Page Intentionally Left Blank.

4.8 CULTURAL RESOURCES

4.8.1 Affected Environment

Cultural Resources includes historic properties as defined by the National Historic Preservation Act (NHPA), cultural items as defined by the Native American Graves and Repatriation Act (NAGPRA), archaeological resources as defined by the Archaeological Resources Protection Act, sacred sites as defined in Executive Order (EO) 13007 to which access is afforded under American Indian Religious Freedom Act, and collections and associated records as defined in 36 CFR Part 79. Cultural resources management on Fort Carson and PCMS encompasses conservation of resources of significance to the history or prehistory of the U.S. or of traditional, religious, or cultural importance to American Indians including formally designated as traditional cultural properties (TCPs). The Army manages cultural resources associated with all major prehistoric and historic cultural periods recognized on the southern Great Plains and Rocky Mountains at both Fort Carson and its maneuver site.

Fort Carson has identified 13 Federally-recognized Indian Tribes with cultural affiliations with land at Fort Carson and PCMS. A Comprehensive Agreement between Fort Carson and 10 tribes for tribal access, privacy, and inadvertent discovery of human remains and other cultural items was finalized and signed in 2004, and a second Comprehensive Agreement with an 11th tribe was signed in 2005. Section 106 consultation, in accordance with the NHPA was conducted for the construction activities on Fort Carson associated with Grow the Army initiatives, which included a potential CAB stationing (Fort Carson, 2009). These documents provide background pertinent to this current assessment and provide detailed information regarding the presence of cultural resources at both Fort Carson and PCMS.

Two current documents guide the Army's cultural resources management on Fort Carson and PCMS: a Memorandum of Agreement between Fort Carson, the COSHPO, and the Advisory Council on Historic Preservation (ACHP) (Fort Carson, 1980c) and the Integrated Cultural Resources Management Plan (ICRMP) (Fort Carson, 2002a) which is being updated and revised. Attempts have been made by Fort Carson to develop a streamlined approach to the Section 106 process, including a consideration of implementing the Army Alternate Procedures in 2007, which was discarded, and subsequent consultation to develop an NHPA Programmatic Agreement (PA) in accordance with 36 CFR 800.14(b). Consultation for the development of the PA continues. As a result, compliance with the NHPA Section 106 process, described in 36 CFR 800 Subpart B, for undertakings at both Fort Carson and PCMS associated with CAB stationing, as described as part of the proposed action herein, require consultation with stakeholders and identified interested parties, including but not limited to the public, Federally-recognized Tribes, the COSHPO, and ACHP.[2]

Administrative controls are part of the Installation's site-protection strategy. The Army is increasing site-protection measures (e.g., mapping and markings) to exclude training activity with a potential to damage culturally-sensitive areas.

[2] In the 2011 *CAB Stationing PEIS*, it was anticipated that Fort Carson would complete an NHPA PA and an updated/revised ICRMP prior to any site-specific NEPA evaluation for implementation of CAB stationing at Fort Carson/PCMS. These original goals, however, have not been met at the time that this EA for CAB stationing at Fort Carson/PCMS was written. As a result, Fort Carson continues to be responsible for adhering to the Section 106 process for all Federal undertakings, as defined in 36 CFR 800.16(y).

4.8.1.1 Fort Carson

For information regarding sites eligible for inclusion in the National Register of Historic Places (NRHP) at Fort Carson, refer to the 2011 *CAB Stationing PEIS*, 2009 *Fort Carson Grow the Army FEIS*, and ICRMP (Fort Carson, 2002a).

Prehistoric, historic, and multi-component sites eligible for inclusion in the NRHP occur throughout Fort Carson. Approximately 94,376 acres (11,641 ha) of Fort Carson has been inventoried for cultural resources with historic properties identified in the following categories: districts; buildings; structures; and historic, prehistoric, and multi-component archaeological sites. There is a presence of both archaeological and architectural NRHP-eligible resources; however, the entire Main Post area of Fort Carson has been surveyed for cultural resources and is devoid of known NRHP-eligible prehistoric sites. This determination, resulting from various archaeological surveys, has been provided to consulting parties, including Federally-recognized Tribes and the COSHPO. Approximately 24,825 acres (3,062 ha) of Fort Carson, at the time of this NEPA evaluation, are as yet unsurveyed for archaeological resources. To date, there are over 1,200 archaeological sites identified at Fort Carson, with 140 determined eligible for the NRHP and an additional 56 sites that are potentially eligible for the NRHP, pending additional evaluation. One sacred site location has been identified at Fort Carson.

4.8.1.2 Piñon Canyon Maneuver Site

For information regarding descriptions of sites eligible for inclusion in the NRHP at the PCMS, refer to the 2011 *CAB Stationing PEIS*; 2009 *Fort Carson Grow the Army FEIS*; and the ICRMP (Fort Carson, 2002a).

Approximately 90 percent of PCMS has been inventoried for cultural resources, identifying 4,163 archaeological sites. Of these, 948 have been determined to be eligible for inclusion in the NRHP. The cantonment area, consisting of 1,660 acres (205 ha), at PCMS has been 100 percent surveyed for cultural resources and contains no sites eligible for inclusion in the NRHP (Fort Carson, 2009). Five sacred site locations have been identified at PCMS, along with three TCPs and two Areas of Concern.

4.8.2 Environmental Consequences

4.8.2.1 No Action

Under the No Action Alternative, Fort Carson would retain their aviation force structure at its current levels, configurations, and locations. There would be no change to cultural resources at Fort Carson or PCMS, as CAB training and construction activities would not be implemented under the No Action Alternative. The No Action Alternative includes BRAC-directed actions, Grow the Army stationing decisions, and other directed stationing actions that would occur prior to the start of FY 2013 (October 1, 2012). Other actions such as BRAC-directed actions, Grow the Army stationing decisions, and other directed stationing actions may occur; however, these actions would be considered in other NEPA assessments and NHPA consultation efforts in accordance with those regulations.

4.8.2.2 Proposed Action

4.8.2.2.1 Construction

On August 8, 2011, Fort Carson initiated consultation with 13 Federally-recognized Tribes with an interest in Fort Carson and PCMS as well as the COSHPO in accordance with the Section 106 process for construction activities associated with CAB Stationing (see Appendix B). Fort Carson reviewed the anticipated construction associated with CAB stationing, identified the

Area of Potential Effect (APE) (see Figure 2.3-2), and evaluated the presence/absence of historic properties within the APE, as well as the effects that demolition and new construction would have to historic properties. The APE was determined as the total area necessary to accomplish construction activities, taking into consideration proximity to NRHP-eligible historic properties or districts at Fort Carson. Temporary ground disturbance likely to occur due to construction activities was also considered.

CAB projects proposed for the WRC footprint include additional barracks buildings, motor pool facilities, and a land vehicle fueling facility. New construction projects proposed for BAAF include aircraft maintenance hangars, aviation unit company operations facilities, administration buildings, vehicle maintenance facilities, flight simulator buildings, a dining facility, a control tower, a fire station, a tactical unmanned aerial vehicle complex, aircraft loading and fueling infrastructure, and replacement and widening of the existing runway. Current versus proposed development in the WRC and BAAF area are depicted in Figures 2.2-1 and 2.3-3. In addition to the buildings themselves, construction activities would include grading, drainage, and site preparation activities, paving for parking areas and hardstand for maintenance facilities and runway replacement and widening, connection to existing utilities in the area, force protection measures, installation of sidewalks, landscaping, and stormwater basins. Several locations within the APE are also being considered for a possible solar array, which is to receive NEPA analysis under a Net Zero (see Section 4.3.2.3 for discussion of Net Zero) action that is separate from the CAB stationing implementation action.

Within the APE, there are no NRHP-eligible buildings/structures present. Additional survey of buildings less than 50 years of age within the APE may be required in the future, and would be considered prior to any action/undertaking associated with them on a case-by-case basis. As part of the CAB stationing planning, all buildings over 50 years of age were considered. CAB stationing implementation would involve the eventual demolition of several existing buildings within the APE (all ca. 1964). The new replacement buildings would be completed before demolition of existing buildings occurs. Building 9600 serves as the current BAAF fire station; Building 9601 functions as an air operations facility; Building 9604 is a maintenance hangar. These three buildings were evaluated and recorded during a field session in October 2009 as part of the Fort Carson Cold War Phase II Architectural Inventory. Their field determination was “not eligible” for inclusion in the NRHP. Site forms and other documentation were submitted to the COSHPO in April 2011 with a request for official concurrence on the eligibility determination, and the determination was received October 21, 2011. A fourth 1964 era building that would eventually be demolished is Building 9609, which currently functions as a heat plant. The field crew was not given access to Building 9609 in 2009, so it was recorded by Fort Carson cultural resources program personnel as part of consultation for CAB stationing. The field determination for Building 9609 was also “not eligible” for inclusion in the NRHP. This NRHP determination was submitted to the COSHPO for concurrence as part of CAB stationing consultation. Building 9611, which serves as a classroom building, and Building 9620, a maintenance hangar, were also recorded in 2009 (site forms submitted in April 2011). The field determination was “not eligible” for inclusion in the NRHP for these buildings. To date, these two buildings are not scheduled for demolition, but may be eventually remodeled or updated to meet mission needs. The existing dining facility (Building 9612, ca. 1964) was addressed under the 2006 ACHP program comments on unaccompanied personnel housing, and as such is exempt from further consideration under Section 106 review. Modifications to several other existing buildings (ca. 1977-2007) that have not yet reached 50 years of age may also eventually be required to be addressed and considered under NHPA. Table 4.8-1 lists the buildings and structures within the APE and their recommended NRHP eligibility (see Appendix B).

Table 4.8-1. Fort Carson Area of Potential Effects Resources – National Register of Historic Properties Status

Fort Carson Building/Structure Within APE	Year Constructed	NRHP Eligibility	Year Evaluated for NRHP
Building 9600	ca. 1964	Not Eligible	2009, Goodwin and Associates
Building 9601	ca. 1964	Not Eligible	2009, Goodwin and Associates
Building 9604	ca. 1964	Not Eligible	2009, Goodwin and Associates
Building 9609	ca. 1964	Not Eligible	2011, Fort Carson Cultural Resources Program
Building 9611	ca. 1964	Not Eligible	2009, Goodwin and Associates
Building 9620	ca. 1977	Not Eligible	2009, Goodwin and Associates
Building 9612	ca. 1964	N/A – no further evaluation necessary	2006 ACHP Program Comments on Unaccompanied Personnel Housing
Building 9247	1955-1957	N/A – no further evaluation necessary	2006 ACHP Program Comments on Ammunition Storage Facilities
Building 9248	1955-1957	N/A – no further evaluation necessary	2006 ACHP Program Comments on Ammunition Storage Facilities
Building 9249	1955-1957	N/A – no further evaluation necessary	2006 ACHP Program Comments on Ammunition Storage Facilities

Another construction project associated with the stationing of a CAB at Fort Carson involves improvements to Butts Road. Most of the work involves widening the existing road and relocating existing utilities and drainage features as necessary. Fort Carson, however, also proposes to reroute the northernmost section of Butts Road off of Titus Boulevard and construct a new section of roadway that would pass between the operations/motorpool facilities (ca. 2008) located on Ardennes Street and the electric switching station (ca. 1976) located at the present corner of Titus Boulevard and Butts Road. Improvements may be made to the Crow's Foot intersection at Butts Road, Bad Toelz Road, and a vehicle two track. Improvements to this portion of Butts Road may include an elevated roadway over the vehicle two track to relieve the current traffic congestion issues in that area. A variety of buildings border Butts Road, however, all but three of the buildings are not yet 50 years old. Buildings 9247, 9248, and 9249 were constructed between 1955 and 1957. These buildings were addressed in the 2006 ACHP Program Comments on Ammunition Storage Facilities, and are exempt from further consideration under Section 106 review.

Archaeologically, the entire APE has been surveyed for the presence of historic properties. There is one archaeological property eligible for inclusion in the NRHP within the APE boundaries. It is a prehistoric camp located on the edge of the mesa southwest of BAAF overlooking the alluvial plain below, and was recorded by Centennial Archaeology, Inc. in 1989. Fort Carson cultural resources program personnel re-visited the site when it became apparent that proposed construction projects planned for the south end of BAAF could potentially impact the area. Meetings with the USACE design team working on CAB stationing implementation draft plans resulted in changes to the project plans so that the site would be avoided with no adverse impact to the site. Although a new road bordering the southwest corner of BAAF would cross the site's buffer zone, between 164 – 328 feet (50 - 100 m) from the site proper, the site is protected by a fence enclosure, and Fort Carson cultural resources program personnel would monitor all construction activities that occur as part of the construction associated with CAB

stationing implementation around or near this site. There are no additional archaeological sites within the APE.

Until recently, Fort Carson had four NRHP-eligible districts: the Old Hospital Complex (OHC), the Incinerator Complex, Turkey Creek Ranch, and the Turkey Creek Rock Art District. In November 2011, Fort Carson completed Section 106 consultation on a re-evaluation of the NRHP-eligibility status of the OHC Historic District. The COSHPO concurred with the Fort Carson Cultural Resources Manager's assessment that the OHC was no longer eligible for inclusion in the NRHP as a district due to severe loss of integrity and that none of the remaining buildings were individually eligible for inclusion in the NRHP. This undertaking will have no impact, visually or physically on the Incinerator Complex, Turkey Creek Ranch, or the Turkey Creek Rock Art District.

The only minimal new construction anticipated at PCMS as a result of CAB stationing implementation is the placement of new helicopter pads proposed in the airfield area. The focus for development for new facilities associated with the CAB would be on Fort Carson property. Fort Carson's cultural resources program personnel have reviewed the locations of these proposed PCMS helicopter pads and have determined that there would be no historic properties affected because of their location and the absence of cultural resources at the location of the helicopter pads; however, Section 106 consultation would be initiated as required under NHPA and consultation with consulting parties would occur prior to the Fort Carson's cultural resources program approval of helicopter pad construction.

Upon review and evaluation of this undertaking, Fort Carson determined that the construction associated with CAB stationing implementation at Fort Carson would have *"no adverse effect to historic properties"* eligible for or listed in the NRHP in accordance with 36 CFR 800.5(b). This determination was submitted to the City of Colorado Springs, El Paso County Commissioners, Colorado Preservation, Inc., and Colorado Council of Professional Archaeologists on August 5, 2011, and to Federally-recognized Tribes and the COSHPO on August 8, 2011, for their review and concurrence (see Appendix B). Fort Carson received concurrence on their determination of no adverse effect from the City of Colorado Springs on August 30, 2011. The COSHPO concurred with Fort Carson's finding of no adverse effect to historic properties on October 14, 2011 (Appendix B). The Comanche Nation of Oklahoma and the Northern Cheyenne Tribe of Montana responded that they concurred with Fort Carson's determination of "no adverse effect" on August 25 and September 29, 2011, respectively.

Should changes be made to the submitted scope of work, or due to activities proposed beyond the scope of this undertaking, additional Section 106 consultation would be initiated as required and consultation with consulting parties would occur prior to the approval of those activities. In the unlikely event that subsurface cultural materials are encountered during construction activities associated with CAB stationing implementation, Fort Carson's Inadvertent Discovery of Archaeological Resources or Burials Standard Operating Procedures (SOPs), found in the ICRMP, would be implemented.

Additionally, the Installation is currently in consultation with the ACHP, COSHPO, Tribes, and other consulting parties in the development of a PA. This will streamline the Section 106 consultation process for construction, operations, and maintenance at Fort Carson's built environment, which is primarily in non-range areas. Until the PA is completed, the Installation will continue to consult on undertakings.

4.8.2.2.2 CAB Training

As part of this alternative, the Army would increase its live-fire and maneuver/flight operations training activities at Fort Carson and PCMS. Impacts to cultural resources on Fort Carson and PCMS may occur as a result of stationing a CAB at Fort Carson because of an increase in training activities associated with the CAB.

Impacts to cultural resources from training are historically associated with mechanized maneuver and are not anticipated to be significantly affected by CAB training operations at Fort Carson or PCMS. In the Fort Carson and PCMS training areas, archaeological work is ongoing and the unsurveyed acreage would continue to decrease.

Impacts to cultural resources from Army helicopters traveling from Fort Carson to PCMS for training and returning have never had an effect on historic resources. The routes and airspace that would be used by CAB helicopters are already in use by Army helicopters. Use of helicopters is not a newly introduced activity into the landscape. As CAB helicopters travel between Fort Carson and PCMS, only an extremely small portion of the total anticipated PCMS flight hours for the helicopters would be spent flying over properties near Installation boundaries. Most of these aircraft would be flying at standard altitudes and would be approaching and leaving the Installation by various flight paths as there are no set air corridors in the area between Fort Carson and PCMS.

Section 106 consultation with the COSHPO, Tribes, and other consulting parties, on CAB training operations is ongoing. One of the concerns raised by the COSHPO at the start of consultation on CAB training operations was the potential impact of helicopter rotor downwash (the "wind" generated at ground level by a helicopter's rotors during overflight) on known and unknown cultural resource sites located both on and off of the Installation. The Army's calculations indicate that rotor downwash would result in only minimal impact to cultural resource sites. The Army would continue its consultation with the COSHPO, Tribes, and the other consulting parties on CAB training operations. Additionally, ongoing consultations regarding the development of a PA for the built environment at Fort Carson are intended to facilitate a future PA regarding training on Fort Carson and PCMS Until a PA that deals specifically with training activities is completed, the Army would be responsible to consult with all stakeholders and consulting parties on each CAB training activity that has the potential to adversely impact, to identify the APE for each training activity, determine the presence/absence of historic properties within that APE, and to prepare a determination of effect (no adverse effect or adverse effect to historic properties) for all NRHP-eligible properties within the APE in accordance with the Section 106 processes described in 36 CFR 800 Subpart B.

As a result of anticipated future training efforts associated with the CAB, potential impacts would be considered under NHPA Section 106 process (until a PA is developed that deals specifically with training activities).

Under the proposed action, it is anticipated that there would be no impact to historic properties from troop-level increase or facility construction and renovation activities. There could be a potential for negative impacts resulting from live-fire and maneuver/flight operations training; consultation for these training activities would be conducted for those activities which trigger the Section 106 requirement. These training activities, however, would continue to be the responsibility of the Army to consider under Section 106 of the NHPA and may include, if warranted, a consideration of impacts to those historic properties above which flight operations may occur, including both on the Installation and between Fort Carson and PCMS. There are historic properties present between the two Installation properties above which Army helicopter flight has historically occurred and would continue to occur. However, in most if not all cases,

those flight paths do not impact culturally significant sites on the ground.[3] Those proposed actions identified as part of the CAB stationing at Fort Carson and PCMS also constitute a Federal undertaking, in accordance with 36 CFR 800.16(d) and would be evaluated under Section 106 of the NHPA.

4.8.2.3 Cumulative Effects

Cumulative effects to cultural resources include both the construction associated with CAB stationing and the anticipated training increases anticipated at both Fort Carson and PCMS. Because the Fort Carson cultural resources program has not completed consultation efforts regarding the CAB's training impacts to cultural resources, all effects are unknown at the time of this EA; however, it is anticipated that the stationing implementation action would not result in significant adverse cumulative impacts because the Fort Carson cultural resources program would continue to consider impacts to cultural resources and comply with the NHPA Section 106 process on a project-by-project basis for training activities.

[3] For example, though a portion of the NRHP-listed Santa Fe Trail is located between PCMS and Fort Carson, the currently-labeled H7 to H8 segment of Route Hawk (which is the only section of this low-level route that paralleled the Santa Fe Trail), was not typically used because Route Hawk is a transit route between Fort Carson and PCMS and not intended to be flown as a circuit. Per Section 4.4.2.2.4, as a result of comments received on the Draft EA, action has been initiated to formally remove that segment of the route. Therefore, low-level training associated with CAB stationing implementation does not have the potential to significantly affect that cultural resource. Cultural resource impacts would be assessed on a case-by-case basis until such a time as Fort Carson has developed a systematic approach under NHPA.

This Page Intentionally Left Blank.

4.9 SOCIOECONOMICS

4.9.1 Affected Environment

4.9.1.1 Fort Carson and Piñon Canyon Maneuver Site

This EA incorporates by reference the information on socioeconomics contained in the 2011 *CAB Stationing PEIS* for Fort Carson and PCMS. Included is social and economic information such as population, employment, sales, housing, and schools. Information on minority populations is also included to ensure any potential environmental justice issues to minority and low-income populations are raised.

4.9.2 Environmental Consequences

4.9.2.1 No Action

Under the No Action Alternative, Fort Carson would retain their aviation force structure at its current levels, configurations, and locations. There would be no change to socioeconomics at Fort Carson or PCMS, as CAB training and construction activities would not be implemented under the No Action Alternative. The No Action Alternative includes BRAC-directed actions, Grow the Army stationing decisions, and other directed stationing actions that would occur prior to the start of FY 2013 (October 1, 2012).

4.9.2.2 Proposed Action

Implementing the stationing of the CAB at Fort Carson would have no measurable economic effects within the PCMS region of influence (ROI). PCMS is used only for training activities with little opportunity for local economic stimulus. Soldiers training at PCMS are largely confined to PCMS during training exercises, and thus the opportunity to interact with the local populace or provide customers to local merchants is limited. As a result, the economic impact generated by the off-post spending of CAB Soldiers would be less than significant. Fort Carson, however, in conjunction with government and private organizations and individuals, is seeking to increase purchases from local sources in support of those training activities. The major impacts would accrue at Fort Carson as this is where the 2,700 CAB Soldiers and their Families would live, shop, and otherwise spend salary and procurement dollars.

CAB stationing implementation at Fort Carson is expected to result in short- and long-term minor economic benefits in the region through CAB-related construction activities and increased local demand for housing, goods, and services resulting from the population increase brought on by CAB Soldiers and their Families. CAB-related construction activities are expected, based on currently approved budgetary plans, to be funded with FY 2012, 2014, and 2015 funds. This economic benefit conclusion is supported by the results of the Army's Economic Impact Forecast System evaluation of implementing CAB stationing, which is the same as the evaluation done under the 2011 *CAB Stationing PEIS* for location of a CAB at Fort Carson. Table 4.9-1 provides a summary of those results and further explanations of this table can be found in the 2011 *CAB Stationing PEIS*. The actual timing of Soldier relocation and arrival would not occur in one year; but would likely be spread over a number of years to address the practical realities of logistics associated with standing up a Heavy CAB at Fort Carson. Further detail on this analysis and the resulting actions projected to address the increase in demand of housing, goods, services, recreational opportunities, and the utilities and roads infrastructure, both on-post and off-post, is contained in the 2011 *CAB Stationing PEIS*. This includes the increase in demand for schools and childcare facilities, public safety, medical, and other services resulting from an increase in population on- and off-post.

Table 4.9-1. Predicted Impacts at Fort Carson/Piñon Canyon Maneuver Site and Rational Threshold Value

Variable	Change (Percent)	Rational Threshold Value (Percent)
Business Volume	0.34	5.64
Income	0.74	5.63
Employment	0.84	4.04
Population	1.01	3.17

No disproportionately high and adverse effects on minority and low-income populations are anticipated at Fort Carson. CAB construction activities at Fort Carson would occur within the core of the Installation, not along the edges of the Installation boundary; therefore, few adverse impacts to low-income and minority communities are expected. Construction impacts at Fort Carson would be temporary in nature. Impacts from noise, dust, and traffic generated by construction would be minimized by careful construction planning. Fugitive dust emissions would be minimized throughout the construction period by use of conventional dust suppression, BMPs, and mitigation techniques, such as soil erosion and sedimentation control, restrictions on where vehicles can travel on site, speed controls for construction vehicles and equipment, and watering of exposed soil and demolition debris to control dust. Noise from construction equipment would be controlled by use of appropriate sound mitigation techniques and BMPs. Construction traffic during peak-hours would be reduced by the use of centralized construction staging areas.

At PCMS, aircraft noise and fugitive dust from training are potential impacts, which could affect the population near PCMS, including some minority Hispanic populations as well as some enclaves of economically disadvantaged populations. During training exercises and travel to and from PCMS, Army aviators would continue to adhere to Fort Carson Regulation 95-1 which outlines policies and procedures for pilots to maintain minimum altitudes around population centers. In addition, prescribed flight routes to and from PCMS also require pilots to maintain minimum altitudes and distances from populations to reduce noise impacts. At PCMS, Army staff would continue to implement dust suppression activities in coordination with major training events to prevent fugitive dust impacts. Because of these activities and management procedures, no disproportionately high and adverse effects on minority and low-income populations are anticipated at PCMS.

Similarly, the location and distribution of CAB Soldiers and their Families would have no negative impacts or risks to children.

Less than significant and beneficial economic effects would occur under the proposed alternative due to the direct and indirect economic impacts of the new Soldiers and their Families. These would be accompanied by minor or no direct or indirect impacts on housing, Quality of Life, environmental justice, or protection of children.

4.9.2.3 Cumulative Effects

The cumulative effects of implementing the CAB stationing, along with other past, present, and reasonably foreseeable future actions that affect economy, employment, demographics, housing, Quality of Life, schools, community services, or environmental justice on and around Fort Carson and PCMS are expected to be less than significant.

The increase in both the personnel and residential population on Fort Carson, as well as increases in nearby communities would translate into increased Army and individual expenditures for purchases of goods, contracting of services, utilities, and rent and lease payments, and would, therefore, have a net positive cumulative impact to the local and regional economy. For Fort Carson, this increase is occurring against a rapid increase in regional population density. School enrollment in the Fort Carson area would increase as a result of the cumulative increase in regional population. Adverse cumulative effects around Fort Carson would be partially offset through the provision of Federal impact aid to offset costs of providing public education to Families of military personnel.

This Page Intentionally Left Blank.

4.10 TRAFFIC AND TRANSPORTATION

4.10.1 Affected Environment

4.10.1.1 Fort Carson and Piñon Canyon Maneuver Site

A Comprehensive Post-wide Transportation Study (CPTS) was conducted for Fort Carson in 2005, primarily in response to BRAC. The 2006 Piñon Canyon Maneuver Site Traffic Study (Fort Carson, 2006a) evaluated the potential traffic impacts of convoy operations between Fort Carson and PCMS, as well as traffic impacts on PCMS. The CPTS was updated in 2008 due to additional growth and infrastructure requirements based on Army Growth and Force Structure Realignment. The CPTS update mentioned in the Draft EA is complete but has not yet been received. While the new study is not available for publication at this time, the preliminary results of the CPTS discussed below are valid, and sufficient for purposes of analyzing the proposed action.

Convoy traffic between Fort Carson and PCMS is executed per Fort Carson Regulation 56-7, Road Clearance and Convoy Operations, which requires convoys be staggered into groups of no more than 24 vehicles each, spaced at least 15 minutes apart. Convoy movements to and from PCMS are scheduled around peak traffic periods in metropolitan Pueblo to further reduce traffic impacts.

4.10.2 Environmental Consequences

4.10.2.1 No Action

Under the No Action Alternative, Fort Carson would retain their aviation force structure at its current levels, configurations, and locations and CAB training and construction activities would not be implemented at Fort Carson or PCMS under the No Action Alternative. Without the CAB, however, other proposed development at Fort Carson would require roadway and ACP improvements as discussed in Section 4.10.2.2. The No Action Alternative includes BRAC-directed actions, Grow the Army stationing decisions, and other directed stationing actions that would occur prior to the start of FY 2013 (October 1, 2012).

4.10.2.2 Proposed Action

Under the proposed action, road improvements directly attributable to the presence of the CAB are:

- A major realignment of Butts Road would be necessary to provide for acceptable level of service (LOS) entering and exiting the Airfield due to the high volume of AM and PM peak hour travel between the CAB barracks on Warfighter Road and the Brigade Complex at BAAF. This realignment would allow for free flow movements south toward the airfield and north exiting the airfield.
- Extend the west bound right-turn lane on O'Connell at Specker Avenue to Barkley Avenue.
- Barkley Avenue and O'Connell add an additional westbound through lane.

Traffic impacts at Fort Carson and PCMS are anticipated to be less than significant. As indicated in Table 4.10-1, there are some intersections and roadways at Fort Carson that are anticipated to be impacted by CAB stationing implementation; however, proposed upgrades to traffic infrastructure would minimize traffic impacts.

Table 4.10-1. CAB Stationing Implementation Roadway Improvements

Development	Status
Titus expanded from 2 to 5 lanes from Specker Avenue to Butts Road. Butts Road realigned and expanded from 2 lanes to 5 lanes from Titus Boulevard to Ardennes Street.	Proposed
Butts Road realigned and expanded from 2 to 5 lanes from Ardennes Street to Crowsfoot ACP. Butts/vehicle two track intersection would be grade separated.	Proposed
Construct Gate 19 ACP and connecting road from Gate to Butts Road.	Proposed

In support of the ongoing CPTS update, Fort Carson Master Planning provided a status on post-wide development, as of November 2011 (Fort Carson, 2011c). The CPTS update will identify Installation development and include trips/size and timeframe for completion or construction, which include those specific to CAB stationing implementation (see Table 4.10-2). Trip or size data is projected and used to determine the number of trips generated by specific construction projects.

Table 4.10-2. Master Plan Development Summary

Construction Projects	Trips/Size	Date/Status
CAB HQ, Motor Pools and Support Facilities	2,753 Personnel	HQ Construction 2012. Motor Pools/Support Construction 2015
CAB Barracks	1,294 Soldiers*	Construction 2012
Wilderness Road Shoppette	8,200 sf (762 m^2)	Construction 2012

*****2011 *CAB Stationing PEIS* presumes Soldiers in CAB barracks would walk to Brigade Complex; however, for purposes of this EA it was assumed that each Soldier would drive. This assumption is based on the 1st Brigade, 4th Infantry Division at Fort Carson. With barracks on one side of Specker Avenue and a Brigade Complex on the other, despite a pedestrian tunnel beneath the roadway and the proximity between the two facilities, nearly all of the Soldiers drive. The distance between the CAB Brigade Complex and barracks, at approximately 1 mile (1.609 km), would be much greater.

Table 4.10-3 identifies 24-hour traffic volumes (vehicle numbers) for those roadways that would experience CAB-related traffic. The volumes do not account for deployments at the time of counts. Traffic data collected during October 2011 was adjusted to account for deployments. An estimated 7,600 troops were deployed during this period. Considering 5,893 civilians present and an assigned troop level of 25,600, a factor of 1.32 was calculated and applied to the 2011 traffic volume data. Traffic volume and other factors impact LOS and other service ratings.

Intersection turning movement counts are also part of the on-going traffic study. These were conducted at the following locations in November, 2011:

- Prussman Boulevard and Wetzel Avenue
- Prussman Boulevard and Specker Avenue
- Titus Boulevard and Utah Beach Drive
- Titus Boulevard and Specker Avenue
- Titus Boulevard and Butts Road

Table 4.10-3. 24-Hour Traffic Volumes

Roadway	Average Daily Traffic
Warfighter north bound, North End	315
Warfighter south bound, North End	369
Wilderness east bound, West of Butts Road	527
Wilderness west bound, West of Butts Road	584
Butts Road north bound, South of Bad Toelz	1,925
Butts Road south bound, South of Bad Toelz	2,345

Two of these intersections would experience CAB-related traffic (Titus/Specker and Titus/Butts). The study will identify improvements needed in order to achieve LOS D or better at each signalized intersection. Descriptions of LOS definitions are defined in Appendix A of the 2011 *CAB Stationing PEIS*.

ACP data was collected during June and September thru November 2011 to determine travel patterns through ACPs. CAB-related traffic is anticipated to primarily impact Gates 6 and 19. During June 2011, Gate 19 was not open to traffic. The proposed action includes upgrades for Gate 19 to make it a fully functional ACP. Future volumes were projected for all ACPs, both with and without the CAB, and with the assumption that Gate 19 is open. The CPTS update will also evaluate and address LOS conditions should Gate 19 not open, as well as evaluate the processing capacity of ACPs to determine where additional ACP lanes would be necessary.

Additionally, as identified in the 2009 *Fort Carson Grow the Army FEIS*, no significant impacts are expected as a result of convoy traffic between Fort Carson and PCMS. Convoy traffic for CAB vehicles would follow existing procedures and limitations contained in Fort Carson Regulation 56-7.

The proposed action would have less than significant impacts on the roadway network. Only minor improvements would be necessary. The 2009 *Fort Carson Grow the Army FEIS* also notes less than significant impacts to the regional roadway network as a result of CAB and other planned actions, with local and state planned improvements in place. As discussed in the 2011 *CAB Stationing PEIS*, rail facilities are adequate to meet demands of Fort Carson growth and CAB training at PCMS.

With the stationing of a CAB at Fort Carson, CAB Soldiers and Family members are projected to generate approximately 70,750,880 vehicle miles per year traveled on the Installation and surrounding area (see 2011 *CAB Stationing PEIS*). As noted in Appendix D of the 2011 *CAB Stationing PEIS*, appropriate state and local government agencies have identified the potential effects and are prepared to meet those effects to ensure the continued quality of the transportation system to meet local and regional demands and ensure the quality and safety of the transportation system. These agencies have identified capital improvement projects to address population growth, and transportation demands for the future, to include roadways and nonmotorized infrastructure that can potentially decrease auto demand in the future.

4.10.2.3 Cumulative Effects

Cumulative impacts to traffic on and around Fort Carson, encompassing El Paso County and the cities of Colorado Springs and Fountain are anticipated to be less than significant (see 2011 *CAB Stationing PEIS*). Impacts in the PCMS region are also anticipated to be less than significant as Soldiers will not be stationed at PCMS. Since the 2011 *CAB Stationing PEIS* analysis was completed, the Army is proposing Net Zero initiatives (see Section 4.3.2.3 for discussion of Net Zero) at Fort Carson (HDQA, 2011c). Additional NEPA analysis has begun with potential impacts to be determined.

The convoy traffic between Fort Carson and PCMS is primarily related to mechanized maneuver training, with some of the deployment process executed via rail. The most heavily traveled section of the route is on I-25 near Fountain (38,000 Annual Average Daily Total [AADT] vehicle trips) and in southern Pueblo (34,000 AADT) (CDOT, 2012). The additional traffic during these 2 to 5 day periods attributed to military deployment related trips involving all applicable units would increase these AADTs by only 0.9 percent and 1.03 percent, correspondingly.

4.11 AIRSPACE

4.11.1 Affected Environment

4.11.1.1 Fort Carson and Piñon Canyon Maneuver Site

Army aviation assets are stationed at and flight operations are conducted out of BAAF. Flight operations at PCMS are conducted out of the Piñon Canyon Combat Assault Landing Strip. The Fort Carson and PCMS airspace conditions are generally described in the 2011 *CAB Stationing PEIS*. The types of aircraft that use the airspace are helicopters, fixed-wing aircraft, UASs, and transient aircraft.

The use of the term UAS in this document is intended to generally describe unmanned aerial systems, sometimes also referred to as unmanned aerial vehicles (UAVs), TUAVs, or "drones". The only UASs stationed at Fort Carson are reconnaissance systems, with no live-fire capability. These are the RQ-7 Shadow 200, RQ-11 Raven, Puma, and Silver Fox (Figure 4.11-1). Transient units also occasionally train on Fort Carson and PCMS with similar small reconnaissance UASs.

As described in the 2011 *CAB Stationing PEIS,* Fort Carson implements all applicable regulations and policies on flying to maximize safety and minimize noise complaints. This EA incorporates the 2011 *CAB Stationing PEIS* by reference, including the general description of airspace that appears in Appendix A of that document.

Fort Carson has 152 square miles (394 square km) of Federal Aviation Administration (FAA) designated permanent restricted use and special use airspace (SUA), with no limit in altitude. The airspace is controlled by the FAA of Denver, Colorado (Figure 4.11-2). Military operations areas (MOAs) (a type of SUA) are located around Fort Carson; however, they are higher altitude MOAs and are not utilized by helicopters.

There is no restricted, military-controlled airspace over PCMS; however, there is a MOA for military training activities (Figure 4.11-3). The PCMS MOA is the only Installation MOA that the CAB would utilize. The MOA is not activated every time a helicopter flies in the area. Historically, an MOA was only active for helicopters based on a large scale exercise with a large number of helicopters flying in support. The only aircraft normally affected by the activation of a MOA are aircraft operating under Instrument Flight Rules (IFR Aircraft). Air traffic controllers either clear these aircraft through the airspace or vector them around. FAA regulations state that pilots of aircraft operating under Visual Flight Rules (VFR Aircraft) should contact the controlling agency but do not restrict them from entering the MOA when active.

The area between Fort Carson and PCMS does not have established air corridors. The only restriction to aircraft traveling between Fort Carson and PCMS is that aircraft must maintain a minimum altitude of 500 feet AGL unless they are operating in a designated low-level or NOE training route. Route Hawk (Figure 4.11-4) is the low-level route that has been established between Fort Carson and PCMS for the purpose of conducting both day and night low-level tactical navigation operations. Route Hawk is re-evaluated annually to determine if any adjustments are needed. Between 2006 and 2011, no adjustments were made; however, per Section 4.4.2.2.4, the Installation has initiated actions to formally remove the section currently labeled H7 through H8 as a result of comments received on the Draft EA. As noted in Section 4.4.2.2.4, pilots performing low-level flight training on Route Hawk typically only fly low-level in one direction; either from Fort Carson to PCMS or from PCMS to Fort Carson. Not all flights utilizing Route Hawk fly at low-levels; however, utilizing Route Hawk at any level allows for reporting in at designated checkpoints.

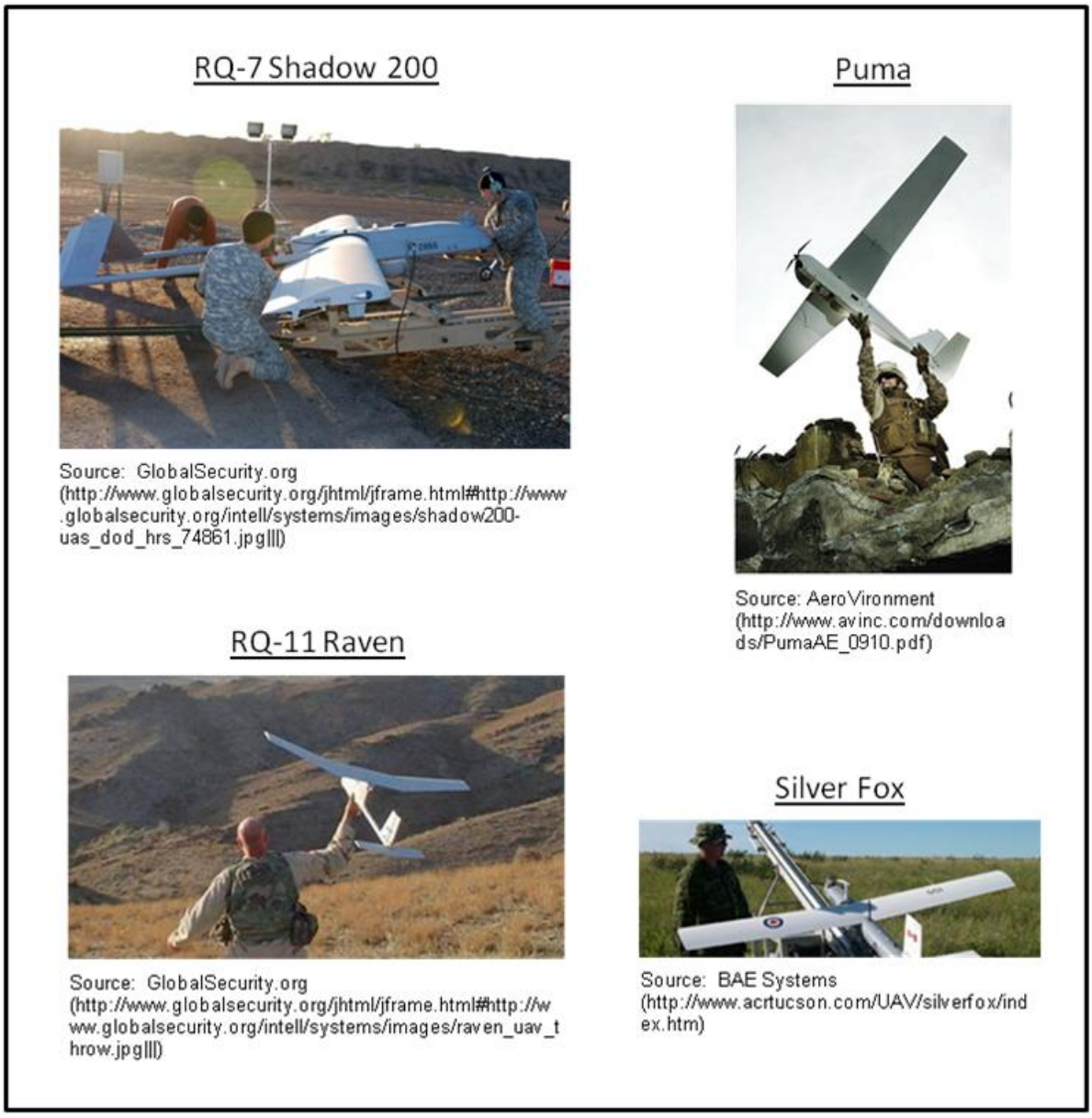


Figure 4.11-1. Unmanned Aircraft Systems Stationed at Fort Carson

NOE and contour training routes established are on Fort Carson and PCMS and do not go over private property.

Additionally, lands of the Pike/San Isabel National Forests have been used to provide the Army, to include Fort Carson, locations related to mountain/high altitude training of helicopter pilots and instructors since about 1978, and are operated under a Special Use Permit. An EA was conducted in 2007 (*Use of National Forest System Lands for Mountain/High Altitude Military Helicopter Training, October 2007* [Fort Carson, 2007a]) in cooperation with the USFS for reissuance of the Special Use Permit. There are no flights or operations conducted in the vicinity of Federally-designated wilderness areas and adherence is maintained as to environmental and safety laws and regulations that are in place for this type of activity.

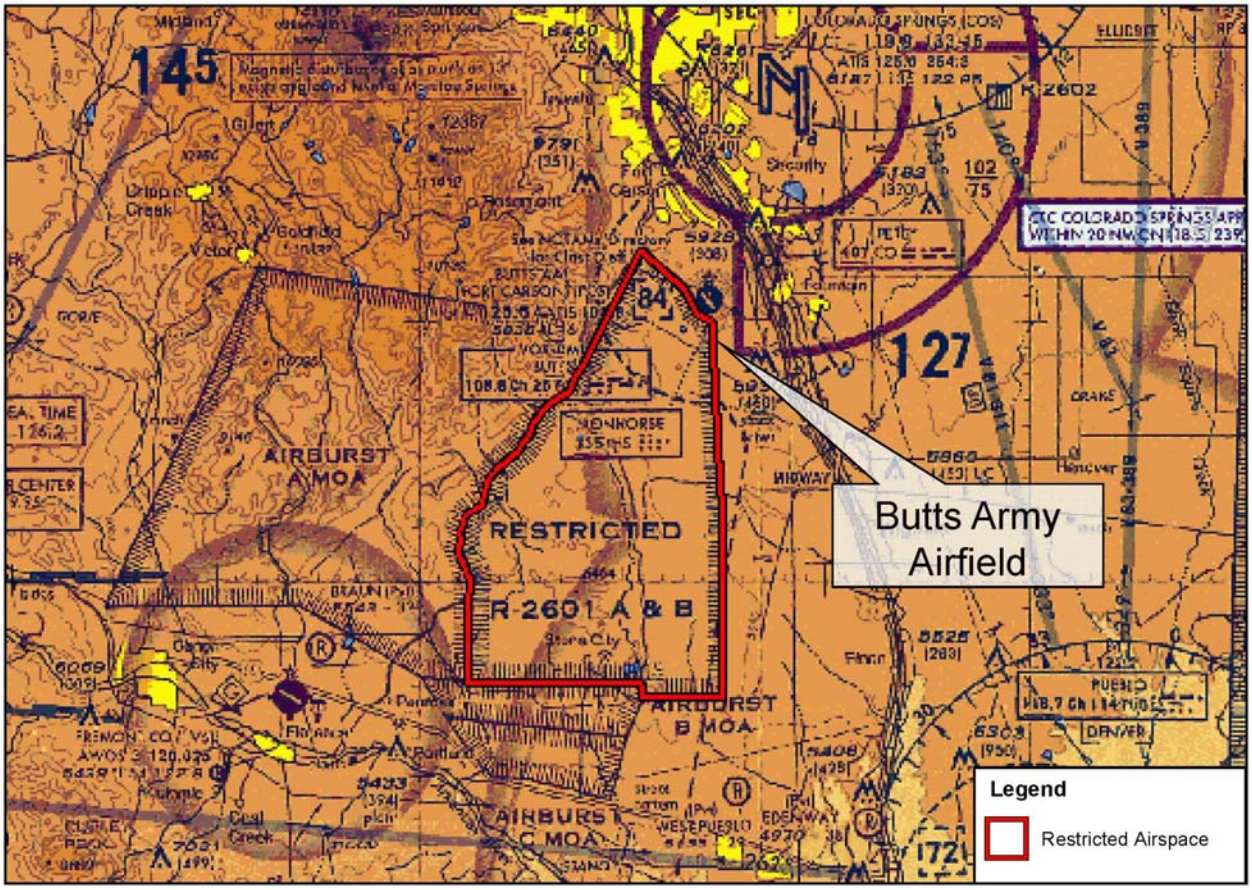


Figure 4.11-2. Fort Carson Restricted Airspace

Further airspace details may be obtained from the 2011 *CAB Stationing PEIS* and from within the noise study contained in Appendix A of this EA.

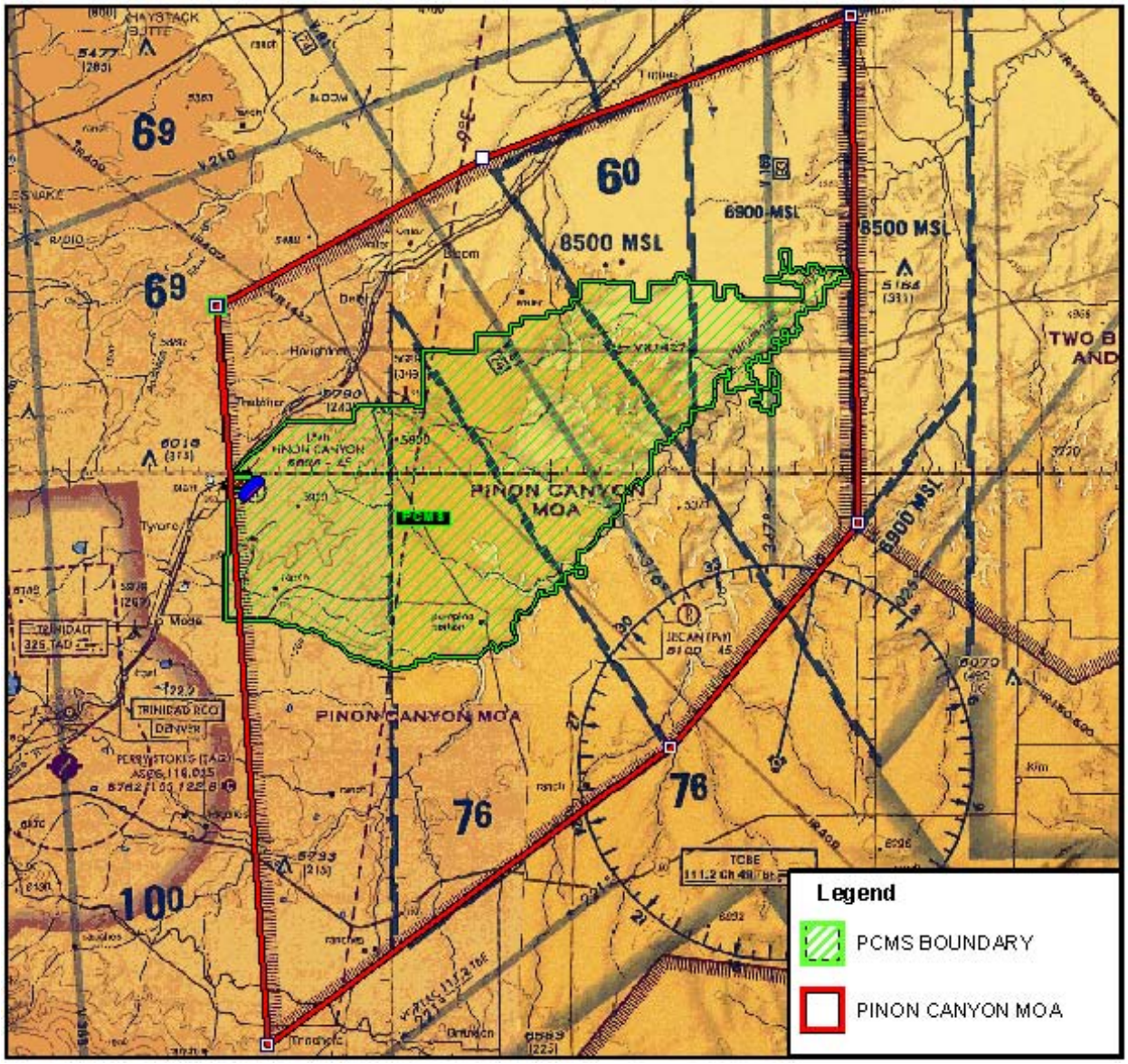


Figure 4.11-3. Piñon Canyon Maneuver Site Military Operations Area

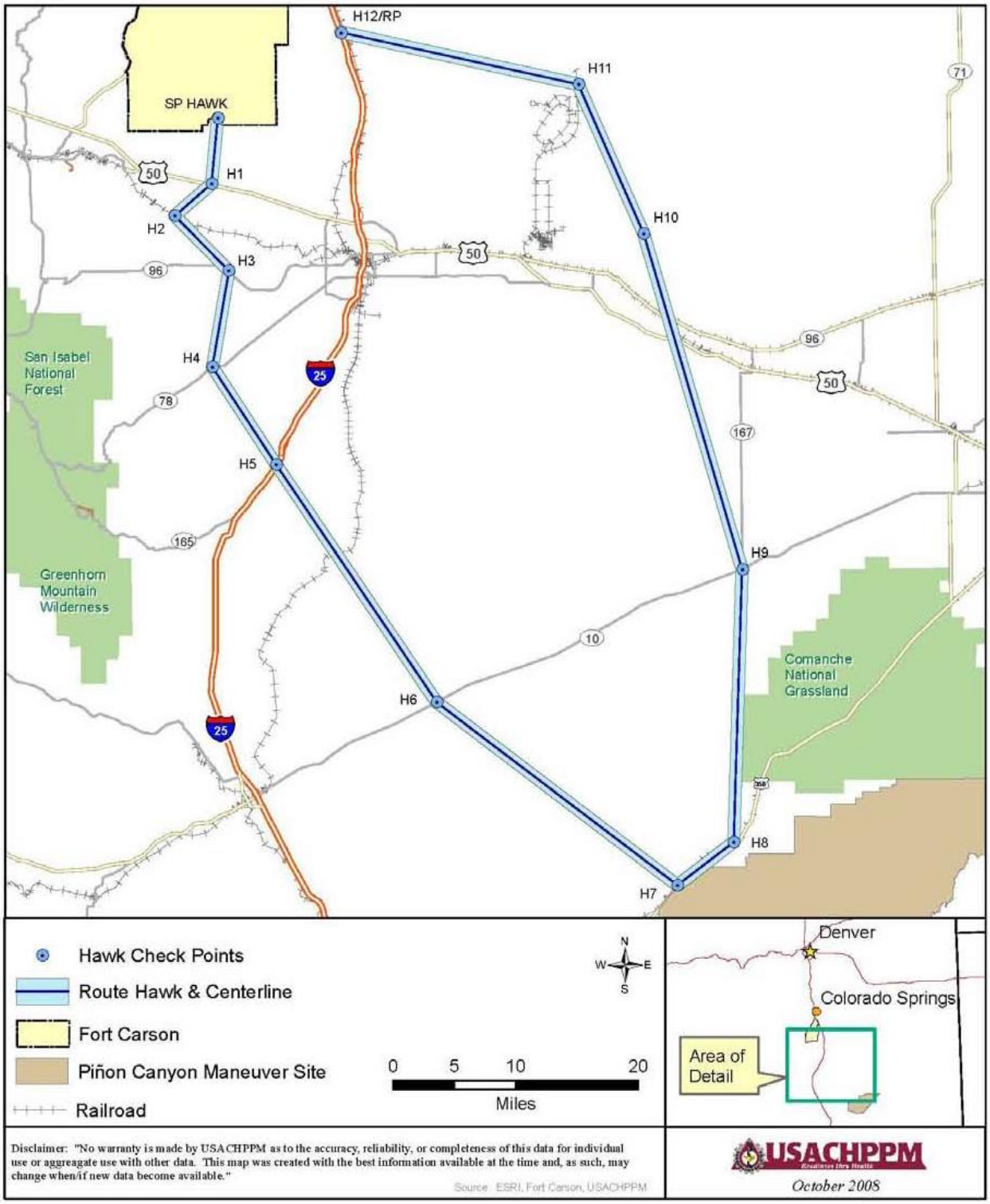


Figure 4.11-4. Route Hawk

4.11.2 Environmental Consequences

4.11.2.1 No Action

Under the No Action Alternative, Fort Carson would retain their aviation force structure at its current levels, configurations, and locations. There would be no change to airspace at Fort Carson or PCMS, as CAB training and construction activities would not be implemented under the No Action Alternative. The No Action Alternative includes BRAC-directed actions, Grow the Army stationing decisions, and other directed stationing actions that would occur prior to the start of FY 2013 (October 1, 2012).

4.11.2.2 Proposed Action

4.11.2.2.1 Construction

The CEP is proposed to be built adjacent to the barracks and company operations facilities on the west side of Butts Road. The potential to impact airspace exists due to the site's close proximity to the airfield. This location is beneath the inner horizontal surface established at 150 feet (45.7 m) AGL. However, nothing may be constructed there that exceeds this height or emits any emissions that contain excessive heat, condensation, or PM that may obstruct visibility. Any element constructed in this area would be examined and approved by the FAA for compliance to the regulations and validation of continued safe flight operations to avoid any significant impacts.

The new control tower proposed to be constructed at BAAF would be sited so as to ensure it appropriately enables the functionality of an airfield control tower and does not negatively impact flight operations.

Construction of proposed CAB facilities on or near BAAF and the construction of the concrete helicopter pads proposed at the PCMS combat assault landing strip would be coordinated, as appropriate, with the FAA and be in accordance with the UFC 3-260-01, *Airfield and Heliport Planning and Design* (DoD, 2008).

No other construction under the proposed action is expected to have a potential to impact airspace.

4.11.2.2.2 Operations

Impacts to airspace would be less than significant. The addition of the CAB to Fort Carson is projected to increase the average number of daily flights at BAAF from 283 to 324 (see Appendix A), should the 22,957 flight hours average identified for full spectrum operations training strategy be realized. As the Fort Carson CAB does not include a UAS company, these flight hours are for helicopters only. Implementation of the proposed action would not include any request to the FAA for additions and modifications to existing airspace designations. The restricted airspace already available can easily accommodate the increase in takeoffs, landings, and flight training hours that would result from CAB stationing implementation. Thus, the increase in maneuver training associated with the CAB would not create obstructions to air navigation, affect flight operations at BAAF or any other airfield, require the FAA to modify existing controlled SUAs, or create new SUAs. The existing restricted airspace and MOAs would allow flight operations to occur safely throughout the maneuver training areas without potential interference from nonparticipating or incompatible aircraft. Use of the MOA by non-military aircraft may be impacted as increased operations involving helicopters due to CAB stationing implementation are expected at PCMS, as detailed in Chapter 2.

Units conducting aerial deployment off of Fort Carson, to include aerial deployment from Fort Carson to PCMS, would follow FAA regulations for the airspace in which they are flying and would avoid concentrations of built up civilian areas. Regulations, which include safety requirements, would also be followed when CAB aircraft train on Route Hawk. Per Sections 4.4.2.2.4 and 4.11.1.1.1, the Installation has initiated actions to formally remove the H7 through H8 leg of Route Hawk noted in Figure 4.11-4. The proposed revision of Route Hawk is depicted in Figure 4.11-5, with a close-up of the affected section in Figure 4.11-6.

Mountain/high altitude training required of CAB Soldiers would be conducted per agreements with applicable land owners and would not occur without appropriate NEPA analysis, documentation, and review having first been conducted. Use of Pike and San Isabel National Forests for mountain/high altitude training by CAB Soldiers would not exceed the limits analyzed in the 2007 EA (Fort Carson, 2007a). This training would continue to be conducted per the 1994 Interagency Agreement between the DoD and USFS and per the Rocky Mountain Region and the Helicopter Training Operating Plan between Fort Carson and Pike and San Isabel National Forests.

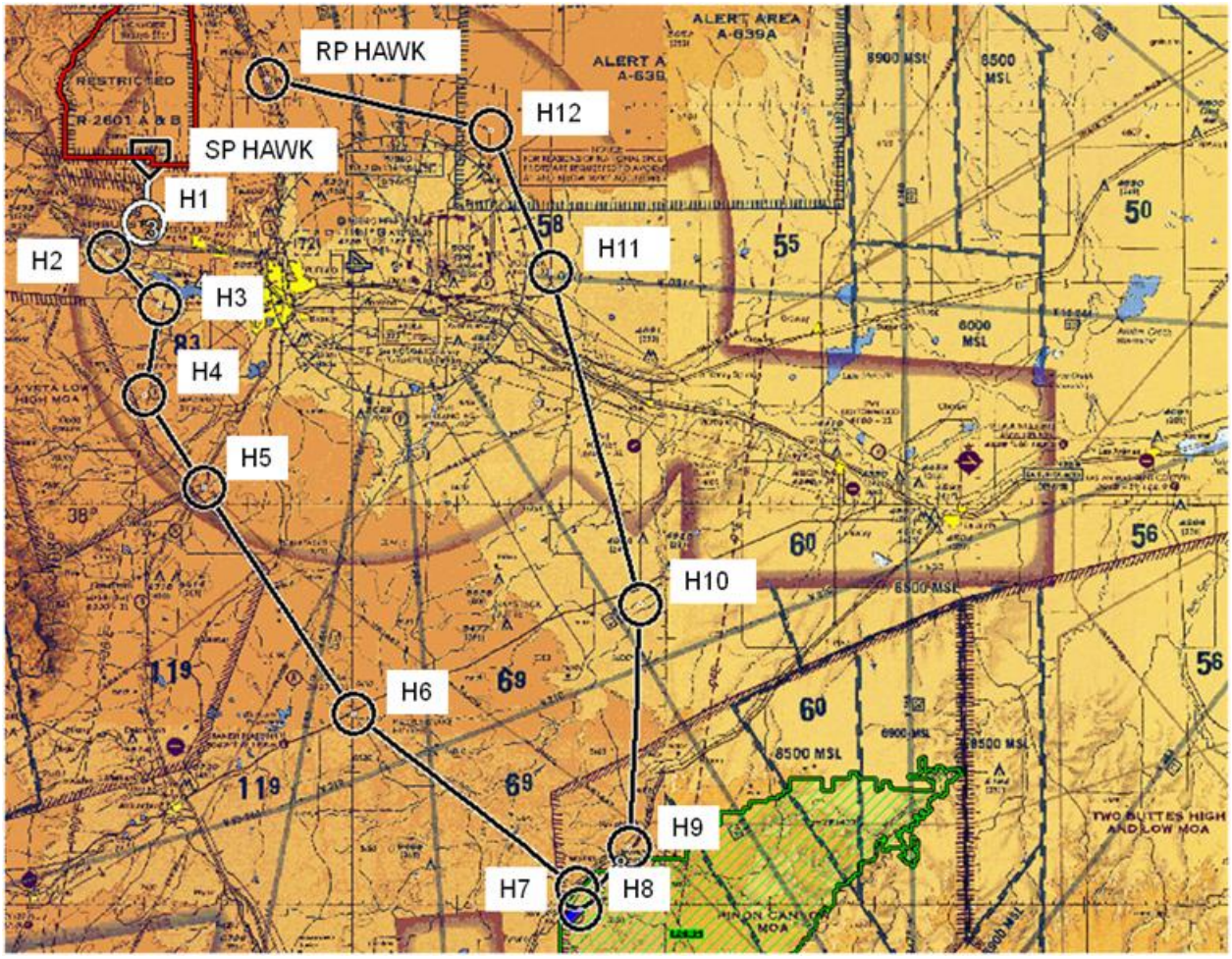


Figure 4.11-5. Proposed Route Hawk Modification

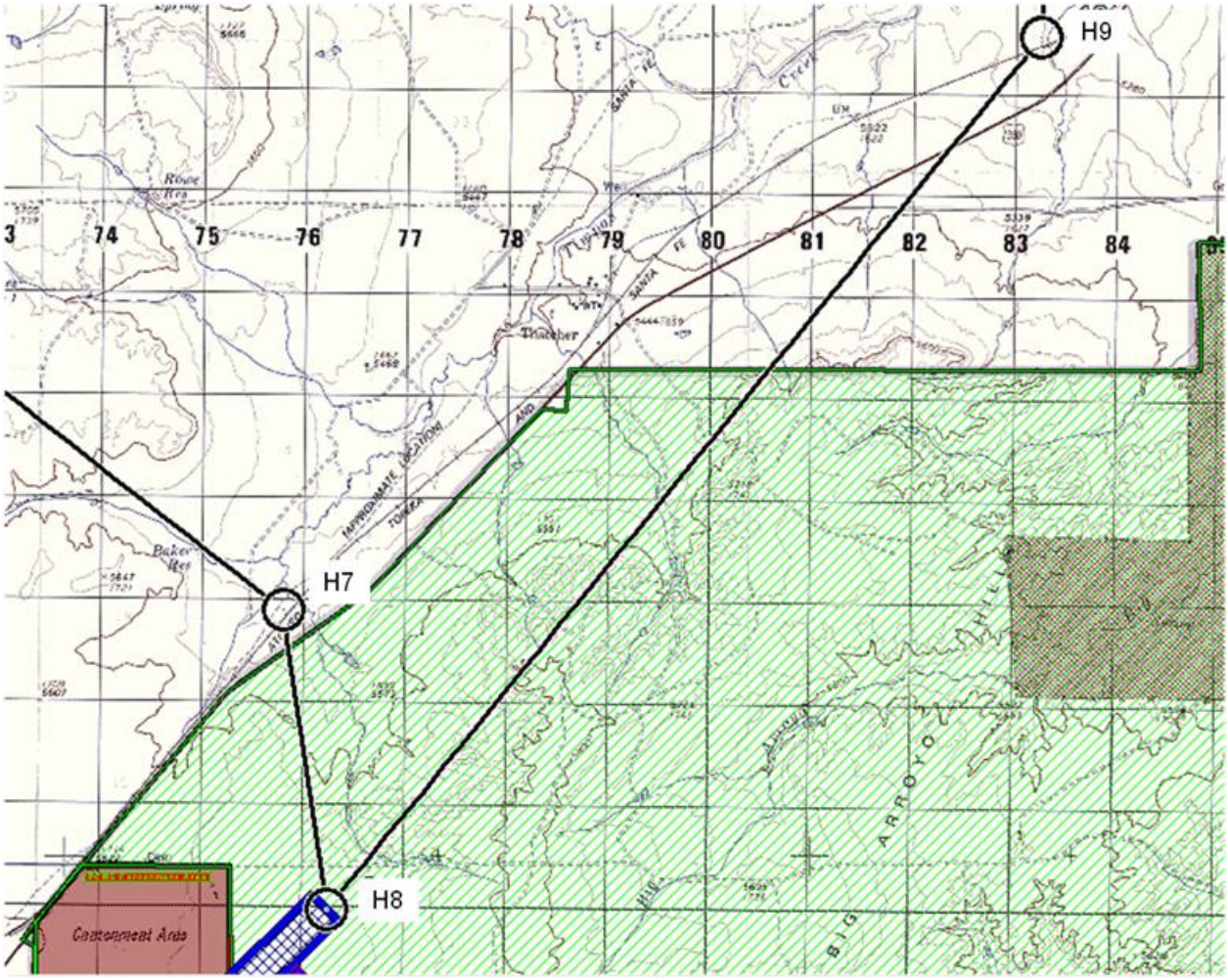


Figure 4.11-6. Close-up of Proposed Route Hawk Modification by PCMS

4.11.2.3 Cumulative Effects

4.11.2.3.1 Construction

The Installation is currently considering a variety of proposed energy initiatives under a forthcoming Net Zero NEPA analysis to reduce energy needs (HDQA, 2011c). Some of these facilities being considered would be constructed in the vicinity of BAAF and have the potential to impact airspace. Adherence to the UFC 3-260-01 criteria are mandatory, disallowing construction of any element of a building beyond the elevations specified for those areas such as the proposed smoke stack for an energy plant. The expulsion of any element into the air from such a facility that could potentially diminish visibility within the flight corridors of the airfield would be considered hazardous and unwise; therefore, nothing would be constructed in this area that exceeds that height or emits any emissions that contain excessive heat, condensation, or PM that may obstruct visibility.

4.11.2.3.2 Operations

Transient aircraft from various Federal, state, and local entities use the airspace over Fort Carson and PCMS for training operations. Additionally, there are units stationed at Fort Carson which are equipped with UAS, training and employing UAS at Fort Carson and PMCS. The four

types of UASs currently stationed at Fort Carson, the RQ-7 Shadow 200, RQ-11 Raven, Puma, and Silver Fox compete for and fly in the same restricted airspace and MOAs used by transient and Fort Carson aviation units. There are no extended range multi-purpose UASs at the Installation. The Predator and Gray Eagle are not associated with any Army stationing decisions at the Installation. There is sufficient restricted and MOAs available at both Fort Carson and PCMS to accommodate the safe employment of Army aviation assets, UAS, and transient aircraft. Due to changing technologies and operational needs, the Installation continually analyzes its needs for modifications to existing airspace. Cumulative impacts to airspace are expected to be less than significant.

As discussed in detail in the 2011 *CAB Stationing PEIS*, the CAB stationing at Fort Carson would not change the levels of airspace use for mountain/high altitude training of Army aviation units in Pike and San Isabel National Forest. As analyzed under NEPA, and per the agreement between the Army and USFS, the Army utilizes 16 landing zone sites in the Pike and San Isabel National Forests for mountain/high altitude training of Army aviation units preparing for deployment to rugged, high elevation areas such as Afghanistan. In addition to aviation training at San Isabel and Pike National Forests, a transient aviation unit from Fort Hood had developed an agreement with the BLM for the short-term use of BLM lands in the vicinity of Cañon City. This agreement allowed the unit to use 20 landing zones for training of aircraft prior to their deployment. The Army is currently seeking additional landing zones from the BLM to accommodate high altitude training needs of primarily transient aviation assets. These training needs would not be affected by the CAB stationing implementation; however, once established, CAB resources may occasionally use BLM landing sites as an alternative to the Pikes Peak and San Isabel National Forest sites.

High altitude training by CAB units, per existing agreements, would be expected to have less than significant cumulative impact on the airspace of these areas. Similar airspace use of BLM sites around Cañon City also are projected to have less than significant cumulative impacts attributable to the limited use and short duration of training. All Army aviation operations adhere to Fort Carson Regulation 95-1 to reduce environmental and airspace impacts of aviation operations.

In August 2011, the USAF published the *Draft Environmental Assessment for the Establishment of Low Altitude Training for Cannon AFB, New Mexico* (Cannon AFB, 2011). The USAF proposed to designate a low altitude training area for training Air Force Special Operations Command aircrews in northern New Mexico and southern Colorado. Twenty-seven Special Operations Wing aircrews are required to maintain flight proficiency in varying terrain including mountainous terrain, varying threat levels, different climatic conditions, and low altitude after dark missions to support Special Operations Forces. With the USAF's proposed action, aircrews would plan and fly low altitude routes in mountainous terrain (especially at high elevations) to ensure that aircraft power capabilities are not compromised and that the crew avoids potentially hazardous situations. The USAF's initially proposed training area boundaries were adjusted to address a number of public and agency comments, to include adjustments to deconflict from civil aviation east of the Rockies and from current military training in the existing Colorado Low Altitude Tactical Navigation area. The USAF's proposed training area boundary for accomplishing low altitude training (Figure 4.11-7) does not overlap with Fort Carson, PCMS, or Route Hawk; therefore, cumulative impacts are less than significant.

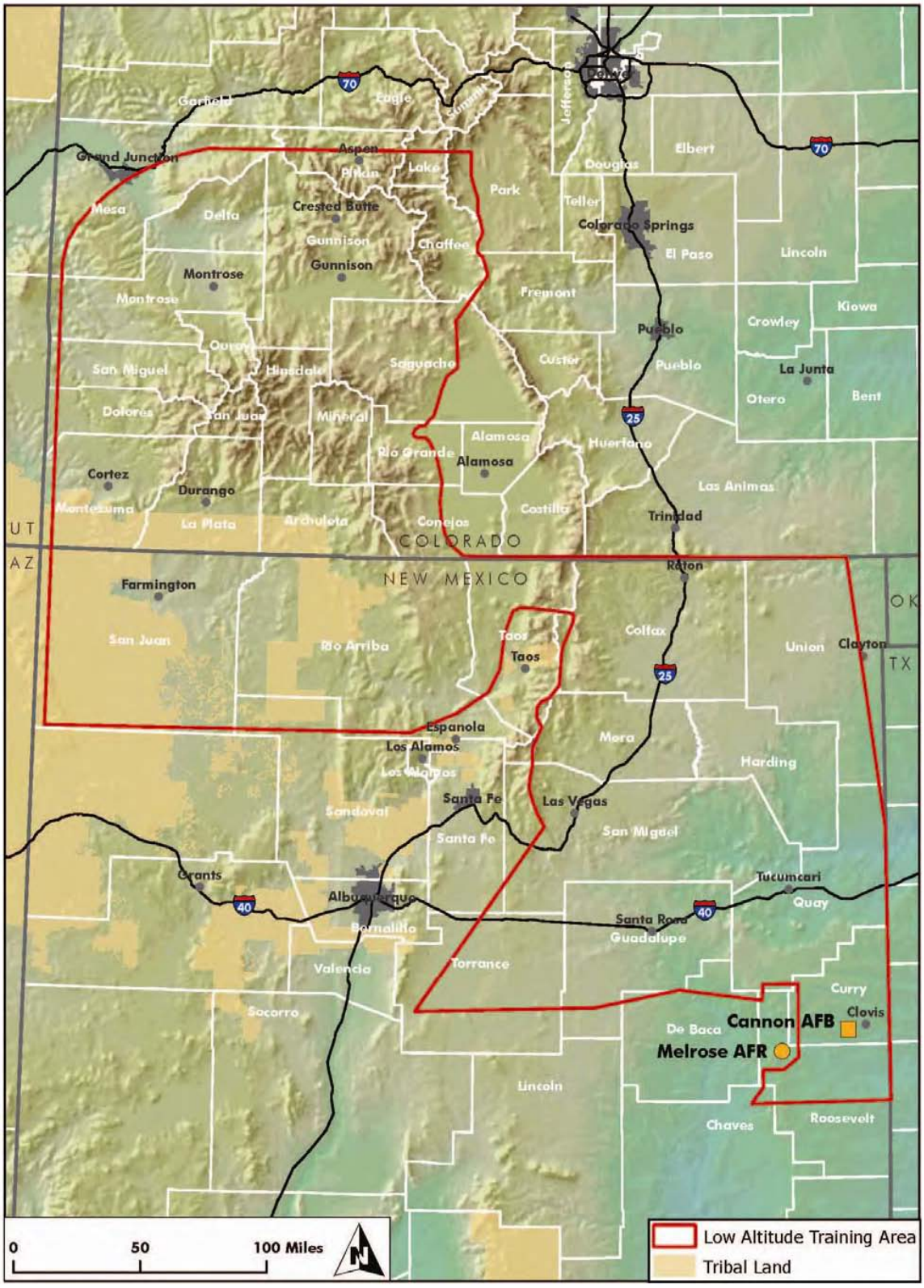


Figure 4.11-7. U.S. Air Force Proposed Low Altitude Training Area Boundary

Source: Cannon AFB, 2011

4.12 UTILITIES

4.12.1 Affected Environment

The Installation's DPW Environmental Division manages both surface and subsurface water rights at Fort Carson and PCMS. Water management includes wells that provide downrange industrial use water, and surface water that provides military training, downrange fire protection, recreational waters, wildlife habitat, and irrigation. The Installation recognizes water is a scarce resource in the Fort Carson and PCMS region and, due to cyclic drought conditions, should always be used wisely and not wastefully.

4.12.1.1 Fort Carson

4.12.1.1.1 Potable Water

Fort Carson purchases its drinking water from Colorado Springs Utilities. Colorado Springs Utilities maintains an extensive testing program that assures full compliance with the requirements of the Safe Drinking Water Act. In addition, Fort Carson Support Services performs routine supplementary testing for chlorine levels, coliform contamination, and chlorination byproducts on the drinking water distribution system with the goal of providing water that is safe to drink for all Fort Carson consumers. On an annual schedule, testing for lead and copper is conducted on water samples collected from schools, child development centers, and Family housing.

Fort Carson, to include the privatized housing on Fort Carson, used approximately 850 million gallons (3,218 million liters) of water in FY 2010. Even with all the growth on Fort Carson, water use since 2001 has been reduced by more than 20 percent through proactive garrison and housing watering policies and initiatives such as rain sensors on irrigation systems. The Fort Carson Cheyenne Shadows Golf Course is being irrigated with treated effluent from the Installation's sewage treatment plant, which conserves the use of potable water. Water storage tanks serve downrange training areas and ranges that would be utilized by CAB Soldiers (HDQA, 2011a).

Fort Carson is in the process of upgrading the potable water system as presented Table 4.12-1 with actions that will support CAB facilities in the BAAF/WRC area.

Table 4.12-1. Potable Water Utility Upgrades

Upgrade type	Units
Water Distribution Lines, Potable	1,650 Linear Feet
Water, PVC	2,182 Linear Feet
Fire Hydrants	Each 3
Water Meter	Each 1
Backflow Preventer	Each 1
Sanitary Sewer	2,800 Linear Feet
Concrete Manholes Pre-Cast up to 8 linear feet	Each 126
Concrete Manholes Pre-Cast over 8 linear feet	Each 260

4.12.1.1.2 Wastewater

Data was collected to determine the current wastewater flow and the size and capacity of the wastewater lift stations and piping from the WRC and BAAF areas. Based upon the projected

development for the area (additional infrastructure and personnel, and increased activity), an estimate of the increased wastewater flow (both sanitary and industrial) will be made.

The current pump, wet well, and piping capacities at Lift Stations #1 and #2 are adequate and capable of managing the anticipated wastewater increase; however, the existing designs do not allow for system redundancy in the case of pump failure, leakages or repairs. Therefore, the recommendation is to:

- Upgrade both pumps (or impellers) at Lift Station #1 to handle at least 550 gallons per minute (gpm) (124,920 l/s). This will add the necessary system redundancy.
- Install a third 550 gpm (124,920 l/s) pump at Lift Station #2 to ensure system redundancy (USAPHC, 2011).

The WWTP (Figure 4.12-1) treats sanitary sewage, in addition to receiving and treating Fort Carson's Industrial Wastewater Treatment Plant (IWTP) effluent, and the sanitary sewage and miscellaneous wastewater from the USAF's nearby Cheyenne Mountain Air Force Station. The IWTP receives wastewater (and some stormwater runoff) from vehicle wash areas and vehicle maintenance facilities. The population served includes residential, non-transient, and transient population and is estimated to be greater than 40,000 but less than 50,000. The actual population served can vary with troop deployments, etc. The present treatment process includes preliminary treatment, aerated flow equalization, secondary treatment with nitrification/denitrification, followed by tertiary filtration and UV disinfection. The hydraulic and organic design capacities are 4 million gallons per day (15,141,647 liters) and 8,500 pounds (3,856 kilograms), biochemical oxygen demand 5/day, respectively.

Preliminary treatment occurs in the headworks building and includes coarse screening, fine screening, aerated grit and grease removal, and flow measurement with a Parshall flume. The effluent from the headworks building normally gravity flows to the aerated flow equalization basin, but it can be routed directly (by gravity flow) at a flow splitter box to the oxidation ditches. Normally the wastewater is pumped from the flow equalization basin and then gravity flows to the oxidation ditches.

There are two 1.4-million gallon (5,299,576-liter) oxidation ditches for providing biological treatment that can be operated in series or parallel. Presently, only one oxidation ditch is being used and is operated to achieve nitrification and some denitrification. The denitrification is achieved by turning the aeration off for approximately an hour after approximately three hours of aeration. There are two 85-foot (26-m) diameter circular clarifiers, with only one being used at the present time.

There are three aerobic digesters for treating the waste activated sludge from the secondary clarifiers. The digesters are operated in batch mode, with supernatant periodically drawn off and additional waste activated sludge added until the desired percent solids in the digester is obtained. Following digestion, the sludge is dewatered on a 6.6-foot (2.0-m) wide belt filter press, with a polymer added to improve the dewatering. The dewatered sludge is temporarily stored on the old sludge drying beds until it is hauled to an off-site landfill for disposal. Fort Carson operates under the general permit issued by Region 8 for the use/disposal of biosolids from Federal facilities in Colorado (COG-652000).



Figure 4.12-1. Aerial View of Fort Carson Wastewater Treatment Plant

Source: Fort Carson, 2010

Identification of Numbers: 1-Headworks Building; 2-Flow Equalization Basin; 3-Oxidation Ditches & Secondary Clarifiers; 4-Tertiary Filtration & UV Disinfection Building; 5-Parshall Flume; 6- Old Chlorine Contact Chamber; 7-Outfall 001; 8-Aerobic Digesters; 9-Sludge Dewatering Building; 10-Sludge Drying Beds

4.12.1.1.3 Stormwater

As a requirement of AR 200-1, it is the policy of the Installation to comply with applicable Federal, state, and local regulations regarding water resources management and permitting. As described in the SWMP (Fort Carson, 2011e) all work performed at Fort Carson is subject to stoppage by Installation environmental officials for failure to comply with Federal, state, county, local, or Fort Carson stormwater requirements.

Three stormwater permits are utilized at Fort Carson as part of the stormwater program: the NPDES General Permit for Stormwater Discharges for Construction Activity in Colorado (COR12000F), MS4 Permit (COR042001), and the EPA's Multi-Sector General Permit (MSGP 2000). The SWMP is designed to reduce the discharge of pollutants from Fort Carson to the maximum extent practicable and to protect water quality. Included in the document are management practices, control techniques, system design, engineering methods, and other provisions appropriate for the control of pollutants in discharges from Fort Carson.

4.12.1.1.4 Solid Waste

The Integrated Solid Waste Management Plan (ISWMP) contains details of the Solid Waste Management Program at the Installation (Fort Carson, 2004). Currently, all solid waste from Fort Carson, including waste from housing units, is shipped to offsite landfills by a licensed contractor.

Fort Carson operates a recycling center located near Gate 3. In addition to the recycling center, there are three additional large drop-off facilities located in the Main Post area. Smaller recycling bins are located near all facilities. As expansion continues on the Fort Carson, the Installation indicates additional recycling containers will be placed at all new facilities. Recyclable materials collected at these sites include paper, plastic, glass, cardboard, wood pallets, aluminum, and scrap metal.

4.12.1.1.5 Energy, Heating, and Cooling

Fort Carson purchases natural gas and electricity from Colorado Springs Utilities. The Installation obtains 2.3 percent of its energy needs from solar panels and is currently researching other sources of renewable energy for future use. Power for maneuvers and target training within the downrange area is supplied locally by battery or generator. The peak historical electrical demand at Fort Carson is 27.9 megavolt amperes (MVA) and the peak historical daily consumption of natural gas at Fort Carson is 9,329 million cubic feet (mcf)/day (261.2 million cubic meters [m^3]/day). Details of the provision of electrical services and natural gas to Fort Carson may be obtained from the 2011 *CAB Stationing PEIS* and 2009 *Fort Carson Grow the Army FEIS*. Since the 2011 *CAB Stationing PEIS* was completed, the Titus Road substation was upgraded to 10 circuits. Additionally, the Installation has initiated NEPA analysis and documentation for the development of alternative energy sources to enable the Installation to meet its Net Zero goals (see Section 4.3.2.3 for discussion of Net Zero).

The primary communication infrastructure at Fort Carson consists of cable lines that run throughout the Main Post area, seven ranges, and WRC/BAAF. The Main Post area infrastructure is sufficient to meet the current needs for personnel and operations; however, as the number of Soldiers and support personnel at Fort Carson increases, significant upgrades to the existing communications infrastructure would be required in the future. Cable extensions have recently been and continue to be extended for various new construction projects underway within the Main Post area. Basic administrative analog telephone and low-speed data are available along Wilderness Road, while the downrange area infrastructure consists of copper and leased fiber lines.

4.12.1.2 Piñon Canyon Maneuver Site

4.12.1.2.1 Potable Water

PCMS purchases treated potable water from the City of Trinidad for use in the cantonment area. The water supply pipeline from Trinidad to the PCMS along US 350 was deteriorated in some areas and leaking, but has since been repaired, largely with Army funding.

4.12.1.2.2 Wastewater

The PCMS cantonment area primarily uses evaporative, non-discharging treatment/oxidation ponds, constructed in 1985 for sanitary wastewater and stormwater treatment. The PCMS cantonment is sloped to drain to a central stormwater collection pipe, connected by underground pipe to a dedicated pond equipped with a dedicated oil water separation. The combined 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 combined 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 and stormwater are conveyed to the treatment ponds through separate underground pipes. Wastewater and stormwater from the PCMS cantonment are conveyed via approximately 7,000 feet (2,134 m) of 8-inch-diameter and 12-inch-diameter (20 and 30-cm-diamater, respectively) 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, HQ building, and the chlorination building are within the PCMS cantonment, and wastewater at those facilities is treated using septic systems. 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 storms or training events.

4.12.1.2.3 Stormwater

The PCMS stormwater system is summarized in the 2011 *CAB Stationing PEIS*. As water resource mitigation measures are part of the 2011 *CAB Stationing ROD,* the Installation has initiated development of a SWMP for PCMS.

4.12.1.2.4 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. Currently, there is no recycling program at PCMS as it requires additional personnel to manage the program; however, an evaluation is in process to facilitate a program in the future.

4.12.1.2.5 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.

4.12.1.2.6 Communications

The communication infrastructure at PCMS consists of fiber optic cables that enter the cantonment area from US 350. As noted in the 2011 *CAB Stationing PEIS*, a project was completed in 2006 to provide upgraded information/communication infrastructure downrange on Fort Carson and PCMS and to provide connectivity between Fort Carson and PCMS. A

combination of towers and several equipment shelters at Pueblo Chemical Depot and Cedar Crest provide connectivity between Fort Carson and PCMS.

4.12.2 Environmental Consequences

4.12.2.1 No Action

Under the No Action Alternative, Fort Carson would retain their aviation force structure at its current levels, configurations, and locations. There would be no change to utilities at Fort Carson or PCMS, as CAB training and construction activities would not be implemented under the No Action Alternative. The No Action Alternative includes BRAC-directed actions, Grow the Army stationing decisions, and other directed stationing actions that would occur prior to the start of FY 2013 (October 1, 2012).

4.12.2.2 Proposed Action

The proposed action would moderately impact utilities, but all can be mitigated. As Fort Carson upgrades and expands its utility infrastructure to meet CAB stationing implementation needs, the Installation would continue to strive to reach its sustainability goals (Fort Carson, 2011d), mitigating potential impacts to utilities and their associated infrastructure.

As discussed in the 2011 *CAB Stationing PEIS*, demand for potable water both on Fort Carson and off-post would increase as a result of CAB stationing implementation. The total average on-post daily water demand for the CAB is estimated to be 240,625 gallons per day (910,766 Lpd) with a seasonal peak water demand of 387,000 gallons per day (1,464,795 Lpd) during summer months (HDQA, 2011a). Without implementation of further water conservation measures, this would potentially increase Fort Carson's water usage by approximately 10 percent. With approximately 50 percent of the CAB's Soldiers and Family members living off-post, a similar estimate for water demand off-post is anticipated to be approximately 165,000 gallons per day (624,525 Lpd). To lessen the impact of increased water demand, Fort Carson would continue to implement water use reduction measures such as low-flow toilets and waterless urinals, xeriscaping, and use of grey water for irrigation.

An 8-inch (20.3-cm) water main was recently extended from BAAF to the Wilderness Road to support construction of facilities at the WRC. Water line extensions to this and the two previously-existing waterlines, which run down Butts Road to the BAAF, would connect these mains to each of the facilities to be constructed under the proposed action. No significant impact to the water supply infrastructure is expected to result from CAB stationing implementation.

The water tank and potable water distribution system in the cantonment area of PCMS is currently operating within capacity and would accept water demands from additional training units, to include CAB units (HDQA, 2011a). No significant impact to the water supply system is anticipated as a result of CAB stationing implementation.

Increased personnel and training activities would result in increased generation of wastewater. The WWTP has adequate capacity to handle the increased population and new mission activities that would come to Fort Carson as a result of the CAB stationing implementation. As stated above, data is being collected to determine the current wastewater flow and the size and capacity of the wastewater lift stations and piping from the WRC and BAAF areas. Based upon the projected development for the area (i.e., additional infrastructure and personnel, and increased activity), an estimate of the increased wastewater flow (both sanitary and industrial) would be made. Using that information, it would be determined whether the current lift stations and piping are adequate for the future wastewater flow from both areas. The recent upgrade of the WWTP provides adequate capacity for increased wastewater flows. No significant impact to

the wastewater treatment system at Fort Carson is expected to result from CAB stationing implementation. Overall, construction of the CAB facilities at Fort Carson could result in stormwater runoff from land disturbance sites and increased sedimentation in waterways beyond the project site boundary in and around the WRC and BAAF. Compliance with the NPDES General Permit for Stormwater Discharges for Construction Activity in Colorado (COR12000F) is an existing measure that reduces impacts associated with stormwater runoff during construction. Therefore, sedimentation from construction runoff is anticipated to be negligible.

The stormwater system at PCMS is not expected to be significantly impacted; however, as mentioned under Section 4.12.1.2.3, the Installation has initiated development of a SWMP for PCMS. This SWMP would describe, in one document, the current management and mitigation measures that are in place at PCMS to promote BMPs and protect water resources from sediment and pollutants.

Through the continued implementation of existing procedures for solid waste management and provision of contract services for solid waste disposal, CAB stationing implementation would not cause significant impacts to solid waste management at Fort Carson or PCMS.

Upgrades to the electrical system at BAAF would be necessary to continue to meet electrical demands for this area. Expansion of the electrical system at WRC would be necessary to support CAB-related new construction. Recent upgrades to gas lines within and to the Main Post area and the additional line would adequately support gas demands within the Main Post area, but upgrades would be required in the downrange area.

To reduce energy consumption resulting from the construction and renovation of CAB facilities, the U.S. Army Construction Engineering Research Laboratory was tasked to conduct a study to assess potential for synergy of CAB facilities energy needs and the feasibility of building a CEP that would produce hot and chilled water to be used for heating and cooling throughout the CAB complex (CERL, 2011). This study was initiated as the CAB complex, which includes facilities at WRC and BAAF, was initially designed in a standard configuration as a grouping of individual structures without regard for possible efficiencies of sharing heating and cooling capacity or trading off the diurnal nature of many power requirements (e.g., early morning ablutions, dining cycles, evening cooling, and administrative facility lighting requirements). Because of MILCON Transformation, the design responsibilities fall to multiple engineering teams throughout the country without an effective central force available to affect energy systems planning and design integration. The objective of the CEP, whose construction is part of the proposed action, is to increase energy efficiency in the area by replacing individual heating and cooling units at every structure with a centrally controlled and balanced plant and to reduce energy waste with generation of electricity through cogeneration.

CAB facilities have been programmed and are being planned to be programmed for funding in FYs 2012, 2014, 2015, and future years; therefore, facilities construction would occur in several stages. In adherence to the Net Zero emissions strategy (NREL, 2010), the above-mentioned study is envisaged to cover the heating and cooling demand of the CAB-related development from renewable energy sources as far as technically and economically feasible. To achieve this, the study examines a centralized energy supply system which feeds into a district heating and cooling network (CERL, 2011). Centralized energy systems can use co- or tri-generation, which significantly increases energy efficiency as compared to a decentralized energy system where heating, cooling, and electricity are generated separately. The CEP would ultimately provide energy to all facilities at the WRC and BAAF.

The CEP is is proposed to be sited in the WRC in a location that, in part, would provide the greatest flexibility for distribution and service lines to all CAB projects and facilities. No significant impacts to energy, heating, and cooling resources or infrastructure are expected occur at Fort Carson. With construction of the planned CEP, impacts are expected to be less than they would have been using traditional methods.

As no construction at PCMS is associated with the proposed action, no significant impacts to energy, heating, and cooling resources or infrastructure would occur.

Although CAB stationing implementation is not expected to significantly impact Fort Carson's communications infrastructure, the communications infrastructure would need to be expanded to ensure connectivity of new CAB facilities to the system. Cable extensions, which have recently been and are currently being built, would also be built in association with facilities construction to support the CAB. As the number of Soldiers and support personnel at Fort Carson increases, significant upgrades to the existing communications infrastructure would be required several years in the future. As no construction to support the CAB is required at PCMS, no significant impacts to the communications system at Fort Carson is anticipated as a result of CAB stationing implementation.

In summary, new sanitary sewer lines, potable water lines, and communication lines would be installed at WRC and BAAF. In addition, new industrial wastewater lines would be installed at BAAF. Lastly, there is a potential for wastewater lift stations needing to be built as part of the proposed action. No additional upgrades to the IWTP or the WWTP are needed.

4.12.2.3 Cumulative Effects

The cumulative impact to utilities consists of past, present, and reasonably foreseeable future actions which affect the capacity or use of utilities on and around Fort Carson and PCMS. The proposed action would result in an increase in Fort Carson Soldiers and Families. This increase in population and the additional mission activities would cause an increased demand for water, wastewater treatment, and electricity. Under a separate action, the Installation is investigating further opportunities to conserve water, reduce waste, and reduce its energy usage as part of it being one of the installations participating in the Army's Net Zero Initiative (HQDA, 2011c). NEPA analysis for Net Zero actions (see Section 4.3.2.3 for discussion of Net Zero) on Fort Carson is currently underway.

The result of the proposed action in combination with other Army actions and regional growth and development discussed in Section 2.3.4 would put usage of water by Colorado Springs Utilities closer to the firm yield for raw water by 2012. Adverse cumulative effects can be offset if Fort Carson continues to aggressively pursue water conservation, as is anticipated from the Army's announcement that Fort Carson is one of the installations participating in the Army's Net Zero Initiative (HQDA, 2011c). In addition, actions such as replacing existing deteriorating water lines on-post and the proposed Colorado Springs Utilities Southern Delivery System would offset cumulative impacts to firm yield for raw water.

Increased numbers of personnel and training activities at PCMS as a result of the proposed action, when combined with other past, present, and reasonably foreseeable future actions, can result in the generation of wastewater at PCMS that exceeds the capacity of existing septic systems and portable toilets. To mitigate this impact, the PCMS would arrange for septic systems to be serviced at a greater frequency and contract for additional portable toilets when needed. No additional mitigation would be required.

Implementation of the proposed action can be accommodated by existing wastewater. Upgrades to Fort Carson's existing utility infrastructure would be built to handle increased

demand, such as the on-site wastewater disposal systems. Thus, less than significant cumulative effects are anticipated.

This Page Intentionally Left Blank.

4.13 HAZARDOUS AND TOXIC SUBSTANCES

4.13.1 Affected Environment

4.13.1.1 Fort Carson and Piñon Canyon Maneuver Site

Hazardous and toxic materials used at Fort Carson 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 Fort Carson and PCMS. This includes the proper handling and 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 (also known as the Waste Minimization Plan), Polychlorinated Biphenyl (PCB) Management Plan, Integrated Pest Management Plan, Facility Response Plan, Hazardous Waste Management Plan (HWMP), and the Spill Prevention, Control, and Countermeasures Plan (SPCCP).

4.13.2 Environmental Consequences

4.13.2.1 No Action

Under the No Action Alternative, Fort Carson would retain their aviation force structure at its current levels, configurations, and locations. There would be no change to hazardous and toxic substance at Fort Carson or PCMS, as CAB training and construction activities would not be implemented under the No Action Alternative. The No Action Alternative includes BRAC-directed actions, Grow the Army stationing decisions, and other directed stationing actions that would occur prior to the start of FY 2013 (October 1, 2012).

4.13.2.2 Proposed Action

Renovation of facilities at the BAAF could create additional lead, asbestos, PCBs, and chlorofluorocarbon wastes. Impacts from construction of CAB facilities at Fort Carson, to include renovation and demolition activities, would be less than significant, because there would be minimal risk of human or environmental exposure to hazardous materials used or hazardous wastes generated during construction. Increased live-fire activities associated with CAB training would result in the generation of small amounts of additional expended small arms ammunition UXO. Ammunition handling and storage methods, disposal protocols, and safety procedures would continue to be conducted. CAB operations and training at Fort Carson, including training and maintenance activities at PCMS and the FARPs, 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. 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.

4.13.2.3 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 a CAB stationing, 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 handle the increased quantities. The Installation is currently considering a variety of proposed initiatives under a forthcoming Net Zero NEPA analysis to minimize hazardous waste (HDQA, 2011c).

5 ACRONYMS

Acronym	Definition
ACHP	Advisory Council on Historic Preservation
ACP	Access Control Point
ACUB	Army Compatible Use Buffer
ADNL	A-weighted day-night average level
AGL	above ground level
AHB	assault helicopter battalion
APE	Area of Potential Effect
AR	Army Regulation
ARB	attack reconnaissance battalion
ASB	aviation support battalion
A-YDNL	A-weighted yearly day-night average level
BAAF	Butts Army Airfield
BAER	Burned Area Emergency Response/Rehabilitation
BASH	bird air strike hazard
BCT	brigade combat team
BLM	Bureau of Land Management
BMP	best management practice
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CAB	Combat Aviation Brigade
CDNL	C-weighted day-night average level
CDOW	Colorado Division of Wildlife
CEP	central energy plant
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cfs	cubic foot per second
cm	centimeter
CO	carbon monoxide
CO_2	carbon dioxide
COSHPO	Colorado State Historic Preservation Officer
CPTS	Comprehensive Post-wide Transportation Study
CWA	Clean Water Act
CWD	Chronic Wasting Disease
dB	decibel
dBA	A-weighted decibel
DNL	day-night sound level
DoD	Department of Defense
DPW	Directorate of Public Works

Acronym	Definition
EA	environmental assessment
EIS	environmental impact statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FARP	forward arming and refueling point
FEIS	Final Environmental Impact Statement
FNSI	Finding of No Significant Impact
FY	fiscal year
GHG	greenhouse gas
gpm	gallons per minute
GSAB	general support aviation battalion
ha	hectare
HAP	hazardous air pollutant
Hg	mercury
HHC	headquarters and headquarters company
HQ	headquarters
HQDA	Headquarters, Department of the Army
HVAC	heating, ventilating, and air conditioning
HWMP	Hazardous Waste Management Plan
I-	Interstate
IAW	In accordance with
ICRMP	Integrated Cultural Resources Management Plan
IFR	Instrument Flight Rules
INRMP	Integrated Natural Resources Management Plan
ISWMP	Integrated Solid Waste Management Plan
ITAM	Integrated Training Area Management
IWTP	Industrial Wastewater Treatment Plant
km	kilometers
kVA	kilovolt ampere
l/s	liters per second
LEED	Leadership in Energy and Environmental Design
LOS	level of service
Lpd	liters per day
LUPZ	land use planning zone
m	meter
m^2	square meter
m^3	cubic meter
mcf	million cubic feet

Acronym	Definition
METL	Mission-Essential Task List
mg/l	milligram per liter
µm	micrometer
MILCON	military construction
MIM	Maneuver Impact Mile
mm	millimeter
MOA	military operations area
MS4	Municipal Separate Storm Sewer
MVA	megavolt amperes
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves and Repatriation Act
NDAA	National Defense Authorization Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOE	nap-of-the-earth
NOI	Notice of Intent
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O_3	ozone
OHC	Old Hospital Complex
ORTC	Operational Readiness Training Center
P2	Pollution Prevention
PA	Programmatic Agreement
PCB	polychlorinated biphenyl
pCi/L	picocuries per liter
PCMS	Piñon Canyon Maneuver Site
PEIS	Programmatic Environmental Impact Statement
PM	particulate matter
ppm	parts per million
PSD	Prevention of Significant Deterioration
PVC	Polyvinyl chloride
ROD	Record of Decision
ROI	region of influence
Se	selenium
sf	square foot
SH	State Highway
SIP	State Implementation Plan

Acronym	Definition
SO_2	sulfur dioxide
SOP	Standard Operating Procedure
SO_x	sulfur oxides
SPCCP	Spill Prevention, Control, and Countermeasures Plan
SUA	special use airspace
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TCP	traditional cultural property
TNC	The Nature Conservancy
tpy	tons per year
TUAV	tactical unmanned aerial vehicle
UAS	unmanned aircraft system
UMMCA	Unspecified Minor Military Construction, Army
US	U.S. Highway
USACE	U.S. Army Corps of Engineers
USAEC	U.S. Army Environmental Command
USAF	U.S. Air Force
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
UXO	unexploded ordnance
VEC	Valued Environmental Component
VFR	Visual Flight Rules
VOC	volatile organic compound
WRC	Wilderness Road Complex
WWTP	Wastewater Treatment Plant

6 LIST OF PREPARERS

6.1 FORT CARSON AND INSTALLATION POINTS OF CONTACT

Name	Installation, Affiliation, or Organization	Role
Beall, Dawn	Fort Carson	Forester
Benford, James	Fort Carson	Chief, Training
Bradbury, Mark	Fort Carson	Compliance Branch (ECRB) Chief
Bunn, Richard	Fort Carson	Wildlife, Bird Expert
Burton, Kacey	Fort Carson	Archaeologist
Christensen, Dennis	Fort Carson	Master Planning, Architect/Planner (Master Planner)
Cox, Steven	Fort Carson G-3 Aviation (FORSCOM)	MSE G-3 Plans
Davis, Bert	Fort Carson	Range Officer
Frank, Jessica	Fort Carson	Stormwater Program Manager
Gallegos, Joseph	Fort Carson	Installation Restoration Program Manager / Section Chief
Granger, Eldon	Fort Carson	Aboveground Storage Tanks Program Manager
Gray, Danny	Fort Carson	Forester
Hamilton, John	Fort Carson	Environmental Law Specialist
Hennessy, William	Fort Carson	Environmental Law Specialist
Johnson, Bradley (CPT)	Fort Carson	NEPA Coordinator
LaCoursiere, Sandra	Fort Carson	Aviation Division, Butts Army Airfield Manager
Lapp, Terrance	Fort Carson G-3 Aviation (FORSCOM)	4th Infantry Division, DSTB, A Co, TAC Ops Officer
Linn, Jeffrey	Fort Carson	Natural Resources Manager
Manzanares, Dorothy	Fort Carson	GIS Lead Person
McDermott, James	Fort Carson	Natural Resources
McNutt, Doraine	Fort Carson	Public Affairs Officer
Miller, Pam	Fort Carson	Cultural Resources Manager
Noonan, Harold	Fort Carson	Wastewater Section Reviewer
Orphan, Richard	Fort Carson	Traffic Engineer
Owings, Debra	Fort Carson	NEPA Program Manager
Peyton, Roger	Fort Carson	Wildlife Section Reviewer
Rivero-deAguilar, Carlos	Fort Carson	Environmental Division Chief
Silloway, Glen	Fort Carson	Fire Chief, Fort Carson Fire & Emergency Services
Smith, Stephanie	Fort Carson	Wildlife Biologist
Thomas, George	Fort Carson	NEPA/Cultural Branch Chief
Waters, Lorraine	Fort Carson	Community Relations
Whiting, Betty	Fort Carson	Section 106 Specialist / Archaeologist

Name	Installation, Affiliation, or Organization	Role
Wiersma, Thomas	Fort Carson	Master Planner
Wyka, Joseph	Fort Carson	Directorate of Public Works Director (Acting) & Directorate of Public Works Division Chief Engineer
Yohn, Rich	Fort Carson	P2/EMS/Noise Coordinator

6.2 ARMY ENVIRONMENTAL COMMAND

Name	Installation, Affiliation, or Organization	Role
Bucci, Thomas	U.S. Army Environmental Command	Legal (Office of Counsel); Sections Writer Chapters 1-3.
Jeter, Julie	U.S. Army Environmental Command	Section Writer: Biological Resources, Geology and Soils
Johnson, David	U.S. Army Environmental Command	Section Writer: Hazardous Waste
Josephson, Paul	U.S. Army Environmental Command	Section Writer: Air Quality and GHG
Klinger, Pamela	U.S. Army Environmental Command	CAB EA Project Manager; Sections Writer Chapters 1-3; Land Use; Socioeconomics; Airspace; Solid Waste; Energy, Heating, and Cooling; Communications; Geology and Soils
Kropp, Cathy	U.S. Army Environmental Command	Public Affairs Specialist
Leahy, Kristin	U.S. Army Environmental Command	Section Writer: Cultural Resources
Lindblom, Vibeke	U.S. Army Environmental Command	Section Writer: Water Resources; Potable Water, Wastewater
Soltren, Elisa	U.S. Army Environmental Command	Section Writer: Water Resources; Stormwater

6.3 OTHERS

Name	Installation, Affiliation, or Organization	Role
Broska, Kristy	U.S. Army Public Health Command	Section Writer: Noise. Also, Noise Study Writer
Cearfoss, Jennifer	U.S. Army Public Health Command	Wastewater Studies
Fifty, William	U.S. Army Public Health Command	Wastewater Studies
Grabowski, Theodore	Installation Management Command - Central	Region POC
Howlett, Dave	ELD, U.S. Army Legal Services Agency	Legal
Kirchner, Nathaniel	Gannett Fleming	Section Writer: Traffic and Transportation
Jones, Brian	U.S. Army Public Health Command	Air Study and Support to Section Writer for Air Section of EA (Section Chief / Program Manager)

Name	Installation, Affiliation, or Organization	Role
Polyak, Lisa	U.S. Army Public Health Command	Air Study and Support for Air Section of EA
Rozyckie, Stephen	Gannett Fleming	Section Writer: Traffic and Transportation
Stewart, Catherine	U.S. Army Public Health Command	Program Manager, Operational Noise Program

6.4 POTOMAC-HUDSON ENGINEERING TEAM

Name	Installation, Affiliation, or Organization	Role
DiPaolo, Paul	Potomac-Hudson Engineering, Inc.	EA Reviewer/Document Manager
Ford, Robert	Gryphon Environmental, Inc.	Public Involvement
Martin-McNaughton, Jamie	Potomac-Hudson Engineering, Inc.	Sharepoint Coordinator
Naumann, Robert	Potomac-Hudson Engineering, Inc.	EA Reviewer
Sanford, Melissa	Potomac-Hudson Engineering, Inc.	EA Reviewer
Spangenberg, Rachel	Potomac-Hudson Engineering, Inc.	Public Involvement/Document Production
Walker, Debra	Potomac-Hudson Engineering, Inc.	Project Manager/QA/QC Manager

This Page Intentionally Left Blank.

7 REFERENCES

5 Code of Colorado Regulations (CCR) 1002-93, Colorado Regulation #93

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

40 Code of Federal Regulations (CFR) Parts 1500-1508.

Fort Carson. 2011. *Butts Army Airfield: Wildlife Hazard Management*. Prepared for and approved by Fort Carson, CO, August 2011

Cannon Air Force Base. 2011. Draft *Environmental Assessment for the Establishment of Low Altitude Training for Cannon AFB, New Mexico*, August 2011. Available on the Web at: http://www.cannon.af.mil/shared/media/document/AFD-110909-039.pdf

Colorado Department of Transportation (CDOT). 2012. Truck Data. Vehicle Traffic Volumes and Truck Weights on Colorado State Highways. Available at http://apps.coloradodot.info/dataaccess/Traffic/index.cfm?fuseaction=TrafficMain&MenuType=Traffic

Colorado Department of Public Health and Environment (CDPHE). 2009. *Revised Carbon Monoxide Attainment/Maintenance Plan, Colorado Springs Attainment/Maintenance Area*.

CDPHE. 2011. CDPHE review of the Final Site Wide Selenium Study, Occurrence and Distribution of Selenium in Groundwater, Fort Carson, CO. November 8, 2011.

U.S. Army Construction Engineering Research Laboratory (CERL). 2011. *Preliminary Report, Energy Supply Options for Fort Carson Combat Aviation Brigade*, August 3, 2011 DRAFT. Prepared by U.S. Army Construction Engineering Research Laboratory.

Directorate of Environmental Compliance and Management (DECAM). 2004. Biological Assessment and Management Plan for the Black-tailed Prairie Dog on Fort Carson and the Piñon Canyon Maneuver Site. 7th Infantry Division and Fort Carson. Fort Carson, CO. January, 2004.

DefenseNews. 2011. "US. Army May Cut 22 Percent Of Brigades", 24 October 2011. Available on the Web at http://www.defensenews.com/story.php?i=8031422&c=FEA&s=CVS

U.S. Department of Health and Human Services (DHHS). 2003. *ToxFAQs™ for Selenium (CAS # 7782-49-2)*, September 2003. Agency for Toxic Substances and Disease Registry (ATSDR). Available from http://www.atsdr.cdc.gov/tfacts92.html#bookmark06.

U.S. Department of Defense (DoD). 2008. Unified Facilities Criteria (UFC), Airfield and Heliport Planning and Design, UFC 3-260-01. Department of Defense, November 17, 2008 (available on the Web at http://www.wbdg.org/ccb/DOD/UFC/ufc_3_260_01.pdf).U.S. Environmental Protection Agency (EPA). 2000. *Selenium Compounds, Hazards Summary*, January 2000. EPA, Washington, D.C. Available from http://www.epa.gov/ttn/atw/hlthef/selenium.html.

Field Manual 7-1, Battle Focused Training

Fort Carson. 1980a. *Draft Environmental Impact Statement – Training Land Acquisition for Fort Carson, Colorado*, 1980. Prepared by Headquarters, Fort Carson and 4th Infantry Division (Mechanized).

Fort Carson. 1980b. *Final Environmental Impact Statement – Training Land Acquisition for Fort Carson, Colorado*, 1980. Prepared by Headquarters, Fort Carson and 4th Infantry Division (Mechanized).

Fort Carson. 1980c. *Memorandum of Agreement Regarding Fort Carson Military Reservation among Fort Carson, the SHPO, and the Advisory Council on Historic Preservation*, 1980.

Fort Carson. 1998. *Draft Environmental Assessment (programmatic) for the Erosion and Sediment Control Program at Fort Carson*, Directorate of Environmental Compliance and Management, Fort Carson, CO. October 1998.

Fort Carson. 2002a. *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. 2002b. 25-Year Sustainability Goals, as amended.

Fort Carson. 2004. *Integrated Solid Waste Management Plan*, November 2004, Fort Carson, CO.

Fort Carson. 2006a. *Piñon Canyon Maneuver Site Traffic Study*. May 2006. Fort Carson Directorate of Public Works.

Fort Carson. 2006b. *Installation Environmental Noise Management Plan, Fort Carson, Colorado*. Prepared for and approved by Fort Carson, CO. Prepared by U.S. Army Center for Health Promotion and Preventive Medicine. January 2006.

Fort Carson. 2007a. *Environmental Assessment – Use of National Forest System Lands for Mountain/High Altitude Military Helicopter Training*, October 2007. Prepared by Gene Stout and Associates, Loveland, CO. Prepared for and approved by Fort Carson, CO.

Fort Carson. 2007b. 2007 *Final Piñon Canyon Maneuver Site Transformation Environmental Impact Statement*

Fort Carson. 2007c. *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. 2011a. January 2011, *Environmental Assessment, Piñon Canyon Maneuver Site (PCMS) Transformation, Fort Carson, Colorado*. Prepared by Fort Carson Directorate of Public Works. Available on the Web at: http://www.carson.army.mil/pcms/documents/2011_Final_EA.pdf.

Fort Carson. 2011b. *Integrated Wildland Fire Management Plan, Fort Carson and Piñon Canyon Maneuver Site*. Department of the Army. 2011. Fort Carson, CO.

Fort Carson. 2011c. Personal Communication with Master Planning. November 2011.

Fort Carson. 2011d. Sustainable Fort Carson. Available from Web site <http://www.carson.army.mil/paio/sustainability.html>. Accessed November 22, 2011.

Fort Carson. 2011e. December 2011 *Stormwater Management Plan, Fort Carson, Colorado*. Prepared by AECOM Technical Services, Inc. Prepared for and approved by Fort Carson.

Fort Carson. 2012. Fort Carson Fugitive Dust Control Plan, March 2012. Prepared and approved by Fort Carson, CO.

Headquarters, Department of the Army (HDQA). 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-final-peis_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.

HQDA. 2011c. "Army launches 'Net Zero' pilot program", April 20, 2011. Available from Web site <http://www.army.mil/article/55280/>

U.S. Department of Agriculture, Natural Resource Conservation Service (NRCS). 2011. Web Soil Survey (WSS). USDA NRCS, Washington, D.C. Available from http://websoilsurvey.nrcs.usda.gov/app/.

National Renewable Energy Laboratory (NREL). 2010. *Net Zero Energy Military Installations: A Guide to Assessment and Planning*, Technical Report NREL/TP-7A2-48876, August 2010. Authored by Samuel Booth, John Barnett, Kari Burman, Josh Hambrick and Robert Westby of the National Renewable Energy Laboratory (NREL).

Stevens, et. al. 2008. *U.S. Geological Survey Scientific Investigations Report 2008-5111, Temporal and Spatial Variations in Precipitation, Streamflow, Suspended-Sediment Loads and Yields, and Land-Condition Trend Analysis at the U.S. Army Piñon Canyon Maneuver Site, Las Animas County, Colorado, 1983 through 2007*, posted July 2008. Stevens, M.R.; Dupree, J.A.; and Kuzmiak, J.M. USGS, Reston, VA. Available from http://pubs.usgs.gov/sir/2008/5111/.

Summit Technical Resources, Incorporated. 2011. Site Wide Selenium Study. Occurrence and Distribution of Selenium in Groundwater Fort Carson, CO. August 2011.

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. 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. Army Public Health Command (USAPHC). 2011. Draft Wastewater Study, No. 32-EE-OFB4-12 Lift Station, Fort Carson, November 2011.

This Page Intentionally Left Blank.

Appendix A

Operational Noise Consultation
No. 52-EN-0FKB-12
Operational Noise Assessment,
Heavy Combat Aviation Brigade Stationing,
Fort Carson, CO

This Page Intentionally Left Blank.

DEPARTMENT OF THE ARMY
US ARMY INSTITUTE OF PUBLIC HEALTH
5158 BLACKHAWK ROAD
ABERDEEN PROVING GROUND, MD 21010-5403

MCHB-IP-EON

10 NOV 2011

MEMORANDUM FOR Environmental Division (IMWE-CAR-PWE/Mr. Wayne Thomas), NEPA and Cultural Management, Directorate of Public Works, 1626 O'Connell Blvd, Fort Carson, CO 80913

SUBJECT: Operational Noise Consultation, 52-EN-0FKB-12, Operational Noise Assessment, Heavy Combat Aviation Brigade Stationing, Fort Carson, CO, 06 October 2011

1. We are enclosing a copy of the consultation.

2. Please contact us if this consultation or any of our services did not meet your needs or expectations.

3. The point of contact is Ms. Kristy Broska or Ms. Catherine Stewart, Program Manager, Operational Noise, Army Institute of Public Health, at DSN 584-3829, Commercial (410) 436-3829, or email: kristy.broska@us.army.mil or catherine.stewart@us.army.mil.

FOR THE DIRECTOR:

William J. Bettin

WILLIAM J. BETTIN
LTC, MS
Portfolio Director, Environmental Health Engineering

Encl

CF:
AEC, (IMAE-TSP/Ms. Lindy McDowell)
AEC, (IMAE-TSP/Ms. Pamela Klinger)
PHCR-West (MCHB-AW-EH/Ms. Elisabeth Hardcastle)

DEPARTMENT OF THE ARMY
US ARMY INSTITUTE OF PUBLIC HEALTH
5158 BLACKHAWK ROAD
ABERDEEN PROVING GROUND, MD 21010-5403

MCHB-IP-EON

8 MAR 2012

MEMORANDUM FOR Environmental Division (IMWE-CAR-PWE/Mr. Wayne Thomas), NEPA and Cultural Management, Directorate of Public Works, 1626 O'Connell Blvd, Fort Carson, CO 80913

SUBJECT: Errata Operational Noise Consultation, 52-EN-0FKB-12, Operational Noise Assessment, Heavy Combat Aviation Brigade Stationing, Fort Carson, CO, 06 October 2011

1. Enclosed is page 12 with corrected information regarding aviation activity. Use corrected version as replacement for page 12 of Operational Noise Consultation, 52-EN-0FKB-12, Operational Noise Assessment, Heavy Combat Aviation Brigade Stationing dated 10 Nov 2011.

2. Please contact us if we can be of further assistance.

3. The point of contact is Ms. Kristy Broska or Ms. Catherine Stewart, Program Manager, Operational Noise, Army Institute of Public Health, at DSN 584-3829, Commercial (410) 436-3829, or email: kristy.broska@us.army.mil or catherine.stewart@us.army.mil.

FOR THE DIRECTOR:

William J. Bettin

Encl

WILLIAM J. BETTIN
LTC, MS
Portfolio Director, Environmental Health Engineering

CF:
AEC, (IMAE-TSP/Ms. Lindy McDowell)
AEC, (IMAE-TSP/Ms. Pamela Klinger)
PHCR-West (MCHB-AW-EH/Ms. Elisabeth Hardcastle)

USAPHC
U.S. ARMY PUBLIC HEALTH COMMAND
5158 Blackhawk Road, Aberdeen Proving Ground, Maryland 21010-5403

OPERATIONAL NOISE CONSULTATION
NO. 52-EN-0FKB-12
OPERATIONAL NOISE ASSESSMENT
HEAVY COMBAT AVIATION
BRIGADE STATIONING
FORT CARSON, CO
06 OCTOBER 2011

CHPPM/PHC FORM 433-E (MCHB-CS-IP), SEP 10

Distribution authorized to U.S. Government agencies only; protection of privileged information evaluating another command; November 2011. Environmental Division (IMWE-CAR-PWE/Mr. Wayne Thomas), NEPA and Cultural Management, Directorate of Public Works, 1626 O'Connell Blvd, Fort Carson, CO 80913

Preventive Medicine Survey: 40-5f1

DESTRUCTION NOTICE - Destroy by any method that will prevent disclosure of contents or reconstruction of the document.

DEPARTMENT OF THE ARMY
US ARMY INSTITUTE OF PUBLIC HEALTH
5158 BLACKHAWK ROAD
ABERDEEN PROVING GROUND, MD 21010-5403

MCHB-IP-EON

EXECUTIVE SUMMARY
OPERATIONAL NOISE CONSULTATION
NO. 52-EN-0FKB-12
OPERATIONAL NOISE ASSESSMENT
HEAVY COMBAT AVIATION BRIGADE STATIONING
FORT CARSON, CO
06 OCTOBER 2011

1. PURPOSE. To provide an assessment of the noise impacts from the Heavy Combat Aviation Brigade (CAB) stationing at Fort Carson, CO.

2. FINDINGS.

a. Aviation Activity. Based on Army Regulation 200-1, the baseline and projected annual average noise levels attributable to the aviation activity is compatible with surrounding land use. Though the annual average noise levels are compatible, there is potential for individual overflights to cause annoyance and possibly generate noise complaints.

b. Weapon Activity.

(1) The large caliber weapon activity attributed to the projected CAB activity was acoustically insignificant and did not change the large caliber noise contours.

(2) For the baseline and projected large caliber weapon activity, the on-post Zone II encompasses most of the Wilderness Road Complex (WRC). Limiting or relocating the artillery firing occurring in Training 07 would lessen the large caliber weapon noise levels in the WRC.

(3) As small caliber noise contours are based on peak noise levels, the addition of the CAB activity does not change the noise contours.

3. RECOMMENDATIONS. Incorporate this noise assessment into the National Environmental Policy Act documentation for the proposed CAB stationing.

TABLE OF CONTENTS

Paragraph Page

1. REFERENCES....1

2. AUTHORITY....1

3. PURPOSE....1

4. BACKGROUND....1

5. NOISE ASSESSMENT PROCEDURES....2

6. REGULATORY REQUIREMENTS....3

7. AIRFIELD AVIATION ACTIVITY....4

a. Existing Activity....4
b. Projected Activity....5

8. AIRFIELD NOISE MODELING RESULTS....7

9. OVERFLIGHT NOISE ASSESSMENT....10

10. WEAPON NOISE ASSESSMENT....14

a. Small Caliber Ranges....14
b. Demolition and Large Caliber Weapon Ranges....17

11. CONCLUSIONS AND RECOMMENDATIONS....20

Appendices

A - References....A-1
B - Glossary of Terms, Acronyms and Abbreviations....B-1
C - U.S. Army Noise Zone Descriptions....C-1
D – Airfield Contour Comparison....D-1
E – Weapon Expenditure....E-1

List of Figures

Figure 1. BAAF Baseline Annual Average Noise Contours 8
Figure 2. BAAF Projected Annual Average Noise Contours 9
Figure 3. Fort Carson Small Caliber Noise Contours 15
Figure 4. PCMS Small Caliber Noise Contours 16
Figure 5. Fort Carson Baseline Demolition and Large Caliber Noise Contours 18
Figure 6. Fort Carson Projected Demolition and Large Caliber Noise Contours 19

List of Tables

Table 1. Noise Zone Decibel Levels 3
Table 2. BAAF Tower Count 4
Table 3. Baseline Annual Aviation Activity 5
Table 4. Baseline Average Daily Aviation Activity 5
Table 5. Heavy CAB Critical Flying Hours, Full Spectrum Operations Training Strategy 6
Table 6. Projected Annual CAB Aviation Activity 6
Table 7. Projected Average Daily CAB Aviation Activity 7
Table 8. Maximum Noise Levels of Aircraft 10
Table 9. Percentage of Population Highly Annoyed From Aircraft Noise 10
Table 10. Overflight Annoyance Potential 11
Table 11. Projected Helicopter ADNL 13
Table 12. Attack Battalion STRAC Requirements 17

OPERATIONAL NOISE CONSULTATION
NO. 52-EN-0FKB-12
OPERATIONAL NOISE ASSESSMENT
HEAVY COMBAT AVIATION BRIGADE STATIONING
FORT CARSON, CO
06 OCTOBER 2011

1. REFERENCES. A list of the references used in this consultation is in Appendix A. A glossary of terms and abbreviations used are in Appendix B. Appendix C contains the regulatory requirements.

2. AUTHORITY. The Army Environmental Command, San Antonio, TX funded this consultation to support Operational Noise Programs at multiple sites.

3. PURPOSE. To provide an assessment of the noise impacts from the Heavy Combat Aviation Brigade (CAB) stationing at Fort Carson, CO. The CAB activity would include aviation flights, small arms firing, and aerial gunnery activity.

4. BACKGROUND.

a. In March 2011, the Army announced its decision to activate a new CAB and stand it up at Fort Carson, resulting in a total growth in Army forces and equipment of approximately 2,700 Soldiers and 113 helicopters. Implementation of the stationing decision will include construction of new facilities at Fort Carson, as well as CAB training operations at Fort Carson and Piñon Canyon Maneuver Site (PCMS). This decision is documented in the *Record of Decision for the Realignment, Growth, and Stationing of Army Aviation Assets*, signed by the Assistant Deputy Chief of Staff, G-3/5/7, on March 25, 2011.

b. Noise impacts related to the proposed CAB activity were previously addressed in:

- February 2011 *Final Programmatic Environmental Impact Statement (PEIS) for the Realignment, Growth, and Stationing of Army Aviation Assets*.
- February 2009 *Final Environmental Impact Statement (FEIS) for Implementation of Fort Carson Grow the Army Stationing Decisions.*

c. The proposed action includes construction of CAB facilities at the Wilderness Road Complex (WRC) located west of Butts Army Airfield (BAAF). The CAB complex would include headquarters, barracks, company operations, classrooms, and vehicle maintenance facilities.

5. NOISE ASSESSMENT PROCEDURES.

a. Aviation Activity.

(1) The noise simulation program used to assess annual aircraft noise is NoiseMap/Baseops (U.S. Air Force 2009). The NoiseMap/Baseops program requires operations data including type of aircraft, altitude, flight tracks, and number of operations. Aviation noise is assessed using A-weighted Yearly Day-Night average Levels (A-YDNL). For land use planning, the A-YDNL is averaged over a year and therefore includes days of heavy, light and no flight schedules.

(2) The noise simulation program used to assess individual aircraft noise is SelCalc (U.S. Air Force 2005). The SelCalc program is a subset of the NoiseMap/Baseops program.

b. Demolition and Large Caliber Weapons. The noise simulation program used to assess demolition and large caliber weapons (20mm and greater) is the Blast Noise Impact Assessment (BNOISE2) program (U.S. Army 2009). The BNOISE2 model requires operations data concerning the types of weapons fired from each range or firing point (including demolitions), the number and types of ammunition fired from each weapon, the location of targets for each range or firing point and the amount of propellant used to reach the target. Existing range utilization records along with reasonable assumptions were used as BNOISE2 inputs. The assessment period used to create the Fort Carson C-weighted Day-Night average sound Level (CDNL) contours was 250 days. The CDNL noise metric is used for demolition and large caliber weapons to capture the low-frequency energy produced from such activities. The CDNL is an annual average noise dose from range operations and is intended for long-term land use planning.

c. Small Caliber Weapons. The noise simulation program used to assess small caliber weapons (.50 caliber and below) noise is the Small Arms Range Noise Assessment Model (SARNAM) (U.S. Army 2003). The SARNAM program requires operations data concerning types of weapons and range layout. The SARNAM calculation algorithms assume weather conditions or wind direction that favors sound propagation. Small caliber weapon noise is addressed utilizing peak levels and therefore has no assessment period.

6. REGULATORY REQUIREMENTS.

a. Army Regulation (AR) 200-1 partitions noise into zones, each representing an area of increasing decibel level. The AR lists housing, schools, and medical facilities as examples of noise-sensitive land uses (U.S. Army 2007). The program defines four Noise Zones:

- Noise-sensitive land uses are not recommended in *Zone III*.
- Although local conditions such as availability of developable land or cost may require noise-sensitive land uses in *Zone II*, this type of land use is strongly discouraged on the installation and in surrounding communities. All viable alternatives should be considered to limit development in *Zone II* to non-sensitive activities such as industry, manufacturing, transportation and agriculture.
- Noise-sensitive land uses are generally acceptable within the *Zone I*. However, though an area may only receive *Zone I* levels, military operations may be loud enough to be heard - or even judged loud on occasion. *Zone I* is not one of the contours shown on the map; rather it is the entire area outside of the Zone II contour.
- The *Land Use Planning Zone (LUPZ)* is a subdivision of Zone I. The *LUPZ* is 5 dB lower than the Zone II. Within this area, noise-sensitive land uses are generally acceptable. However, communities and individuals often have different views regarding what level of noise is acceptable or desirable. To address this, some local governments have implemented land use planning measures out beyond the Zone II limits. Additionally, implementing planning controls within the *LUPZ* can develop a buffer to avert the possibility of future noise conflicts.

b. The following table summarizes each zone and its appropriate weighting by type of operation;

TABLE 1. NOISE ZONE DECIBEL LEVELS. (AR 200-1)

Noise Zone	**Aviation (ADNL)**	**Small Arms (PK15(met))**	**Large Arms, Demolitions, Etc. (CDNL)**
Land Use Planning Zone (LUPZ)	60-65	N/A	57 – 62
Zone I	<65	<87	<62
Zone II	65-75	87 – 104	62 – 70
Zone III	>75	>104	>70

7. AIRFIELD AVIATION ACTIVITY.

a. EXISTING ACTIVITY.

(1) From Oct 10 to Sep 11, BAAF airfield reported 103,199 operations (Table 2). The tower count includes aircraft assigned to Fort Carson as well as visiting units. The number and type of aircraft operations varies from day to day and month to month. The average daily movement on the airfield was 283. The number of movements is based upon aircraft that utilized the airfield, not aircraft just passing through the BAAF airspace or aircraft under flight following conditions.

TABLE 2. BAAF TOWER COUNT.

Month	FY11 Tower Count
Oct 2010	5,876
Nov 2010	4,507
Dec 2010	6,580
Jan 2011	9,101
Feb 2011	10,147
Mar 2011	9,941
Apr 2011	11,784
May 2011	11,878
Jun 2011	9,623
Jul 2011	8,929
Aug 2011	10,794
Sep 2011	4,039
TOTAL	**103,199**

(2) BAAF is utilized primarily by rotary aircraft. The number of daily operations (take offs or landings) varies throughout the year according to Fort Carson or visiting unit training requirements. During peak training periods, the number of operations at the airfield can be as high as 300 operations daily.

(3) The traffic control tower logs do not separate activity by type or model of aircraft, nor do the logs indicate the time of day or flight route of the aircraft. For the purpose of noise modeling, 80% of military flights were estimated to occur during the daytime (0700-2200). Airfield personnel estimated that 50% of activity was AH-64, 35% UH-60, 5% CH47, 5% UH-1, and 5% other aircraft. Other aircraft include OH-58; Bell 407; civilian medical rotary aircraft; and occasional U.S. Air Forces Academy pilot training with small fixed wing aircraft.

(4) Table 3 lists the existing average yearly activity by aircraft type. Table 4 lists the existing average daily aviation activity. The numbers were rounded to prevent fractional numbers of flights.

TABLE 3. BASELINE ANNUAL AVIATION ACTIVITY.

	Baseline Annual Operations (FY11)
AH-64	51,600
UH-60	36,120
CH-47	5,160
UH-1	5,160
Other aircraft	5,160
TOTAL	**103,199**

Note: An operation is defined as either an arrival or a departure or a closed traffic pattern.

TABLE 4. BASELINE AVERAGE DAILY AVIATION ACTIVITY.

	Daytime Operations (0700 – 2200 hours)	**Nighttime Operations (2200 – 0700 hours)**
AH-64	113	28
UH-60	79	20
CH-47	11	3
UH-1	11	3
Other aircraft	11	3
TOTAL	**226**	**57**

Note: An operation is defined as either an arrival or a departure or a closed traffic pattern.

b. PROJECTED ACTIVITY.

(1) The CAB to be stationed at Fort Carson would consist of approximately 113 helicopters (48 AH-64D, 12 CH-47, 38 UH-60, 15 UH-60/HH-60). To maintain proficiency, a specific number of flight hours are required to be logged by applicable Soldiers and units. Flight hours are based upon a model that includes all aviation

training required to meet individual aviator qualification training, aircrew training, and collective training at the flying company and battalion level. The required flight hours for a Heavy CAB are noted in Table 5. Actual average flying hours by CAB Soldiers in and around Fort Carson and PCMS are expected to be lower as some CAB units would typically be deployed.

TABLE 5. HEAVY CAB CRITICAL FLYING HOURS, FULL SPECTRUM OPERATIONS TRAINING STRATEGY. (U.S.Army 2011a)

Combat Aviation Brigade Critical Flying Hours, Full Spectrum Operations Training Strategy				
Unit (aircraft)	**Training Year**			**Average**
	Year 1	**Year 2**	**Year 3**	
AHB (UH-60)	4,422	6,017	5,726	**5,388**
ARB (AH-64D)	8,718	11,568	10,972	**10,419**
GSAB-CAC (UH-60)	1,343	1,831	1,739	**1,638**
GSAB-Hvy Hel Co (CH-47)	1,940	2,651	2,518	**2,370**
GSAB-MEDEVAC (15 UH-60)	2,524	3,551	3,352	**3,142**
Total	**18,947**	**25,618**	**24,307**	**22,957**

(2) The projected annual number of flights is based on three flight hours per aircraft type for the average flight hours, Table 5. A projected schedule of three flight hours per mission is consistent with the activity at other installations that have a CAB. The projected average daily activity is 41 flights, Table 6. The addition of the CAB would increase the average number of daily flights from 283 to 324. It was assumed 80% of flights occurred between 0700 – 2200 hours.

TABLE 6. PROJECTED ANNUAL CAB AVIATION ACTIVITY.

Aircraft	**Average Flight Hours**	**Projected Annual Number of Flights***
UH-60	7,026	2,342
AH-64D	10,419	3,473
CH-47	2,370	790
UH-60/HH-60	3,142	1,047
Total	**22,957**	**7,652**

NOTE: One flight consists of a departure and an arrival.

TABLE 7. PROJECTED AVERAGE DAILY CAB AVIATION ACTIVITY.

	Daytime Operations (0700 – 2200 hours)	**Nighttime Operations (2200 – 0700 hours)**
AH-64	10	2
UH-60	15	4
CH-47	4	1
UH-60/HH-60	4	1
TOTAL	**33**	**8**

Note: An operation is defined as either an arrival or a departure or a closed traffic pattern.

8. AIRFIELD NOISE MODELING RESULTS.

a. Figure 1 contains the noise contours for the existing operations at BAAF (based on Table 3). The Noise Zones remain relatively localized to the airfield and do not extend beyond Fort Carson's boundary. On-post, the operations generate a LUPZ (60-65 dB A-YDNL) which extends along 04/22 approach and departure track into an industrial portion of the WRC. The Zone II (65 – 75 dB A-YDNL) remains localized to the airfield and small arms range area.

Appendix D contains an explanation of the changes between the PEIS and FEIS airfield contours and the contours in this consultation.

b. Figure 2 contains the noise contours for the existing operations plus the projected CAB operations at BAAF (based on Tables 3 & 6). The additional CAB activity does not significantly change the airfield noise contours. The Noise Zones still remain within Fort Carson's boundary. On-post, the operations generate a slightly larger LUPZ (60-65 dB A-YDNL) along the 04/22 approach and departure track into the WRC. Additionally, a large portion of the LUPZ extends into the small arms range area.

c. Based on AR 200-1, the existing and projected annual average noise levels attributable to the BAAF activity is compatible with surrounding land use, both on and off-post. Though the Noise Zones indicate that annual average noise levels are compatible with the surrounding environment, there is potential for individual overflights to cause annoyance and possibly generate noise complaints.

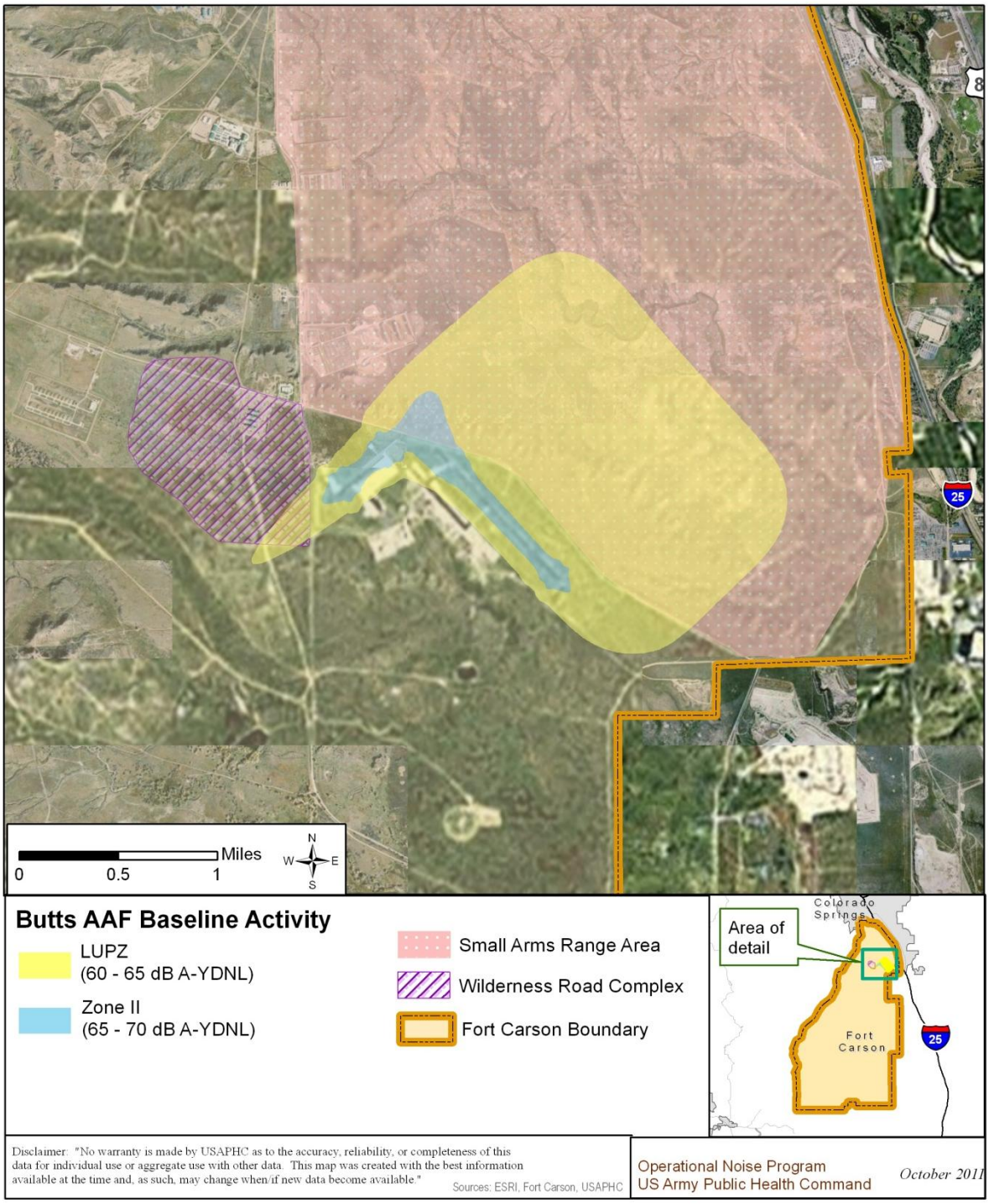


FIGURE 1. BAAF BASELINE ANNUAL AVERAGE NOISE CONTOURS.

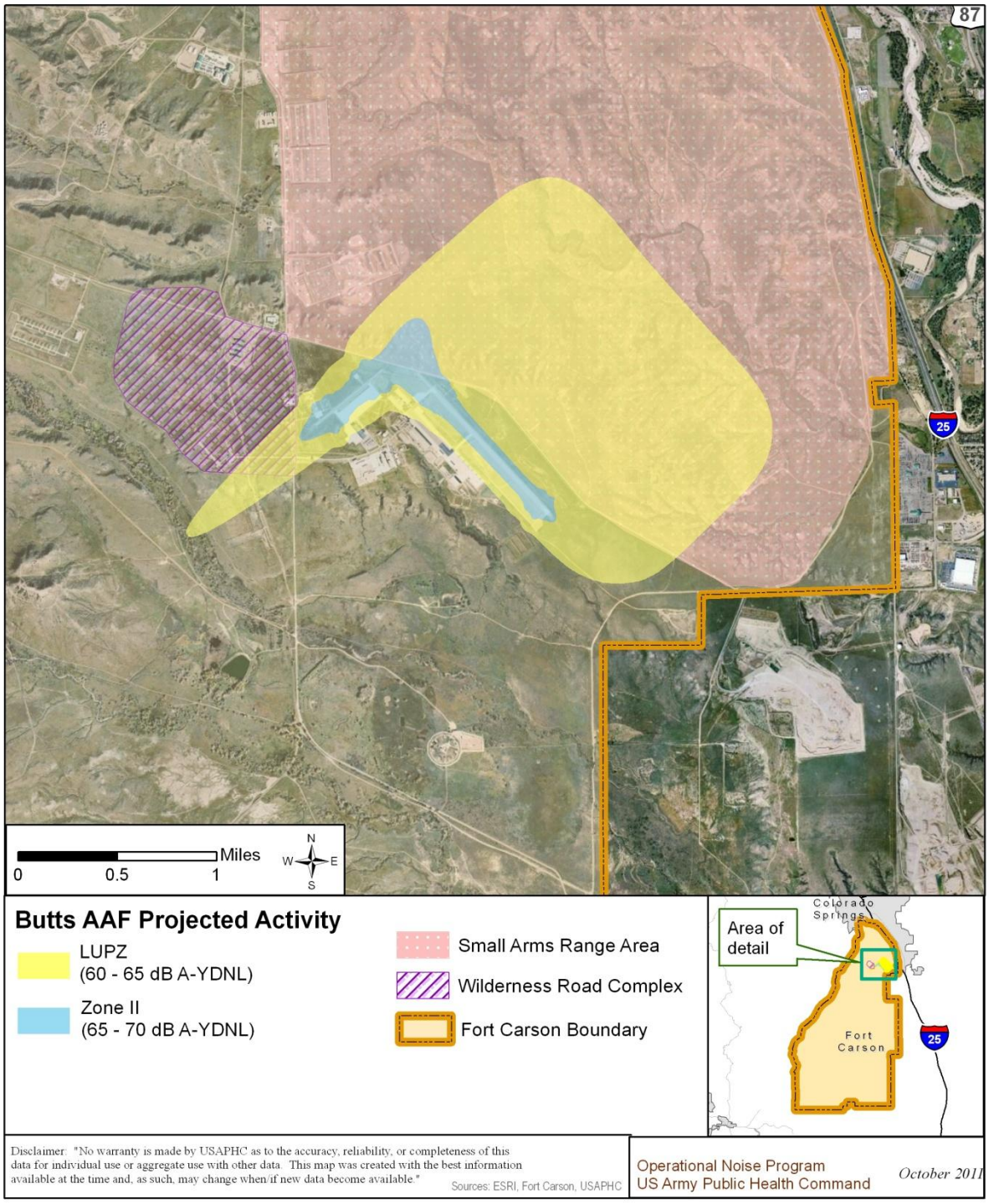


FIGURE 2. BAAF PROJECTED ANNUAL AVERAGE NOISE CONTOURS.

9. OVERFLIGHT NOISE ASSESSMENT.

a. Although the existing and projected annual average noise levels attributable to the BAAF activity is compatible with surrounding land use, both on and off-post, the helicopter overflights would generate levels that some individuals might find disruptive and/or annoying.

b. ANNOYANCE POTENTIAL.

(1) Scandinavian Studies (Rylander 1974 and Rylander 1988) have found that a good predictor of annoyance at airfields with 50 to 200 operations per day is the maximum level of the 3 loudest events. The maximum noise levels for the primary aircraft at BAAF are listed in Table 8. These maximum levels are compared with the levels listed in Table 9 to determine the percent of the population that would consider itself highly annoyed. Table 10 indicates the percent of the population that would consider itself highly annoyed correlated with maximum noise levels for specific aircraft overflights.

TABLE 8. MAXIMUM NOISE LEVELS OF AIRCRAFT.

Slant Distance (feet)	**Maximum Level, dBA**				
	AH-64	CH-47	OH-58	UH-60	UH-1
200	92	92	87	88	91
500	83	84	79	80	83
1,000	77	78	72	73	76
1,500	73	74	68	69	73
2,000	70	71	65	66	70
2,500	67	68	62	63	68

TABLE 9. PERCENTAGE OF POPULATION HIGHLY ANNOYED FROM AIRCRAFT NOISE. (Rylander 1974)

Maximum, dBA	Highly Annoyed
90	35%
85	28%
80	20%
75	13%
70	5%

TABLE 10. OVER FLIGHT ANNOYANCE POTENTIAL[1].

Source	Ground Track Distance[2]	dBA Maximum[3]	Population Highly Annoyed[4]
AH-64 – 1000' AGL	0'	77	16%
	1320' (1/4 mile)	71	7%
	1760' (1/3 mile)	69	4%
	2640' (1/2 mile)	65	<1%
AH-64 – 2000' AGL	0'	70	5%
	1320' (1/4 mile)	68	2%
CH-47 – 1000' AGL	0'	77	16%
	1320' (1/4 mile)	72	8%
	1760' (1/3 mile)	70	5%
	2640' (1/2 mile)	66	<1%
CH-47 – 2000' AGL	0'	64	<1%
	1320' (1/4 mile)	62	<1%
OH-58 – 1000' AGL	0'	72	8%
	1320' (1/4 mile)	67	1%
	1760' (1/3 mile)	64	<1%
UH-60 – 1000' AGL	0'	73	10%
	1320' (1/4 mile)	68	2%
	1760' (1/3 mile)	65	<1%
UH-1– 1000' AGL	0'	76	14%
	1320' (1/4 mile)	71	7%

[1] Percent annoyance shown is based upon 50 to 200 overflights per day. (Rylander 1974)
[2] Distance between receiver and the point on Earth at which the aircraft is directly overhead.
[3] Obtained via SelCalc Program (U.S. Air Force 2005)
[4] Calculated percentage based upon regression using the known values in Table 9.

(2) Fort Carson Regulation 95-1 prescribes specific noise abatement requirements for aviation personnel, including minimum off-post altitudes, minimum slant range distances from sensitive areas and restricted areas. Helicopters routinely fly from Fort Carson to PCMS, though not all aircraft will fly the same pattern or route. However, all aircraft will comply with the local flying rules per Fort Carson 95-1 and AR 95-1, as well as all FAA guidelines under 14 CFR 91.155 for visual flight rules and AC 91-36D VFR operations for noise-sensitive areas. All aircraft will avoid over-flight of heavily inhabited areas and endangered species designated areas unless directed to do so in the performance of their mission. For Fort Carson and Colorado Springs, this means all rotary-wing aircraft will maintain a minimum of 1,000 feet (304.8 m) Above Ground Level (AGL), and 0.25 mile (0.4 km) standoff outside Fort Carson while flying

through the mountain passes until clear of inhabited areas (weather permitting), unless they are operating in a designated low-level or Nap-of-the-Earth (NOE) training route.[1]

(3) Annoyance Potential Summary. Based on Table 10 and the noise abatement procedures, generally less than 2% of the population would consider itself highly

This original page 12 replaced with errata (on next page) per 09 Mar 2012 memo.

c. Helicopters routinely fly from Fort Carson to PCMS. The area between Fort Carson and PCMS does not have established air corridors. The only restriction is that aircraft must maintain a minimum altitude of 700 feet AGL unless they are operating in a designated low-level or NOE training route. The flights between Fort Carson and PCMS were addressed in a 2008 Noise Consultation (U.S. Army 2008). The key points are summarized below:

- There is one low-level flight training route, Route Hawk, between Fort Carson and PCMS that is used for NOE training. While utilizing Route Hawk, aircraft avoid all houses, buildings, people, livestock, and moving vehicles by a minimum slant range of ½ nautical miles (0.43 statute miles). Fort Carson may lower the typical altitude flown in Route Hawk from 100 feet AGL to 50 feet AGL.

- While in Route Hawk, maintaining a ½ nautical mile slant distance from buildings, people, livestock, and moving vehicles, the annoyance risk should remain low even if the allowed minimum flight altitude is lowered from 100 to 50 feet AGL within the route.

- Helicopters flying from Fort Carson to PCMS, outside of Route Hawk, should maintain a slant distance 1,760 feet (0.29 nautical miles/0.3 statute miles) from buildings, people, livestock, and moving vehicles to reduce the potential for annoyance.

d. The helicopter flights occurring off-post (transitioning to PCMS or other training areas, utilizing Route Hawk) would not generate a Zone II levels. The altitudes vary depending upon the mission and the location of the overflight in relation to the surrounding environment (i.e., buildings, livestock, populated areas).

(1) The following explains how DNL is calculated. The A-weighted Sound Exposure Level (ASEL) of an AH-64 at 1,000 feet AGL is 85.3 decibels (dBA).

[1] Final CAB PEIS_2010

through the mountain passes until clear of inhabited areas (weather permitting), unless they are operating in a designated low-level or Nap-of-the-Earth (NOE) training route.[1]

(3) Annoyance Potential Summary. Based on Table 10 and the noise abatement procedures, generally less than 2% of the population would consider itself highly annoyed from the OH-58 and UH-60 helicopter overflights above 1,000 feet AGL and approximately 8% of the population would consider itself highly annoyed from the AH-64, CH-47, and UH-1 overflights at 1,000 feet AGL.

c. Helicopters routinely fly from Fort Carson to PCMS. The area between Fort Carson and PCMS does not have established air corridors. Aircraft must maintain a minimum altitude of 500 feet AGL off-post unless they are flying per an exception listed in Fort Carson Regulation 95-1. Exceptions include, among others, maintaining visual flight rules due to weather conditions, meeting specific mission requirements such as search and rescue, and operating in a designated low-level training route. The flights between Fort Carson and PCMS were addressed in a 2008 Noise Consultation (U.S. Army 2008). The key points are summarized below:

- There is one low-level flight training route, Route Hawk, between Fort Carson and PCMS. While utilizing Route Hawk, aircraft avoid all houses, buildings, people, livestock, and moving vehicles by a minimum slant range of ½ nautical miles (0.43 statute miles).

- While in Route Hawk, maintaining a ½ nautical mile slant distance from buildings, people, livestock, and moving vehicles, the annoyance risk should remain low.

- Helicopters flying from Fort Carson to PCMS, outside of Route Hawk, should maintain a slant distance 1,760 feet (0.29 nautical miles/0.3 statute miles) from buildings, people, livestock, and moving vehicles to reduce the potential for annoyance.

d. The helicopter flights occurring off-post (transitioning to PCMS or other training areas, utilizing Route Hawk) would not generate a Zone II levels. The altitudes vary depending upon the mission and the location of the overflight in relation to the surrounding environment (i.e., buildings, livestock, and populated areas).

[1] Final CAB PEIS_2010

The SEL is sound normalized to one second. If there is only one flight per day, the A-weighted average sound Level (ADNL) can be calculated by subtracting a constant representing 10 times the logarithm of the 86,400 seconds in a 24 hour day, which is 49.4 dB. So, for one AH-64 flyover at 1,000 feet (85.3 dB ASEL), the ADNL would be 35.9 dB ADNL. The ADNL increases 3 dB for every doubling of operations, so the ADNL for 2 flights would be 38.9 dB ADNL, 4 flights per day would equal 41.9 dB ADNL, and 8 flights per day would equal 44.9 dB ADNL. By continuing these calculations, it would take 256 AH-64 flights occurring over *one location* within a 24-hour period to achieve a 59.9 dB ADNL.

(2) Table 11 lists the DNL for various attitudes for the most common helicopters at Fort Carson.

TABLE 11. PROJECTED HELICOPTER ADNL.

	ADNL							
NUMBER OF SORTIES	**AH-64 100' AGL**	**AH-64 500' AGL**	**AH-64 1000' AGL**	**CH-47 500' AGL**	**CH-47 1000' AGL**	**UH-60 100' AGL**	**UH-60 500' AGL**	**UH-60 1000' AGL**
1	51.1	40.7	35.9	43	38.4	48.3	38.4	33.1
2	54.1	43.7	38.9	46	41.4	51.3	41.4	36.1
4	57.1	46.7	41.9	49	44.4	54.3	44.4	39.1
8	60.1	49.7	44.9	52	47.4	57.3	47.4	42.1
16	63.1	52.7	47.9	55	50.4	60.3	50.4	45.1
32	66.1	55.7	50.9	58	53.4	63.3	53.4	48.1
64	69.1	58.7	53.9	61	50.4	66.3	56.4	51.1

(3) Based upon the existing and projected operational parameters, the number of aircraft and the large amount of airspace available, it is unlikely that noise levels would ever reach 60 dB ADNL for any area off-post subject to overflights (other than directly under the flight path to the airfield).

e. The annoyance potential information provided is primarily for off-post information. The annoyance potential may not be applicable to the WRC and other on-post noise-sensitive areas as the studies were based on the civilian community response.

10. WEAPON NOISE ASSESSMENT. Live-fire training of CAB units is primarily small arms weapons (rifles with 5.56mm munitions; 9mm pistols; 7.62mm and .50 caliber machine guns). The AH-64 Apache longbow helicopter, fires the 30mm gun, 2.75-inch rockets and Hellfire guided missiles as part of live-fire training activities.

a. Small Caliber Ranges.

(1) All Soldiers qualify with their individual weapon (rifle or pistol) at least twice annually. The ranges required include a 25-Meter Zero, Modified Record Fire, Combat Pistol Qualification Course, and the Multi-purpose Machine Gun Range. Training would take place on existing ranges at either Fort Carson or PCMS.

(2) Per AR 200-1 (U.S. Army 2007), small arms operations were analyzed using PK15(met). The analysis depicts the predicted peak levels for individual rounds (metric term is PK15(met)). Since the contours are based on peak levels rather than a cumulative or average level, the size of the contours will not change if the number of rounds fired increases or decreases. Appendix E contains the operations data used to model the small caliber noise contours.

(3) Fort Carson. The small caliber weapons noise contours at the Fort Carson small arms impact area are shown in Figure 3. The Zone II [PK15(met) 87 dB] extends beyond the eastern boundary less than 700 meters, entering the city of Fountain. The Zone III [PK15(met) 104 dB] extends slightly beyond the eastern boundary into the undeveloped are between the Fort Carson boundary and Interstate 25. On-post the Zone II extends into a small area of the WRC. Based on the current WRC design, there is one noise-sensitive structure within the Zone II area (an Operational Readiness Training Complex barrack).

(4) PCMS. Due to the distance of the ranges from the installation boundary and any noise-sensitive land uses, only Ranges 1, 3, and 7 were addressed. The noise contours for these small arms operations are shown in Figure 4. The Zone II [PK15(met) 87 dB] extends beyond the western boundary less than 650 meters. The Zone III [PK15(met) 104 dB] does not extend beyond the installation boundary.

(5) The addition of the CAB activity does not change the small caliber noise contours.

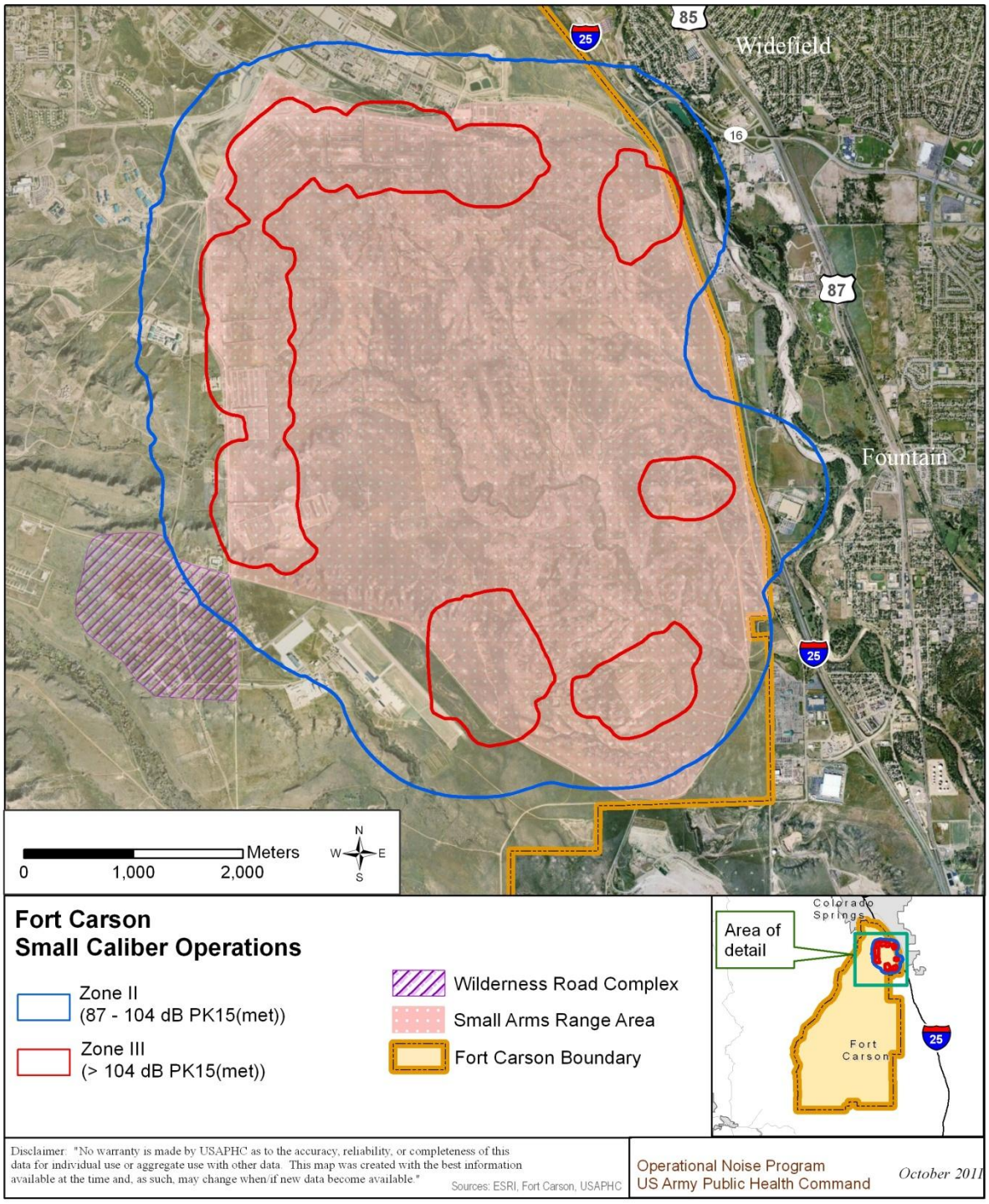


FIGURE 3. FORT CARSON SMALL CALIBER NOISE CONTOURS.

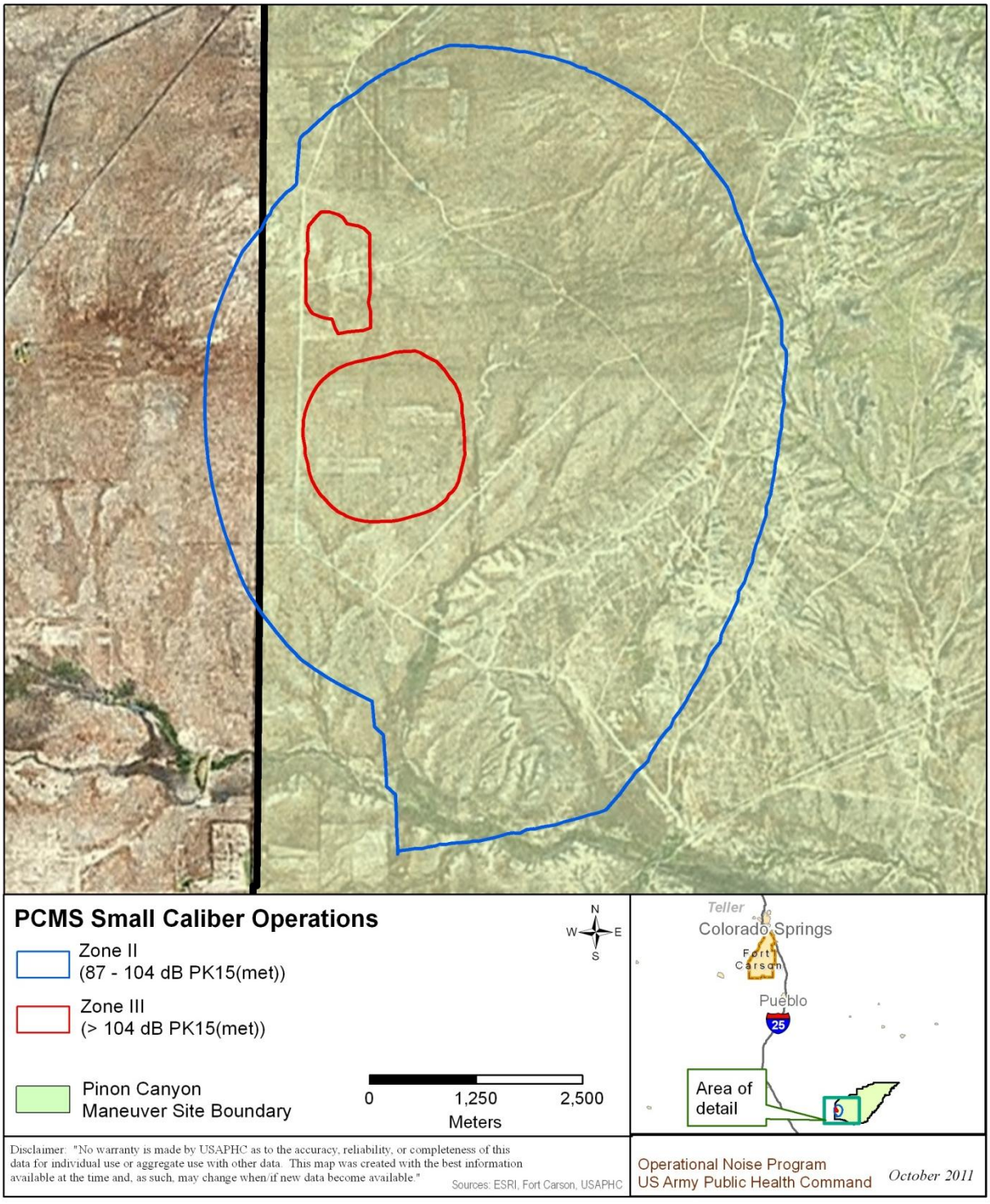


FIGURE 4. PCMS SMALL CALIBER NOISE CONTOURS.

b. Large Caliber Weapon Ranges.

(1) The CAB training would include aerial gunnery, integrated aviation, and ground maneuver qualification ranges. Training would take place on existing ranges at Fort Carson; such as the Multi-Purpose Range Complex, Aerial Gunnery Range, Combined Arms Collective Training Facility and/or Urban Operations Training Range. The projected weapon activity includes 2.75-inch rockets, Hellfire guided missiles, and 30mm Gun.

(2) Table 12 lists the standard ammunition requirements for an AH-64 attack battalion as shown in DA PAM 350-38, Standards in Training Commission (STRAC) (U.S. Army 2010). As a Heavy CAB consists of two attack battalions, the values in the table were doubled when analyzed. Appendix E contains the operations data used to model the demolition and large caliber noise contours.

TABLE 12. ATTACK BATTALION STRAC REQUIREMENTS.

Weapon/Ammunition	Annual Number of Rounds per Aviation Battalion
2.75-inch Rocket, Inert	2,736
Hellfire, Inert	144
30mm Gun, Inert	24,720

NOTE: Inert is defined as any round that does not explode upon impact (i.e. smoke, TP, illum).

(3) Figure 5 depicts the demolition and large caliber weapons noise contours for Fort Carson. The LUPZ (57 CDNL) extends beyond the eastern boundary beyond Interstate 25, encompassing El Rancho, Midway Ranches, and the best part of the city of Fountain. The LUPZ extends into an undeveloped area to the south and beyond the western boundary encompassing Turkey Canyon Ranch. Zone II (62 CDNL) extends into El Rancho and Midway Ranches; and slightly into the Turkey Canyon Ranch. Zone III (70 CDNL) extends slightly into undeveloped areas of Fountain, El Rancho, and Turkey Canyon Creek. On-post Zone II encompasses most of the WRC. Limiting or relocating the artillery firing occurring in Training 07 would lessen the large caliber weapon noise levels in the WRC.

(4) The existing operations at Fort Carson are in excess of 532,000 events annually. The 55,200 rounds attributed to the projected CAB activity were acoustically insignificant; therefore the addition of the CAB activity does not change the demolition and large caliber noise contours, Figure 6.

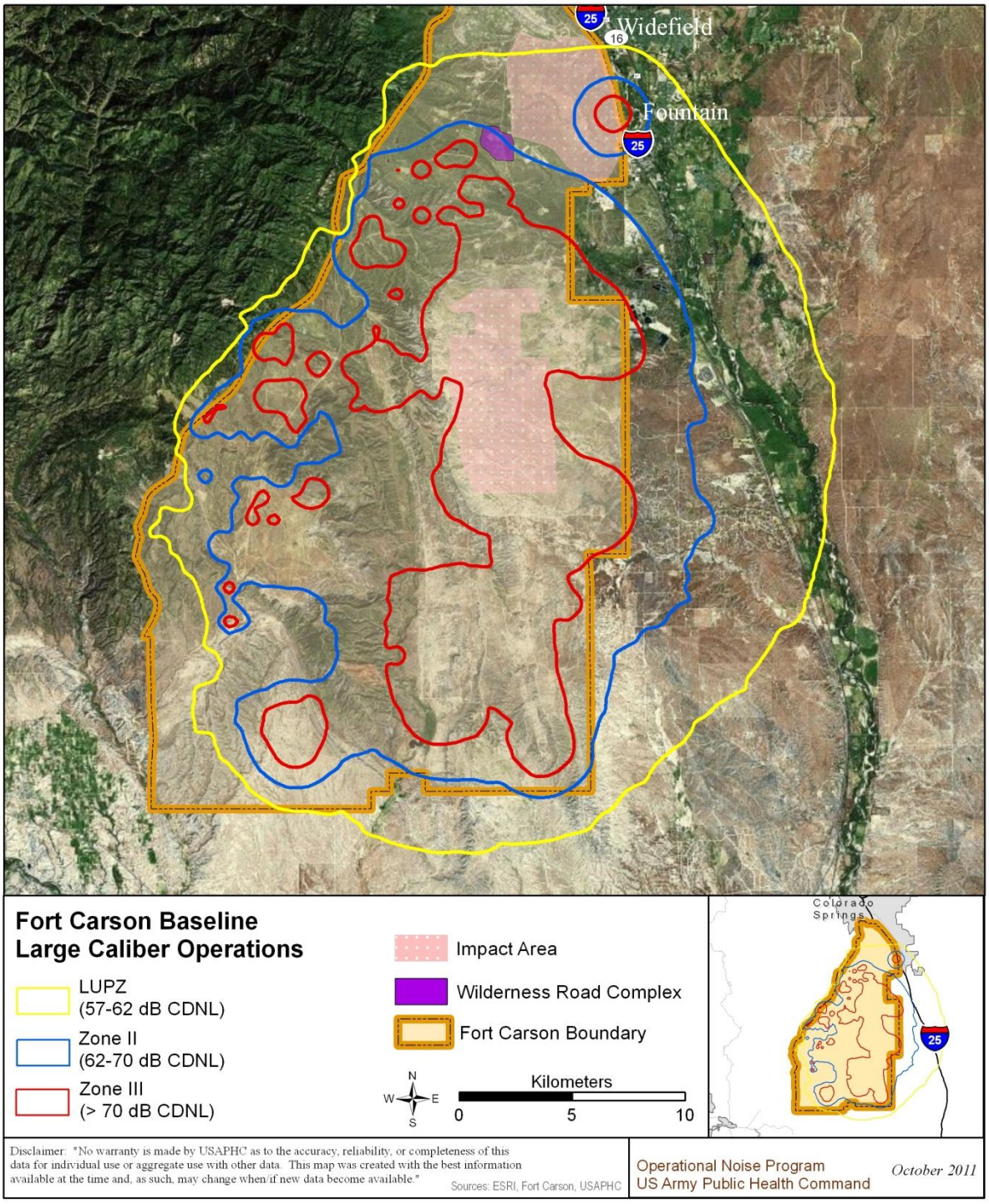


FIGURE 5. FORT CARSON BASELINE DEMOLITION AND LARGE CALIBER NOISE CONTOURS.

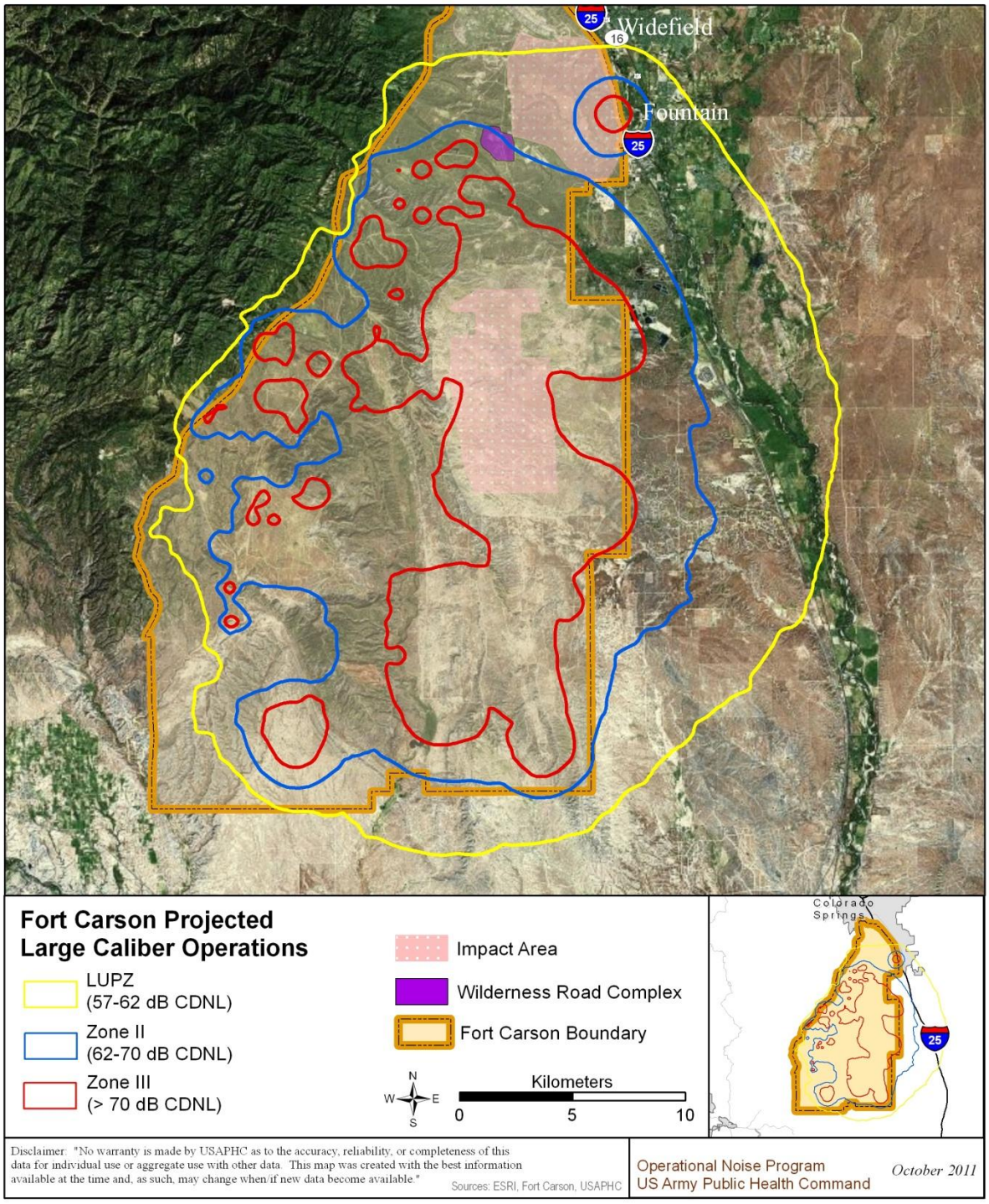


FIGURE 6. FORT CARSON PROJECTED DEMOLITION AND LARGE CALIBER NOISE CONTOURS.

11. CONCLUSIONS AND RECOMMENDATIONS.

a. Aviation Activity.

(1) The existing and projected annual average noise levels attributable to the BAAF activity is compatible with surrounding land use, both on and off-post. Though the Noise Zones indicate that annual average noise levels are compatible with the surrounding environment, there is potential for individual overflights to cause annoyance and possibly generate noise complaints.

(2) Measures are in place to mitigate the effects of aircraft noise at Fort Carson. However, there is always the possibility that an individual overflight could lead to a complaint. Fort Carson should continue implementing fly-neighborly programs that adjust aircraft training times and routes to lower the impact on the community to the greatest extent possible given mission requirements.

b. Weapon Activity.

(1) The existing operations at Fort Carson are in excess of 532,000 events annually. The 55,200 rounds attributed to the projected CAB activity were acoustically insignificant. The addition of the CAB activity does not change the demolition and large caliber noise contours.

(2) As small caliber weapons are evaluated on peak levels, the additional activity of the CAB does not change the noise contours.

c. Wilderness Road Complex.

(1) The Zone II from demolition and large caliber weapon activity encompasses most of the WRC. Limiting or relocating the artillery firing occurring in Training 07 would lessen the large caliber weapon DNL in the WRC.

(2) Though the WRC is located in an area where BAAF noise levels are compatible with residential land use, there is potential for an individual overflight to cause annoyance.

(3) In the WRC, incorporating Noise Level Reduction methods in building construction would not be effective for large caliber noise mitigation, but may be effective in mitigating aviation activity noise.

(4) When/if the preliminary plan for a child development center and/or chapel north of Wilderness Road become further defined, Fort Carson should analyze the projects in accordance with National Environmental Policy Act.

Kristy Broska

KRISTY BROSKA
Environmental Protection Specialist
Operational Noise

APPROVED:

Catherine Stewart

CATHERINE STEWART
Program Manager
Operational Noise

APPENDIX A

REFERENCES

1. Fort Carson, 2009. Final Environmental Impact Statement for Implementation of Fort Carson Grow the Army Stationing Decisions, February 2009.

2. Rylander, et. al., 1974, "Re-Analysis of Aircraft Noise Annoyance Data Against the dBA Peak Concept", Journal of Sound and Vibration, Volume 36, pages 399 - 406.

3. Rylander and Bjorkman, 1988, "Maximum Noise Levels as Indicators of Biological Effects", Journal of Sound and Vibration, Volume 127, pages 555 - 563.

4. U.S. Air Force, 2005, SELcalc2 Noise Model, Wright-Patterson Air Force Base, OH.

5. U.S. Air Force, 2009, NOISEMAP/BASEOPS, Wright-Patterson Air Force Base, OH.

6. U.S. Army, 2003, U.S. Army Construction Engineering Research Laboratories, SARNAM Computer Model, Version 2.6.2003-06-06.

7. U.S. Army, 2007, Army Regulation 200-1, Environmental Protection and Enhancement, Chapter 14 Operational Noise.

8. U.S. Army, 2008, U.S. Army Center for Health Promotion and Preventive Medicine, Addendum to Operational Noise Consultation 52-ON-046N-06, Operational Noise Contours for Fort Carson, CO, April 2006. Dated 16 October 2008.

9. U.S. Army, 2009, U.S. Army Construction Engineering Research Laboratories, BNOISE2 Computer Model, Version 1.3.2009-11-30.

10. U.S. Army, 2010, Department of Army Pamphlet 350-38, Standards in Training Commission, FY11.

11. U.S. Army, 2011a. Final Programmatic Environmental Impact Statement (PEIS) for the Realignment, Growth and Stationing of Army Aviation Assets, February 2011.

12. U.S. Army, 2011b. Record of Decision for the Realignment, Growth, and Stationing of Army Aviation Assets, March 25, 2011.

APPENDIX B

GLOSSARY OF TERMS, ACRONYMS & ABBREVIATIONS

B-1. GLOSSARY OF TERMS.

Above Ground Level – distance of the aircraft above the ground.

A-weighted Sound Level – the ear does not respond equally to sounds of all frequencies, but is less efficient at low and high frequencies than it is at medium or speech range frequencies. Thus, to obtain a single number representing the sound pressure level of a noise containing a wide range of frequencies in a manner approximating the response of the ear, it is necessary to reduce, or weight, the effects of the low and high frequencies with respect to the medium frequencies. Thus, the low and high frequencies are de-emphasized with the A-weighting. The A-scale sound level is a quantity, in decibels, read from a standard sound-level meter with A-weighting circuitry. The A-scale weighting discriminates against the lower frequencies according to a relationship approximating the auditory sensitivity of the human ear. The A-scale sound level measures approximately the relative “noisiness” or “annoyance” of many common sounds.

Average Sound Level – the mean-squared sound exposure level of all events occurring in a stated time interval, plus ten times the common logarithm of the quotient formed by the number of events in the time interval, divided by the duration of the time interval in seconds.

C-weighted Sound Level – a quantity, in decibels, read from a standard sound level meter with C-weighting circuitry. The C-scale incorporates slight de-emphasis of the low and high portion of the audible frequency spectrum.

Day-Night Average Sound Level (DNL) – the 24-hour average frequency-weighted sound level, in decibels, from midnight to midnight, obtained after addition of 10 decibels to sound levels in the night from midnight up to 7 a.m. and from 10 p.m. to midnight (0000 up to 0700 and 2200 up to 2400 hours).

Decibels (dB) – a logarithmic sound pressure unit of measure.

Ground Track Distance – the distance between the receiver and the point on the Earth at which the aircraft is directly overhead.

Noise – any sound without value.

PK15(met) – the maximum value of the instantaneous sound pressure for each unique sound source, and applying the 15 percentile rule accounting for meteorological variation.

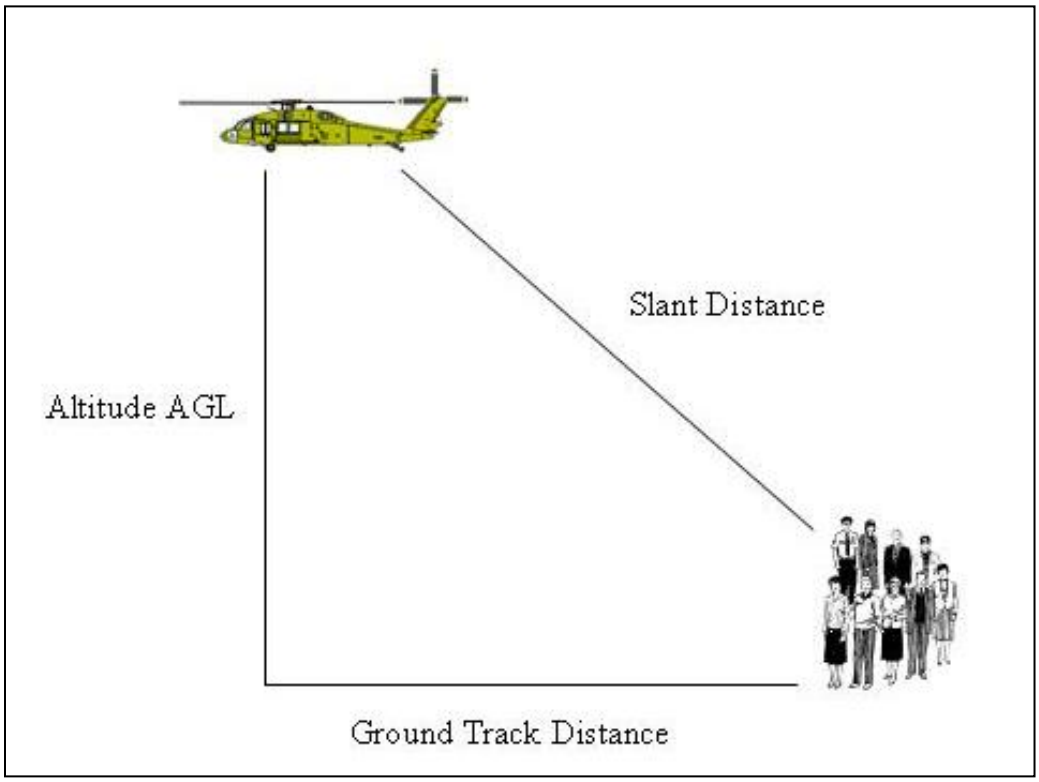
Slant Distance – the line of sight distance between the receiver and the aircraft. The slant distance is the hypotenuse of the triangle represented by the altitude AGL of the aircraft and the distance between the receiver and the aircraft's ground track distance.

B-2. GLOSSARY OF ACRONYMS AND ABBREVIATIONS.

A-YDNL	A-weight Yearly Day-Night average Level
AGL	Above Ground Level
ASEL	A-weighted Sound Exposure Level
BAAF	Butts Army Airfield
BNOISE2	Blast Noise Impact Assessment
CAB	Combat Aviation Brigade
CDNL	C-weighted Day Night average Level
dB	Decibels
dBA	Decibels, A-weighted
LUPZ	Land Use Planning Zone
MAX	Maximum sound level
NEPA	National Environmental Policy Act
PK15(met)	Unweighted Peak, 15% Metric
SARNAM	Small Arms Range Noise Assessment Model
WRC	Wilderness Road Complex

ANNEX B

GRAPHICAL DESCRIPTION OF AIRCRAFT TERMINOLOGY



APPENDIX C

U.S. ARMY NOISE ZONE DESCRIPTIONS

C-1. REFERENCE. The U.S. Army, 2007, Army Regulation 200-1, Environmental Protection and Enhancement, Chapter 14 Operational Noise.

C-2. For a detailed explanation of Noise Zone Descriptions and Land Use Guidelines see Army Regulation 200-1, Chapter 14 (U.S. Army 2007).

C-3. Day Night Level (DNL). DNL is used to describe the cumulative or total noise exposure during a prescribed time period (aviation 365 days; demolition and large caliber weapons 250 days for active Army). DNL is the energy average noise level calculated with a 10 decibel penalty for operations occurring between 2200 and 0700. The 10-decibel penalty considers that people are more sensitive to noise during these hours. Additionally, sounds may seem louder since background noise levels are generally lower at night. *Note: as DNL is averaged over a prescribed time period the contours include days of no, light, and heavy training schedules.*

C-4. PK15(met) Noise Contour Description. PK15(met) is the peak sound level, factoring in the statistical variations caused by weather, that is likely to be exceeded only 15 percent of the time (i.e., 85 percent certainty that sound will be within this range). This “85 percent solution” gives the installation and the community a means to consider the areas impacted by training noise without putting stipulations on land that would only receive high sound levels under infrequent weather conditions that greatly favor sound propagation. PK15(met) does not take the duration or the number of events into consideration, so the size of the contours will remain the same regardless of the number of events.

C-5. The AR lists housing, schools, and medical facilities as examples of noise-sensitive land uses (U.S. Army 2007). The program defines four Noise Zones:

- Noise-sensitive land uses are not recommended in *Zone III*.
- Although local conditions such as availability of developable land or cost may require noise-sensitive land uses in *Zone II*, this type of land use is strongly discouraged on the installation and in surrounding communities. All viable alternatives should be considered to limit development in *Zone II* to non-sensitive activities such as industry, manufacturing, transportation and agriculture.
- Noise-sensitive land uses are generally acceptable within the *Zone I*. However, though an area may only receive *Zone I* levels, military operations may be loud enough to be heard- or even judged loud on occasion. *Zone I* is not one of the contours shown on the map; rather it is the entire area outside of the *Zone II* contour.
- A *Land Use Planning Zone (LUPZ)* is a subdivision of Zone I. The *LUPZ* is 5 dB lower than the Zone II. Within this area, noise-sensitive land uses are generally acceptable. However, communities and individuals often have different views regarding what level of noise is acceptable or desirable. To address this, some local governments have implemented land use planning measures out beyond the Zone II limits. Additionally, implementing planning controls within the *LUPZ* can develop a buffer to avert the possibility of future noise conflicts.

C-6. See Table C for land use guidelines.

TABLE C. NOISE ZONE DECIBEL LEVELS (AR 200-1).

Noise Zone	**Aviation (ADNL)**	**Small Arms (PK15(met))**	**Large Arms, Demolitions, Etc. (CDNL)**
Land Use Planning Zone (LUPZ)	60-65	N/A	57 – 62
Zone I	<65	<87	<62
Zone II	65-75	87 – 104	62 – 70
Zone III	>75	>104	>70

APPENDIX D

AIRFIELD NOISE CONTOUR COMPARISON

D-1. REFERENCES.

a. Fort Carson, 2009. Final Environmental Impact Statement (FEIS) for Implementation of Fort Carson Grow the Army Stationing Decisions, February 2009.

b. U.S. Army, 2008, U.S. Army Center for Health Promotion and Preventive Medicine, Addendum to Operational Noise Consultation 52-ON-046N-06, Operational Noise Contours for Fort Carson, CO, April 2006. Dated 16 October 2008.

c. U.S. Army, 2011. Final Programmatic Environmental Impact Statement (PEIS) for the Realignment, Growth and Stationing of Army Aviation Assets, February 2011.

D-2. PREVIOUS AIRFIELD CONTOUR.

a. The airfield contours presented in the FEIS and PEIS are shown in Figure D. These contours were originally developed in 1999 based on 64,884 flights over 180 days (actual operating days) and the majority of the activity (rotary-wing) utilizing Runway 04/22. Table D indicates the flight activity.

TABLE D. BUTTS ARMY AIRFIELD OPERATIONS (1999).

Aircraft Type	**Number of Flights**	**Average Number of Flights per Day** (based on 180 operating days)
AH-1	15,290	85
AH-64	17,066	95
C-130	230	1
CH-47	160	<1
DHC-6	30	<1
OH-58	16,505	<1
T-41	53	92
UH-1	135	<1
UH-60	15,415	86

b. Based on the 1999 contours, Zone III (>75 ADNL) did not extend beyond the installation boundary or into any noise sensitive land uses on Fort Carson. The Zone II (65-75 ADNL) and the LUPZ (60 – 65 ADNL) extended beyond the western boundary. However, these apparent "off-post" contours were artifacts resulting from entering the exact prescribed flight tracks into the NOISEMAP computer program. The computer program treated each aircraft as passing over the exact same points so the sound energy was treated as if concentrated along a line. In reality, aircraft fan out in different directions along the western boundary and many of the aircraft turn back into Fort Carson before they pass over the boundary.

c. During intervening years, the original inputs were reviewed to determine if enough variables had changed to warrant a reanalysis. During the 2007 calendar year, there were 28,725 operations. Since the low number of operations was due to deployments, the 1999 contours were kept as baseline to represent normal non-deployment operational levels.

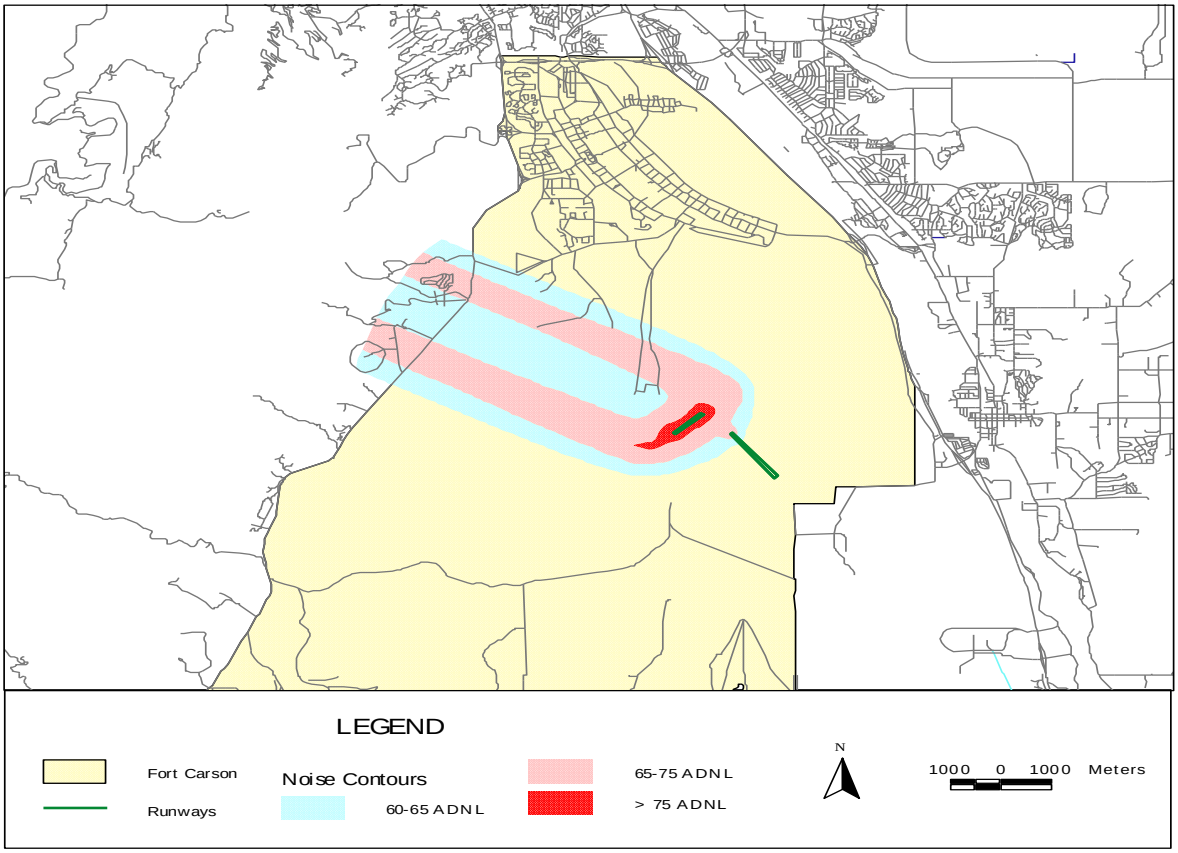


FIGURE D. BUTTS AAF AIRFIELD CONTOURS.

D-3. CURRENT AIRFIELD CONTOURS. Due to several factors, a new modeling analysis was completed for this consultation. Changes to modeling parameters included:

- Based on Fiscal Year 2011 operations, the number of flights increased to 103,199.
- Per Federal Aviation Administration and Army policy, contours are based on a Yearly Day-Night average Noise Level.
- Increased flight corridor altitudes.
- Changes in frequency of use for approach/ departure and closed-pattern routes.
- Changes in aircraft.

APPENDIX E

WEAPON EXPENDITURE

FORT CARSON SMALL CALIBER RANGE OPERATIONS

	PISTOL, 9 MM, LIVE	RIFLE, 5.56 MM, LIVE	MACHINE GUN, 7.62 MM, LIVE	SHOTGUN, 12 GAUGE, NONLETHAL
RANGE 3 - MILITARY POLICE QUALIFICATION COURSE	X			
RANGE 5 - COMBAT PISTOL QUALIFICATION COURSE	X			
RANGE 7A - KNOWN DISTANCE RANGE		X	X	
RANGE 9 - SF MUTLIPLE USE RANGE		X	X	
RANGE 13A - ZERO RANGE		X		
RANGE 15 - MACHINE GUN ZERO RANGE			X	
RANGE 29 - CLOSE QUARTERS COMBAT RANGE		X		
RANGE 37 - SCALED MORTAR RANGE				X
RANGE 43 - SF MULTIPLE USE RANGE		X		
RANGE 45 - KNOW DISTANCE RANGE			X	
RANGE 49 - AUTOMATED RECORD FIRE RANGE		X		
RANGE 51 - ZERO RANGE		X		
RANGE 55 - AUTOMATED FIELD FIRE RANGE		X		
RANGE 57 - AUTOMATED RECORD FIRE RANGE		X		
RANGE 63 - ZERO RANGE		X		
RANGE 65 - ZERO RANGE		X		
RANGE 69 - AUTOMATED RECORD FIRE		X		

PINON CANYON MANEUVER SITE SMALL CALIBER RANGE OPERATIONS

	PISTOL, 9 MM, LIVE	RIFLE, 5.56 MM, LIVE	MACHINE GUN, 7.62 MM, LIVE	MACHINE GUN, .50 CAL, LIVE
RANGE 1 - COMBAT PISTOL QUALIFICATION COURSE	X			
RANGE 3 - AUTOMATED RECORD FIRE		X		
RANGE 7 - MULTI PURPOSE MACHINE GUN		X	X	X

APPENDIX F
FORT CARSON DEMOLITION AND LARGE CALIBER WEAPON EXPENDITURE

		BASELINE ACTIVITY		PROJECTED ACTIVITY	
Firing Location	**Weapon and Ammunition Type**	**DayShots 0700-2200**	**NightShots 2200-0700**	**DayShots 0700-2200**	**NightShots 2200-0700**
Hellfire North	Hellfire Missile, HE	145	35	145	35
	Hellfire Missile, Inert	0	0	144	0
Hellfire South	Hellfire Missile, HE	145	35	145	35
	Hellfire Missile, Inert	0	0	144	0
Mortar Point 02	120mm Mortar, HE	250	13	250	13
	120mm Mortar Inert	1173	62	1173	62
	60mm Mortar, HE	95	5	95	5
	60mm Mortar, Inert	472	25	472	25
	81mm Mortar, HE	78	4	78	4
	81mm Mortar, Inert	212	3	212	3
Mortar Point 03	120mm Mortar, HE	250	14	250	14
	120mm Mortar, Inert	1173	62	1173	62
	60mm Mortar, HE	95	5	95	5
	60mm Mortar, Inert	472	25	472	25
	81mm Mortar, HE	24	1	24	1
	81mm Mortar, Inert	66	2	66	2
Mortar Point 16	120mm Mortar, HE	249	13	249	13
	120mm Mortar, Inert	1172	61	1172	61
	60mm Mortar, HE	107	5	107	5
	60mm Mortar, Inert	471	24	471	24
	81mm Mortar, HE	51	3	51	3
	81mm Mortar, Inert	136	2	136	2
Mortar Point 17	120mm Mortar, HE	250	13	250	13
	120mm Mortar, Inert	1173	62	1173	62
	60mm Mortar, HE	95	5	95	5
	60mm Mortar, Inert	471	25	471	25
	81mm Mortar, HE	261	14	261	14
	81mm Mortar, Inert	706	11	706	11
Mortar Point 20	120mm Mortar, HE	249	13	249	13
	120mm Mortar, Inert	1172	61	1172	61
	60mm Mortar, HE	539	14	539	14
	60mm Mortar, Inert	471	24	471	24
	81mm Mortar, HE	336	18	336	18
	81mm Mortar, Inert	907	14	907	14

		BASELINE ACTIVITY		PROJECTED ACTIVITY	
Firing Location	Weapon and Ammunition Type	DayShots 0700-2200	NightShots 2200-0700	DayShots 0700-2200	NightShots 2200-0700
Mortar Point 24	120mm Mortar, HE	250	13	250	13
	120mm Mortar, Inert	1173	62	1173	62
	60mm Mortar, HE	95	5	95	5
	60mm Mortar, Inert	471	25	471	25
	81mm Mortar, HE	833	44	833	44
	81mm Mortar, Inert	2253	33	2253	33
Mortar Point 25	120mm Mortar, HE	250	13	250	13
	120mm Mortar, Inert	1172	62	1172	62
	60mm Mortar, HE	95	5	95	5
	60mm Mortar, Inert	471	25	471	25
	81mm Mortar, HE	192	10	192	10
	81mm Mortar, Inert	520	7	520	7
Range 35B	Hand Grenade, M67, HE	10500	0	10500	0
Range 103	40mm Grenade, HE	46482	2446	46482	2446
Range 105	120mm Tank, Inert	1261	0	1261	0
	25mm Gun, Inert	11588	0	11588	0
Range 109	120mm Tank, Inert	277	119	277	119
	25mm Gun, Inert	42745	10686	42745	10686
Range 111 DMPTR	120mm Tank, Inert	3164	1185	3164	1185
	25mm Gun, Inert	21779	11237	21779	11237
	2.75" Rocket, Inert	0	0	1824	0
	30mm Gun, Inert	0	0	16480	0
Range 115A	40mm Grenade HE	9986	526	9986	526
Range 121A	Bangalore	36	0	36	0
	Crater Charge 40 lbs	214	0	214	0
	Demolition, C4 1.25 lbs	23594	0	23594	0
	Demolition, PETN 2 lbs	21	0	21	0
	Demolition, TNT 1 lb	1257	0	1257	0
	Demolition, TNT 1/4 lb	1163	0	1163	0
	M15 Mine	125	0	125	0
	M181A1 Mine	252	0	252	0
	M19 Mine	121	0	121	0
	M21 Mine	207	0	207	0
	Shape Charge 40 lbs	428	0	428	0
Range 123	20mm Gun, Inert	6602	0	6602	0
	25mm Gun, Inert	183	0	183	0
	30mm Gun, Inert	95450	0	95450	0
Range 125	TOW Missile, Inert	115	0	115	0
Range 127 IPBC	25mm Gun, Inert	24395	6099	24395	6099

Note: Inert is defined as any round that does not create noise upon impact.
Projected increase is highlighted.

		BASELINE ACTIVITY		PROJECTED ACTIVITY	
Firing Location	Weapon and Ammunition Type	DayShots 0700-2200	NightShots 2200-0700	DayShots 0700-2200	NightShots 2200-0700
Range 139	AT4 Rocket, Inert	735	0	735	0
	LAW Rocket, Inert	231	0	231	0
Range 141	155mm Howitzer, HE	18	0	18	0
	155mm Howitzer, Inert	1	0	1	0
	Dragon Rocket, Inert	44	0	44	0
Range 143 DMPRC	120mm Tank, Inert	9303	3252	9303	3252
	25mm Gun, Inert	75847	27779	75847	27779
	TOW Missile, Inert	421	0	421	0
	2.75" Rocket, Inert	0	0	1824	0
	30mm Gun, Inert	0	0	16480	0
Range 145	120mm Tank, Inert	952	389	952	389
	25mm Gun, Inert	21779	11237	21779	11237
Range 149	Stinger Missile, HE	72	0	72	0
Range 151	20mm Gun, Inert	228	0	228	0
	25mm Gun, Inert	101	0	101	0
Range 155 CALFEX	120mm Tank, Inert	842	0	842	0
	25mm Gun, Inert	6271	0	6271	0
	155mm Howitzer, HE	203	50	203	50
	155mm Howitzer, Inert	761	299	761	299
	2.75" Rocket, Inert	0	0	1824	0
	30mm Gun, Inert	0	0	16480	0
Range 155E	120mm Mortar, HE	608	32	608	32
	120mm Mortar, Inert	722	70	722	70
	60mm Mortar, HE	319	17	319	17
	60mm Mortar, Inert	67	3	67	3
	81mm Mortar, HE	611	32	611	32
	81mm Mortar, Inert	285	15	285	15
	Demolition, C4 1.25 lbs	1151	0	1151	0
	Crater Charge, 40 lbs	29	0	29	0
	Shape Charge, 40 lbs	20	0	20	0
Training Area 07	155mm Howitzer, HE	1026	237	1026	237
	155mm Howitzer, Inert	15	266	15	266
Training Area 09	155mm Howitzer, HE	86	21	86	21
	155mm Howitzer, Inert	1	1	1	1
Training Area 10	155mm Howitzer, HE	370	100	370	100
	155mm Howitzer, Inert	7	46	7	46
Training Area 11	155mm Howitzer, HE	425	106	425	106
	155mm Howitzer, Inert	7	178	7	178
Training Area 12	155mm Howitzer, HE	433	104	433	104
	155mm Howitzer, Inert	6	23	6	23

Note: Inert is defined as any round that does not create noise upon impact.
Projected increase is highlighted.

		BASELINE ACTIVITY		PROJECTED ACTIVITY	
Firing Location	Weapon and Ammunition Type	DayShots 0700-2200	NightShots 2200-0700	DayShots 0700-2200	NightShots 2200-0700
Training Area 14	155mm Howitzer, HE	71	18	71	18
	155mm Howitzer, Inert	1	22	1	22
Training Area 16	155mm Howitzer, HE	144	36	144	36
	155mm Howitzer, Inert	2	22	2	22
Training Area 17	155mm Howitzer, HE	1404	351	1404	351
	155mm Howitzer, Inert	22	397	22	397
Training Area 18	155mm Howitzer, HE	213	52	213	52
	155mm Howitzer, Inert	3	57	3	57
Training Area 20	155mm Howitzer, HE	420	105	420	105
	155mm Howitzer, Inert	6	103	6	103
Training Area 21	155mm Howitzer, HE	748	187	748	187
	155mm Howitzer, Inert	12	103	12	103
Training Area 24	155mm Howitzer, HE	1343	337	1343	337
	155mm Howitzer, Inert	21	675	21	675
Training Area 25	155mm Howitzer, HE	75	19	75	19
	155mm Howitzer, Inert	1	18	1	18
Training Area 27	155mm Howitzer, HE	33	9	33	9
	155mm Howitzer, Inert	1	8	1	8
Training Area 28	155mm Howitzer, HE	37	10	37	10
	155mm Howitzer, Inert	1	1	1	1
Training Area 30	155mm Howitzer, HE	63	15	63	15
	155mm Howitzer, Inert	1	46	1	46
Training Area 31	155mm Howitzer, HE	62	15	62	15
	155mm Howitzer, Inert	1	19	1	19
Training Area 40	155mm Howitzer, HE	64	16	64	16
	155mm Howitzer, Inert	1	1	1	1
Training Area 41	155mm Howitzer, HE	60	15	60	15
	155mm Howitzer, Inert	1	1	1	1

Note: Inert is defined as any round that does not create noise upon impact.
Projected increase is highlighted.

Appendix B

Agency Coordination

This Page Intentionally Left Blank.

STATE OF COLORADO

John W. Hickenlooper, Governor
Christopher E. Urbina, MD, MPH
Executive Director and Chief Medical Officer

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
Located in Glendale, Colorado

http://www.cdphe.state.co.us

Laboratory Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090

Colorado Department
of Public Health
and Environment

November 8, 2011

Mr. Mark Bradbury
Directorate of Public Works -
Environmental Division
1626 O'Connell Blvd., Bldg. 813
Fort Carson, CO 80913

RE: CDPHE review of the Final Site Wide Selenium Study, Occurrence and Distribution of Selenium in Groundwater, Fort Carson, CO

Dear Mr. Bradbury:

The Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division (the Division) has reviewed the Final Site Wide Selenium Study, Occurrence and Distribution of Selenium in Groundwater as revised with replacement pages dated November 3, 2011. The Division approves the report.

On the basis of this review and report approval, the Division has determined that the occurrence of selenium in groundwater at Fort Carson is primarily related to the natural conditions at the site. However, selenium is still a RCRA regulated constituent and must continue to be evaluated as part of ongoing RCRA facility investigations (RFIs) at individual solid waste management units (SWMUs) and as part of any waste characterization. If it is determined that after the completion of a SWMU RFI that the selenium does not appear to be related to the known historic operations or groundwater contamination, then Fort Carson should present a line of evidence that any selenium above groundwater risk based screening levels (RBSLs) is not related to the SWMU activities and is naturally occurring. This line of evidence should be submitted as part of a No Further Action (NFA) Justification or as a final risk screening completed as part of a Remedy Completion Report. If the RFI data and lines of evidence support the conclusion that the selenium is consistent with the Site Wide Selenium Study and not the result of SWMU activities, then the Division will not consider selenium to be a constituent of concern in groundwater.

It is emphasized that this correspondence relates to groundwater only and in no way affects the scope of analytical suites with respect to other known or potentially contaminated media such as soils, waste, and investigation and remediation derived waste. In the future, if data and or information suggest that selenium should be reconsidered as a constituent of concern, the Division will notify Fort Carson of this requirement.

If you have any questions concerning this correspondence, please contact H. Roland Clubb at 303.691.4024 (email: roland.clubb@state.co.us).

Mark Bradbury
November 8, 2011
Page 2 of 2

Sincerely,

H. Roland Clubb

Digitally signed by H Roland Clubb
Date: 2011.11.08 11:42:04 -07'00'

H. Roland Clubb, Project Manager
Federal Facilities Remediation and Restoration Unit
Remediation Program

Cc:

Joe Gallegos, FTC
Scott Schultz, AGO
Bill Hennessy, OSJA
Matt Dayoc, USAEC
Terry Samson, USACE
Becky Allen, FTC
Doug Jardine, RAB
Larry Kimmel, USEPA
Mona Douillard, FTC
Russ Hamilton, OSJA
Lee Griffen, El Paso County Health
Deb Anderson, CDPHE
Monica Sheets, CDPHE

File: FCA/5.4.1
C:\Documents and Settings\Ft Carson\Projects\Nitrate-Selenium\Selenium Stdy Final Approval.docx

DEPARTMENT OF THE ARMY
INSTALLATION MANAGEMENT COMMAND
DIRECTORATE OF PUBLIC WORKS
5050 TEVIS STREET, BLDG 305
FORT CARSON, CO 80913-4143

REPLY TO
ATTENTION OF

Directorate of Public Works

Subject: Initiation of Section 106 Consultation for Proposed Combat Aviation Brigade (CAB) Construction Activities, Fort Carson, Colorado

Mr. Ed Nichols
State Historic Preservation Officer
Colorado Historical Society
Civic Center Plaza
1560 Broadway, Suite 400
Denver, Colorado 80202

Certified Mail Receipt No.:
7008 1300 0001 5028 1767

Dear Mr. Nichols:

This letter is intended to initiate Section 106 consultation on proposed construction activities associated with the stationing of a Combat Aviation Brigade at Fort Carson. The activation of the CAB requires the expansion and new construction of facilities at Butts Army Airfield (BAAF) and additional new construction projects within the Wilderness Road Operational Readiness Training Center (ORTC) footprint. This undertaking also involves the eventual demolition of several existing buildings (all ca. 1964) and improvements to Butts Road to meet the demands of increased traffic flow between the Cantonment and Butts Army Airfield. The Fort Carson Cultural Resources Manager (CRM) has determined that the proposed action constitutes an undertaking in accordance with Section 106 [36 CFR 800.16(y)] of the National Historic Preservation Act (NHPA).

The attached report contains background information regarding this undertaking and subsequent review of the Area of Potential Effects (APE) by Fort Carson Cultural Resources personnel, as well as maps of the proposed location. As a result of our internal review and evaluation, the Fort Carson CRM proposes a determination of *"no adverse effect to historic properties"* in accordance with Section 106 [36 CFR 800.5(b)] of the NHPA for the actions encompassed by this undertaking. Additionally, Fort Carson requests an official eligibility determination regarding the following:

- 5EP.6581; 5EP.6582; 5EP.6583; 5EP.6584; 5EP.6585 (forms for each previously submitted to your office).
- 5EP.6586 (forms attached as Enclosure 6).
- 5EP.811; 5EP.812; and 5EP.1836 (Isolated Finds, forms previously submitted to your office).

Should potential impacts to historic properties be identified in the future due to a change in the submitted scope of work and/or proposed location, or should activities be 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 the construction phase of the project, Fort Carson's Inadvertent Discovery of Archaeological Resources or Burials Standard Operating Procedures will be implemented and Section 106 consultation initiated.

This undertaking review has been forwarded to all Native American Tribes with a cultural affiliation to Fort Carson administered lands. Due to the nature and scope of this undertaking, in accordance with 36 CFR 800.2(c)(3), Fort Carson has identified the El Paso County Commissioners, the City of Colorado Springs Historic Preservation Board, Colorado Preservation Inc., and the Colorado Council of Professional Archaeologists as additional interested parties for this action. The point of contact for this issue is Ms. Pamela Miller, Cultural Resources Program Manager, (719) 524-0532 or FAX (719) 526-2305, or by email at pamela.cowen1@us.army.mil.

Sincerely,

Carlos Rivero-deAguilar
Chief, Environmental Division

Signed: 8/8/11

Enclosures



HISTORY Colorado

RECEIVED SEP 13 2011

September 7, 2011

Carlos Rivero-deAguilar
Chief, Environmental Division
Department of the Army
Directorate of Public Works
5050 Tevis Street, Building 305
Fort Carson, Colorado 80913-4143

Re: Initiation of Section 106 Consultation for Proposed Combat Aviation Brigade (CAB) Construction Activities, Fort Carson, Colorado (CHS #60144)

Dear Mr. Rivero-deAguilar:

Thank you for your recent correspondence dated August 8, 2011 (received by our office on August 11, 2011) and the documentation regarding the subject project.

Following our review of the documentation provided, we offer the following comments:

- We concur with your determination that site 5EP1192 is **eligible** for the National Register of Historic Places (NRHP).
- We concur with your determination that isolated finds 5EP811, 5EP812, and 5EP1836 are **not eligible** for the NRHP.
- Resources 5EP6581, 5EP6582, 5EP6583, 5EP6584, 5EP6585, and 5EP.6586 are associated with Butts Army Airfield, located south of the main cantonment area. Item 45 of the Architectural Inventory Forms request information on whether or not there is a potential for the National Register historic district. Item 45 is marked as not having the potential for a historic district, but no justification for this finding is provided. The submitted Architectural Inventory Forms include short histories related to the individual buildings but not a detailed history in regards to the development of Butts Army Airfield. Please provide an evaluation on whether or not the Butts Army Airfield qualifies as an eligible historic district within Fort Carson. Until we receive this additional information, we recommend a finding of **need data** for these six (6) resources.
- We would again like to note some data discrepancies related to previous cultural resource survey coverage on the Fort Carson Military Reservation (FCMR). Enclosure 1A shows three survey areas within the current (CAB) project area that are not currently on file with the Colorado Office of Archaeology and Historic Preservation. We strongly encourage you to contact the director of our Information Management Unit, Ms. Mary Sullivan, to coordinate efforts in rectifying these data issues. She may be contacted directly at (303) 866-4673 or mary.sullivan@chs.state.co.us.

THE COLORADO HISTORICAL SOCIETY
CIVIC CENTER PLAZA 1560 BROADWAY SUITE 400 DENVER COLORADO 80202 *www.historycolorado.org*

- Specific to this project, we request that the following three (3) survey reports (and any associated cultural resources forms) be submitted to our office so we may complete our consultation for the current undertaking:
    1. Memorandum for Record: Cultural Resource Survey and Evaluation, Bulk Fuel Site (Pamela Cowen; 2003).
    2. Memorandum for Record: Cultural Resource Survey and Evaluation for Grow the Army and Other Potential Stationing Acts at Fort Carson (Pamela Cowen and Thomas Baurley; 2008).
    3. Memorandum for Record: Cultural Resource Survey and Evaluation for 2006 Fort Carson Military Reservation/ Southern Delivery System Pipeline Project (Pamela Cowen and Caralee Maechle; 2006).

Please remember that 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.

Thank you for the opportunity to comment. We look forward to continued consultation on the subject project. If we may be of further assistance, please contact Mark Tobias, Section 106 Compliance Manager, at (303) 866-4674 or Mark.tobias@chs.state.co.us.

Sincerely,

for Edward C. Nichols
State Historic Preservation Officer
ECN/MAT

2

DEPARTMENT OF THE ARMY
INSTALLATION MANAGEMENT COMMAND
DIRECTORATE OF PUBLIC WORKS
5050 TEVIS STREET, BLDG 305
FORT CARSON, CO 80913-4143

REPLY TO
ATTENTION OF

[Please note that your return correspondence should be addressed to the undersigned at 1626 O'Connell Street, Building 813, Fort Carson, Colorado, 80913.]

Directorate of Public Works

Subject: Supplemental Information Requested for Section 106 Consultation for Proposed Combat Aviation Brigade (CAB) Construction Activities, Fort Carson, Colorado

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

Certified Mail Receipt No.:
7010 3090 0003 0946 1830

Dear Mr. Nichols:

Thank you for your correspondence dated September 7, 2011 (received by our office on September 13, 2011) regarding proposed construction activities related to the stationing of the 13th Combat Aviation Brigade (CAB) at Fort Carson. Enclosed please find the following three survey reports requested by your office:

1. *Memorandum for Record (MFR): Cultural Resource Survey and Evaluation, Bulk Fuel Site* (Cowen, 2003; negative results survey);

2. *Memorandum for Record (MFR): Cultural Resource Survey and Evaluation for Grow the Army and Other Potential Stationing Acts at Fort Carson* (Cowen and Baurley, 2008; negative results survey);

3. *Memorandum for Record (MFR): Cultural Resource Survey and Evaluation for 2006 Fort Carson Military Reservation/Southern Delivery System Pipeline Project* (Cowen and Maechle, 2006; 5EP04993, 5EP04994, 5EP04995).

Please note that the three sites recorded during the survey for the Southern Delivery System Pipeline Project (5EP04993, 5EP04994, 5EP04995) are not located within the proposed Area of Potential Effects (APE) for the CAB undertaking. However, the documentation for these sites is enclosed with the MFR. The Fort Carson Cultural Resources Manger (CRM) has determined that these sites are not eligible for inclusion in the National Register of Historic Places (NRHP), and Fort Carson requests an official eligibility determination from your office at this time.

Regarding your comments pertaining to the potential historic district status for Butts

Army Airfield (BAAF), we have enclosed the following documents for your reference: Public Affairs Office booklet *Fort Carson: A Tradition of Victory,* which gives a brief history of the development of the BAAF; *The Cold War and Fort Carson: A Historic Context* (McCarthy and McCullough, 2003); and *A Thematic Study and Guidelines: Identification and Evaluation of U.S. Army Cold War Era Military-Industrial Historical Properties* (U.S. Army Environmental Center [USAEC], 1990). The USAEC study was produced to assist Army installations in assessing buildings constructed between 1946 and 1989, and outlines the criteria under which Cold War-era properties should be evaluated (p. 3-4; Section 7.5, p. 117). Airfield construction (p. 86) is specifically addressed to show that facilities on Army installations built during this period were constructed to serve general support needs and would have been built regardless of the Cold War conflict (p. 89).

While several of the buildings at BAAF were constructed in 1965, during the Cold War years, they are not the types of structures (i.e. missile silos, research and development laboratories, etc.) that were built specifically to combat the Russian/Communist threat. These buildings were constructed as Base Operations (BASOPS) facilities to serve Civilians and Soldiers who worked on the Installation. During the mid-1960s, Fort Carson served as the home of the 5th Infantry Division (Mechanized), and its main mission was infantry training. The operations at the airfield supported that mission.

As such, Fort Carson's CRM has determined that BAAF does not meet the criteria necessary to qualify as a historic district, nor do the following buildings meet the criteria standards to be individually eligible for inclusion in the NRHP: Buildings 9600 (5EP06581), 9601 (5EP06582), 9604 (5EP06583); 9611 (5EP06584), 9620 (5EP06585) and 9609 (5EP06586), as they are not specifically associated with a national event (i.e. the Cold War); they are not associated with a person of significant historic importance; they do not embody distinctive architectural characteristics; they are not likely to add additional information important to history or prehistory; and they have not achieved significance within the last fifty years. Also enclosed are revised evaluation forms for these buildings with this additional justification included in Item #45.

Upon your review of the supplemental information provided with this letter, Fort Carson requests an official eligibility determination for the BAAF buildings and three archaeological sites discussed above, as well as your concurrence on our proposed determination of *"no adverse effect to historic properties"* in accordance with Section 106 [36 CFR 800.5(b)] of the NHPA for the actions encompassed by the construction activities associated with the stationing of a CAB at Fort Carson.

As noted in our initial consultation letter for this undertaking, our review and determinations were forwarded to all Native American Tribes with a cultural affiliation to Fort Carson administered lands, the El Paso County Commissioners, the City of Colorado Springs Historic Preservation Board, Colorado Preservation Inc., and the

Colorado Council of Professional Archaeologists. During the 30 day review period, we received comments from the Comanche Tribe of Oklahoma and the City of Colorado Springs. We have enclosed copies of their correspondence for your information. The point of contact for this issue is Ms. Pamela Miller, Cultural Resources Program Manager, (719) 524-0532 or FAX (719) 526-2305, or by email at pamela.cowen1@us.army.mil.

Sincerely,

Carlos Rivero-deAguilar
Chief, Environmental Division

Signed: 9/23/11

Enclosures

HISTORY Colorado

October 14, 2011

RECEIVED OCT 2 1 2011

Carlos Rivero-deAguilar
Chief, Environmental Division
Department of the Army
Directorate of Public Works
1626 O'Connell Street, Building 813
Fort Carson, Colorado 80913

Re: Supplemental Information Requested for Section 106 Consultation for Proposed Combat Aviation Brigade (CAB) Construction Activities, Fort Carson, Colorado (CHS #60144)

Dear Mr. Rivero-deAguilar:

Thank you for your recent correspondence dated September 23, 2011 (received by our office on September 26, 2011) and the additional documentation regarding the subject project.

Following our review of the documentation provided, we offer the following comments:

- We concur with your determination that site 5EP1192 is **eligible** for the National Register of Historic Places (NRHP).
- We concur with your determination that sites 5EP4993, 5EP4994, 5EP4995, 5EP6581, 5EP6582, 5EP6583, 5EP6584, 5EP6585, and 5EP6586 are **not eligible** for the NRHP.
- We concur with your determination that isolated finds 5EP811, 5EP812, and 5EP1836 are **not eligible** for the NRHP.
- We have reviewed the management recommendations regarding site 5EP1192 that stipulates complete avoidance and monitoring of construction activities within close proximity by CRMP staff. Assuming these measures are implemented, we believe a finding of **no adverse effect** is appropriate for the proposed project.

Please remember that 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 during 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,

for Edward C. Nichols
State Historic Preservation Officer
ECN/MAT

www.HistoryColorado.org
HISTORY COLORADO CENTER 1200 BROADWAY DENVER CO 80203

CITY OF COLORADO SPRINGS

PLANNING & COMMUNITY DEVELOPMENT TEAM
Land Use Review Division

August 30, 2011

Pamela Miller
Cultural Resources Program Manager
5050 Tevis Street, Building 305
Fort Carson, CO 80913-4143
Pamela.cowen1@us.army.mil

RE: Section 106 Consultation for Proposed Combat Aviation Brigade (CAB) Construction Activities

Dear Ms. Miller:

This letter is in response to the correspondence this office received on August 10, 2011 initiating Section 106 Consultation procedures for an upcoming construction project.

This office possesses no information about historical sites other than those of which you are already aware. Further, this office concurs with your assessment of "no adverse effect" regarding your planned construction.

Thank you for the opportunity to review and comment.

If you have questions regarding this information, please do not hesitate to contact me at (719) 385-5369 or via email at emccauley@springsgov.com.

Cordially,

ErinKMcCauley

Erin McCauley, AICP LEED AP BD+C
Planner I
Land Use Review Division

30 S. Nevada Avenue, Suite 105 • TEL (719) 385-5905 • FAX (719) 385-5167
Mailing Address: Post Office Box 1575, MC 155 • Colorado Springs, CO 80901-1575

From: Jimmy Arterberry
To: Cowen, Pamela K Mrs CIV USA IMCOM
Subject: CAB Construction Activities, Fort Carson
Date: Thursday, August 25, 2011 9:25:14 AM

Good morning Pam,
A quick note to concur with your finding of 'no adverse efffect' on the proposed Combat Aviation Brigade (CAB) Construction Activities, Fort Carson, Colorado [Certified Mail Receipt No: 7006 0100 0005 9024 7870]

Jimmy W. Arterberry, THPO
Comanche Nation
P.O. Box 908
Lawton, Oklahoma 73502
(580) 595-9960 or 9618
(580) 595-9733 FAX

This message is intended only for the use of the individuals to which this e-mail is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable laws. If you are not the intended recipient of this e-mail, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete this e-mail from both your "mailbox" and your "trash." Thank you.

Northern Cheyenne Tribe
Tribal Historic Preservation Office
P.O. Box 128
Lame Deer, Montana 59043
Phone: (406) 477-4838/4839 Fax: (406) 477-3839

Native American Consultation Response Form

Site Name/OBJECT Consultation for Proposed Combat Aviation Brigade Construction Activities, Fort Carson, CO

TCNS Notification ID Number 7010 1060 0001 0049 1802

Phone/(Fax) (719)526-2305 attn: Pamela Miller

Response:

REQUEST ADDITIONAL INFORMATION___
NO ADVERSE EFFECT X
NO INTEREST___
ADVERSE EFFECT___
NO COMMENT X

Exceptions: If archaeological materials or human remains are encountered during construction, the State Historic Preservation Office and applicable Native American Tribes will be notified.

Signature

9/29/11
Date

Conrad Fisher, T.H.P.O.
Printed Name (Signing Official)

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT CARSON
1626 ELLIS STREET, SUITE 200, BUILDING 1118
FORT CARSON, COLORADO 80913-4145

REPLY TO
ATTENTION OF

[Please note that your return correspondence should be addressed to the undersigned at 1626 Evans Street, Building 1219, Fort Carson, Colorado, 80913.]

Office of Directorate of Public Works

Subject: Initiation of Section 106 Consultation for Proposed Combat Aviation Brigade Training Activities

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

Dear Mr. Nichols:

This letter is intended to initiate Section 106 consultation on proposed training activities associated with the stationing of a Combat Aviation Brigade (CAB) at Fort Carson. The activation of the CAB requires expansion and construction of facilities at Fort Carson which your office has already reviewed (CHS #60144) and provided a finding of no adverse effect. This consultation addresses the use of additional aviation assets and support equipment associated with using the training lands and ranges at both Fort Carson and Pinon Canyon Maneuver Site (PCMS). The Fort Carson Cultural Resources Manager (CRM) has determined that the proposed action constitutes an undertaking in accordance with Section 106 [36 CFR 800.16(y)] of the National Historic Preservation Act (NHPA).

Attached is a map of the Area of Potential Effects (APE) of the proposed CAB training activities at Fort Carson (Enclosure 1) and PCMS (Enclosure 2). As a result of our internal review and evaluation, the Fort Carson CRM proposes a determination of *"no adverse effect to historic properties"* in accordance with Section 106 [36 CFR 800.5(b)] of the NHPA for the actions encompassed by this undertaking. Fort Carson proposes to achieve this "*no adverse effect to historic properties*" and minimize the cumulative effects of the action by restricting aviation activities in the vicinity of historic properties. Fort Carson will restrict hovering over historic properties with standing architecture with structural integrity (see Enclosure 3 and accompanying maps [Enclosures 1 and 2]). Additionally, no landings/takeoffs or support operations will occur within 100 meters of all National Register-eligible properties.

Should potential impacts to these historic properties be identified in the future the flight restriction rules will be revisited and additional Section 106 consultation will be initiated as required.

This undertaking review has been forwarded to all Native American Tribes with a cultural affiliation to Fort Carson administered lands, and to the following interested parties: Las Animas County Commissioners, Otero County Commissioners, Southern Colorado Environmental Council, Colorado Council of Professional Archaeologists, Colorado Preservation, Inc., Not 1 More Acre!, Dr. Lawrence Loendorf, and Loretta Martin of the Louden-Henritze Archaeology Museum in Trinidad. The point of contact for this issue is Wayne Thomas, Chief, NEPA and Cultural Management Branch, (719) 526-1852 or by email at george.w.thomas16.civ@mail.mil.

Sincerely,

Carlos Rivero-deAguilar
Chief, Environmental Division

Signed: 12/29/11

Enclosures

HISTORY Colorado

RECEIVED FEB 07 2012

January 30, 2012

Carlos Rivero-deAguilar
Chief, Environmental Division
Department of the Army
Directorate of Public Works
1626 Evans Street, Building 1219
Fort Carson, Colorado 80913

Re: Initiation of Section 106 Consultation for Proposed Combat Aviation Brigade (CAB) Training Activities and Request for Review of Draft Environmental Assessment (CHS #61091)

Dear Mr. Rivero-deAguilar:

Thank you for your recent correspondence dated December 29, 2011 (received by our office on January 5, 2012) initiating consultation under Section 106 of the National Historic Preservation Act (Section 106). We also appreciate the opportunity to review the 2012 Draft Environmental Assessment (EA) titled "Fort Carson Combat Aviation Brigade Stationing Implementation" and to discuss project details with Wayne Thomas, Chief, NEPA and Cultural Management Branch, on January 27, 2012.

We have reviewed the provided documentation and are unable to concur with your determination of effect under Section 106 for the proposed project at this time. We offer the following preliminary comments:

1. We understand that the Army has defined the Area of Potential Effects (APE) for this undertaking as the present boundaries of Fort Carson and the Pinon Canyon Maneuver Site (PCMS) where CAB training will occur. However the APE, as defined by 36 CFR 800.16(d), should include the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if such properties exist. The Army should also consider reasonably foreseeable effects caused by this undertaking that may occur later in time, be farther removed in distance or be cumulative [36 CFR 800.5(a)(1)]. As such, we believe that the APE should be expanded to include the proposed low-level (50 to 100-feet above ground level (AGL)) training route between Fort Carson and the PCMS (aka Route Hawk) and any other geographic area or areas for which aerial training will occur outside the formal boundaries of Fort Carson and the PCMS. Further, we recommend that the APE for this undertaking include an appropriate horizontal buffer to ensure that all indirect effects (including visual, noise, and vibration) that may result from the undertaking be adequately considered.
2. We believe that the proposed aviation restrictions within the vicinity of historic properties [36 CFR 800.16(l)(1)] on federally managed lands provides a good foundation for future discussion. These administrative control measures include hovering restrictions "over historic properties with standing architecture with structural integrity" and the limiting of landings/takeoffs or support operations "within 100 meters of all National Register-eligible properties." However, we request clarification why the Army only believes hovering should be limited to those historic properties containing "standing architecture *with* structural integrity" [emphasis added]. We believe that any historic property that contains extant structures could be affected by this

undertaking and therefore should be avoided. Further, we request that the Army reconsider how these activities could hasten or exacerbate surface erosion within other types of historic properties located within the APE. For example, we believe that hovering in close proximity of archaeological sites containing rock art may affect these sensitive features through sand blasting or scouring and/or loosening of the fragile rock panels through the introduction of increased vibration.

3. We would also like to make you aware of two projects that are located in close proximity to the PCMS to ensure that this information is adequately considered during Section 106 consultation:
   a. A State Historical Fund (SHF) grant to the National Trust for Historic Preservation for the preparation of approximately 14 National Register (NR) nominations under an amended Santa Fe Trail 1821-1880 Multiple Property Documentation Form (MPDF) for trail segments and associated resources. While the trail largely does not run on PCMS lands themselves, portions of the trail may be present within the defined boundaries of Route Hawk and adjacent areas. This ongoing project involves a number of collaborating partners including History Colorado, National Park Service, U.S. Army Corps of Engineers, Santa Fe Trail Association, U.S. Forest Service, and local officials and property owners.
   b. Additionally, Colorado Preservation, Inc. has engaged in survey in Las Animas and Otero that has identified NR-eligible districts and sites in proximate areas related to the history of homesteading. These are likely within the proposed expanded APE. These districts and sites contain both architectural and archaeological historic resources.
   c. We suggest that you include the above referenced organizations in discussions as part of the required identification of historic properties per 36 CFR 800.4. Many of these groups likely possess information not contained in our statewide database and are best able to relay specific issues of local concern.
4. We understand that the Army has already contracted for a study regarding the effects of helicopter flyovers on historic properties and we would like to thank the Army for this proactive approach. However, we request that this study include a comprehensive analysis of the direct, indirect, and cumulative effects of hovering and takeoff/landings on the range of historic property types located within Fort Carson/PCMS. This study should include variables such as, but not limited to, the type of helicopters used, payload, type of activity, and the horizontal and vertical distance to historic properties. This empirical data will enable our office and other consulting parties the opportunity to better understand and comment on the adequacy of the Army's proposed avoidance measures.
5. Finally, we believe that CAB activities should be restricted from areas of the PCMS that have not yet been surveyed for cultural resources. The draft EA indicates that approximately eleven-percent (or approximately 26,000-acres) of the PCMS remain unsurveyed. As high concentrations of archaeological and historic sites have been identified within the surveyed portions of the PCMS, we reasonably anticipate similar site densities in these remaining unsurveyed areas.

Please note that it is the responsibility of the Federal agency to comply with Section 106 as set forth in 36 CFR 800. This obligation includes the identification of any historic properties (i.e. cultural resources which are eligible to be listed in the National Register of Historic Places) within the APE and determining whether the undertaking will have an effect upon such properties. The State Historic Preservation Office, Native American tribes, representatives of local governments, and applicants for Federal permits, licenses or other approval are entitled to consultative roles in this process.

Additional information provided by the local government and/or consulting parties might cause our office to re-evaluate our consultations with your office. Please note that this letter does not end the 30-day review period provided to other consulting parties.

Also note that information regarding significant archaeological resources is excluded from the Freedom of Information Act. Therefore, legal locations of these resources must not be included in documents for public distribution.

We look forward to consultation with the Army and other parties, as appropriate, regarding the effect of the undertaking on historic properties. 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,

for Edward C. Nichols
State Historic Preservation Officer
ECN/MAT

3

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT CARSON
1626 ELLIS STREET, SUITE 200, BUILDING 1118
FORT CARSON, COLORADO 80913-4145

REPLY TO
ATTENTION OF

[Please note that your return correspondence should be addressed to the undersigned at 1626 Evans Street, Building 1219, Fort Carson, Colorado, 80913.]

Directorate of Public Works

Subject: Follow-up to Initiation of Section 106 Consultation for Proposed Combat Aviation Brigade Training Activities (CHS #61091)

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

Dear Mr. Nichols:

Thank you for your correspondence, dated January 30, 2012, regarding the above-mentioned undertaking. The purpose of this letter is to respond to some of the questions/concerns raised from Fort Carson's initial correspondence of December 29, 2011, and during the meeting held with Richard Wilshusen and Mark Tobias, of your office on May 1, 2012.

After additional review, Fort Carson has expanded the Area of Potential Effect (APE) for Combat Aviation Brigade training to include Route Hawk and continues to include both Fort Carson and Pinon Canyon Maneuver Site (PCMS). See enclosures 1 (Fort Carson), 2 (PCMS) and 3 (Route Hawk) for the new APE.

Fort Carson did not include areas outside of this APE because they are not believed to be affected by Combat Aviation Brigade (CAB) training activities. The area between Fort Carson and PCMS does not have established air corridors. Helicopters typically in routine transit maintain an altitude of 1,000 feet above ground level (AGL) or higher. Military aircraft in transit must comply with Federal Aviation Administration (FAA) regulations applicable to all helicopters in flight. Additionally, local military regulations contain a host of additional restrictions and generally require a minimum off-post altitude of 500 feet AGL unless they are operating for training purposes along Route Hawk, a designated low-level training route. The frequency of CAB flights from Fort Carson to PCMS and returning is expected to be up to 20 days per month; with an average of eight daily flights along the route.

The Army does not consider CAB activities outside of this defined APE relevant to our consultation under Section 106 of the National Historic Preservation Act (NHPA). In our opinion, CAB aircraft outside of this APE are flying high enough or infrequently enough to not be a concern under the Act.

To address some of your questions/concerns related to Route Hawk the following information is provided.

- Route Hawk is designated as a low-level training route. It is one mile wide. Helicopters fly in excess of 100 knots (115 miles per hour), no lower than 100 feet AGL with the goal of flying at 150 feet above the high points of terrain features along the route. Pilots performing low-level flight training on Route Hawk typically only fly low-level in one direction; either from Fort Carson to PCMS or from PCMS to Fort Carson. Not all flights utilizing Route Hawk fly at low-levels; however, utilizing Route Hawk at any level allows for reporting in at designated checkpoints. Route Hawk is not a nap-of-the-earth (NOE) flying route. NOE flying is only conducted on Fort Carson or PCMS.

  Fort Carson provided your office helicopter rotorwash data for the UH-60 (Blackhawk) and CH-47 (Chinook) by email on April 10, 2012. The data we provided reliably shows anticipated rotorwash along Route Hawk of not more than 17 knots at ground level from the heaviest helicopter type at the lowest permissible altitude. Based on follow-on discussions on May 1, 2012 with members of your staff, Fort Carson believes that concerns related to helicopter rotorwash should be resolved along Route Hawk, as well as any other areas within the APE with known or unknown cultural resources as long as helicopters operate at 100 feet or more above the terrain. There are no known cultural resources or historic buildings along Route Hawk. Typical winds along the route are very often greater than the anticipated rotorwash from the occasional passing helicopter.

- Helicopter takeoff/landing concerns should also be resolved based on the helicopter rotorwash data provided. Fort Carson will establish into policy documents that UH-60s will not land or takeoff any closer than 100 meters from historic properties or unsurveyed areas, and for CH-47s the distance will be 150 meters. This minimum stand-off distance is based on the assumption that a short duration wind speed of 17 knots or less would have no reasonable adverse effects on historic properties.

- Your staff identified 2 projects in progress in the vicinity of PCMS. Fort Carson has made initial contact with these organizations and is in the process of coordinating an information sharing meeting. We have subsequently proposed some initial changes to Route Hawk in order to reduce flight time in the vicinity of

the Santa Fe Trail. We are committed to continued interaction and consultation with interested parties to diminish impact and avoid the most sensitive portions of the trail. While we cannot avoid crossing the trail altogether, we believe continued discussions with all concerned parties can identify additional measures to minimize impacts on the trail.

Any questions/concerns that are yet unresolved will continue to be addressed in the course of our continuing consultation on CAB operations. Fort Carson is willing to address any reasonable concern and take appropriate actions as necessary.

The point of contact for this issue is Wayne Thomas, Chief, NEPA and Cultural Management Branch, (719) 526-1852 or FAX (719) 526-1705, or by email at george.w.thomas16.civ@mail.mil.

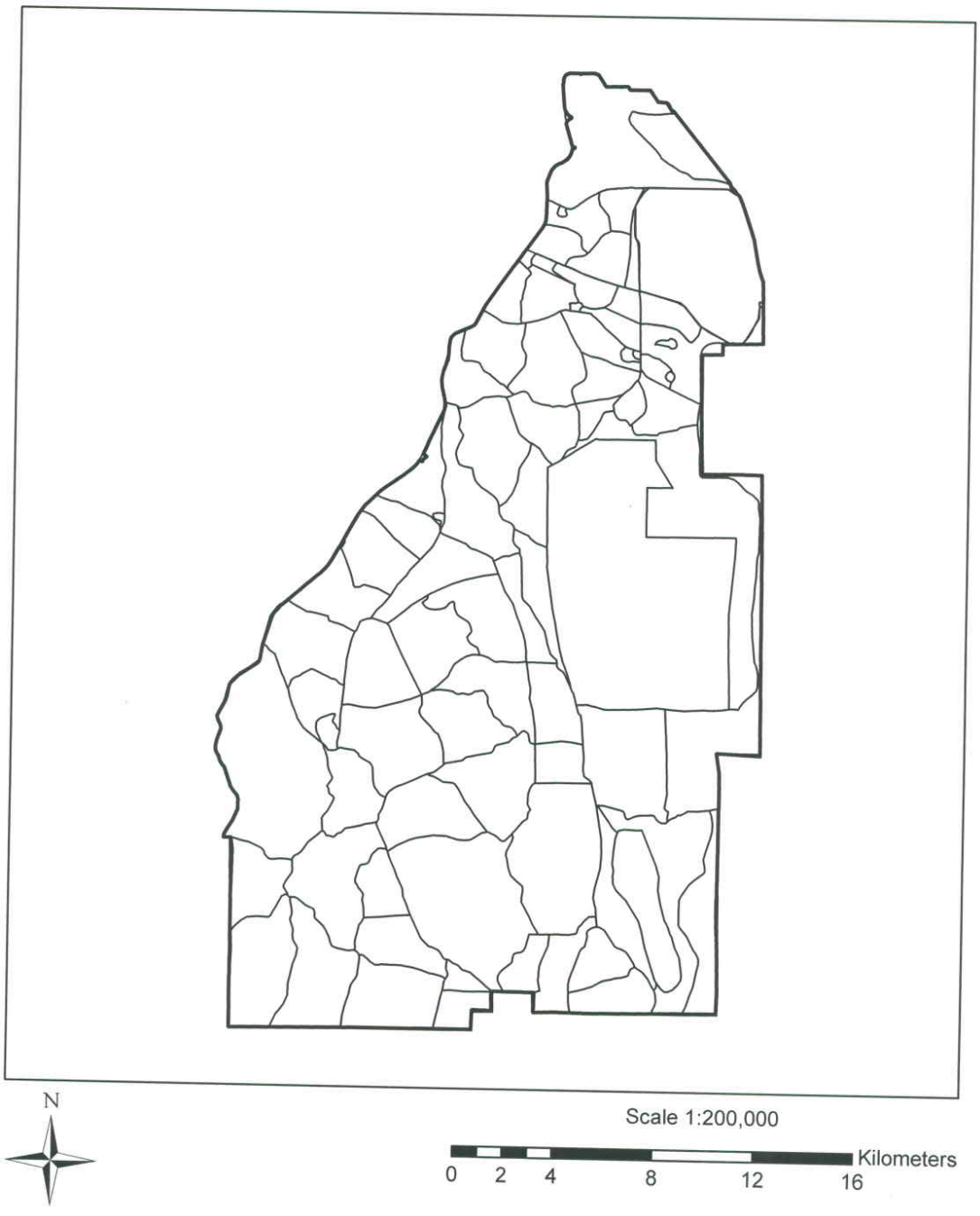
Sincerely,

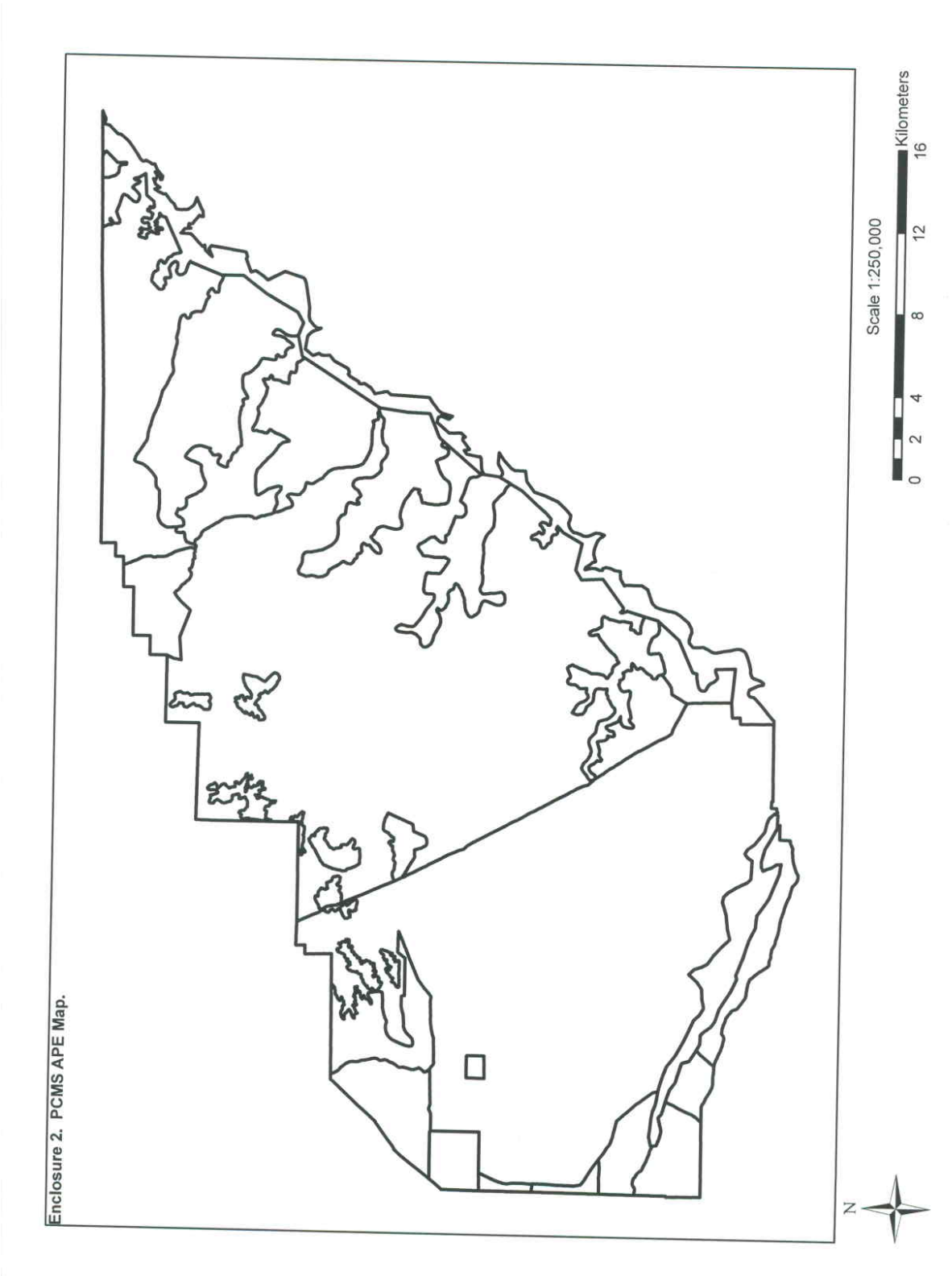
Carlos Rivero-deAguilar
Chief, Environmental Division

Signed: 26 June 2012

Enclosures

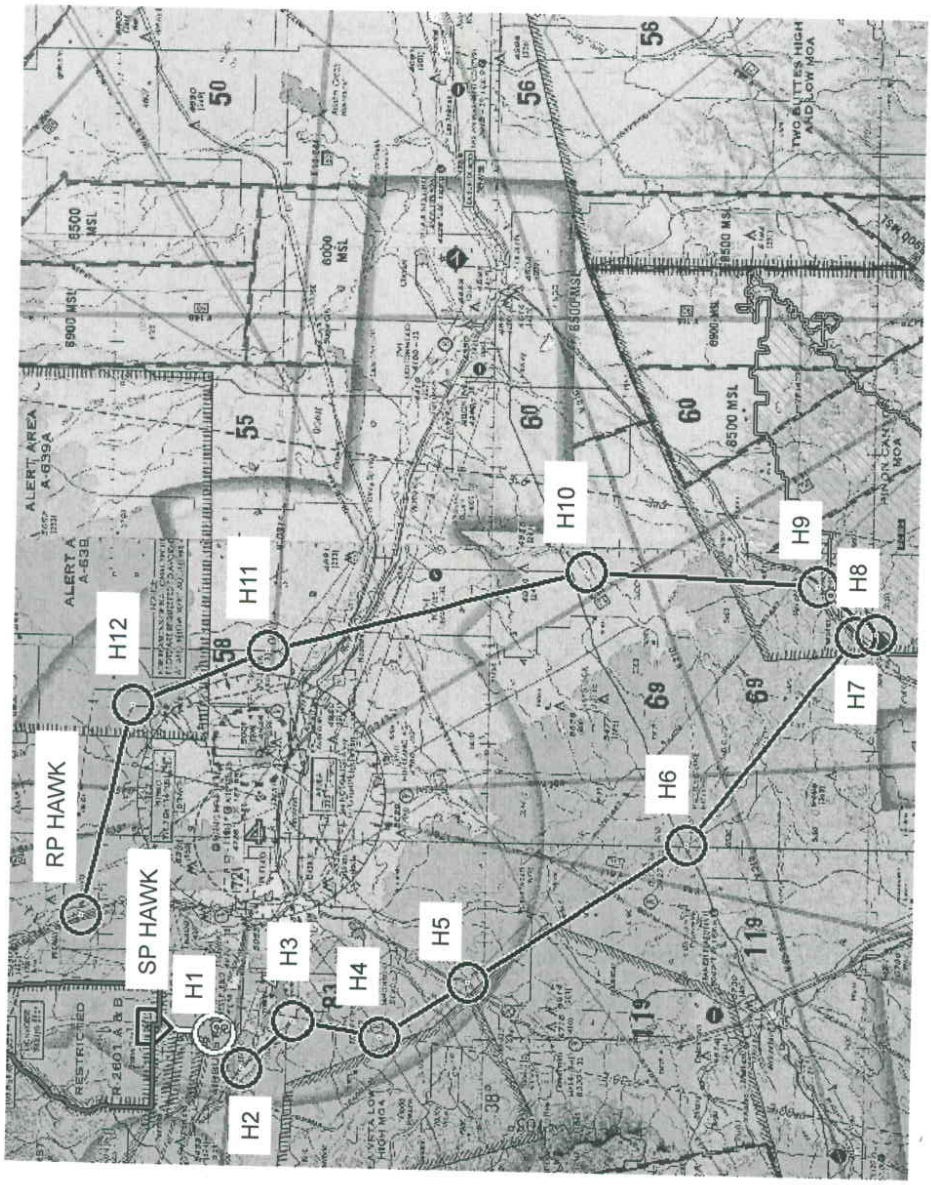
Enclosure 1. Fort Carson APE Map.




Scale 1:250,000
Kilometers
0 2 4 8 12 16
N
Enclosure 2. PCMS APE Map.

Enclosure 3A - Route Hawk (Map)

MODIFIED ROUTE HAWK



MODIFIED ROUTE HAWK

Turn Pt	Type DTD	AddPt Type	Fix/Point Description	Latitude Longitude	MGRS UTM	Elev MV
1	ST		.SP	N 38 25.98	13S EC 1536 5388	5475FT
			RIVER BRIDGE	W104 49.44	N 13 51536 425388	8.7E
2			.H-1	N 38 21.33	13S EC 1454 4527	5101FT
			HWY BRIDGE	W104 50.02	N 13 51454 424527	8.7E
3			.H-2	N 38 19.05	13S EC 0973 4105	4957FT
			RR BRIDGE	W104 53.32	N 13 50973 424105	8.7E
4			.H-3	N 38 15.14	13S EC 1683 3383	4973FT
			HWY BRIDGE	W104 48.46	N 13 51683 423383	8.7E
5			.H-4	N 38 08.32	13S EC 1467 2121	5383FT
			HWY BRIDGE	W104 49.96	N 13 51467 422121	8.7E
6			.H-5	N 38 01.36	13S EC 2304 0836	5328FT
			I-25 BRIDGE	W104 44.25	N 13 52304 420836	8.6E
7			.H-6	N 37 44.42	13S EB 4416 7713	5938FT
			HWY T INTERSEC	W104 29.93	N 13 54416 417713	8.5E
8			.H-7	N 37 31.31	13S EB 7576 5310	5524FT
			RR BRIDGE	W104 08.56	N 13 57576 415310	8.3E
9			.H8	N 37 29.72	13S EB 7622 5018	5715FT
			PCMS AF	W104 08.26	N 13 57622 415018	8.2E
10			.H-9	N 37 34.33	13S EB 8320 5877	5252FT
			RR BRIDGE	W104 03.47	N 13 58320 415877	8.3E
11			.H-10	N 37 52.65	13S EB 8429 9265	4603FT
			HWY T INTERSEC	W104 02.49	N 13 58429 419265	8.3E
12			.H-11	N 38 17.61	13S EC 7134 3870	4842FT
			ROAD TRIANGLE	W104 11.05	N 13 57134 423870	8.4E
13			.H-12	N 38 28.27	13S EC 6274 5833	5141FT
			BUILDING ON RR	W104 16.85	N 13 56274 425833	8.4E
14			.RP	N 38 32.04	13S EC 3162 6513	5249FT
			RR BRIDGE	W104 38.23	N 13 53162 426513	8.6E

Enclosure 3B - Route Hawk (Coordinates)

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

OTERO COUNTY

Office of the Commissioners

RECEIVED FEB 27 2012

February 21, 2012

Department of the Army
DPW Environmental Division
ATTN: Wayne Thomas, Chief
NEPA and Cultural Management Branch
1626 Evans Street, BLDG 1219
Fort Carson, Colorado 80913-4362

RE: Section 106 Consultation for Proposed Combat Aviation Brigade Training Activities

Dear Mr. Thomas:

The Otero County Board of Commissioners in consultation with the Otero County Historic Preservation Board has reviewed the letter and report received from the Fort Carson/PCMS Cultural Resource Management staff concerning the proposed combat aviation Brigade training activities.

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. Following are our comments concerning the proposed action.

We do not concur with the Army's finding of no adverse affect to historic properties. In addition, we have serious concerns about both the Section 106 Review and the Environmental Assessment (EA) prepared for the CAB training. The following are our preliminary concerns:

1. The Section 106 consultation, and associated EA, identifies the Area of Potential Effect (APE) as totally within the borders of the PCMS. However, maps included in the EA clearly show that the Route Hawk flight path and Military Operations Area (MOA) extend well beyond the PCMS boundaries, and that large areas of private lands in Otero and Las Animas Counties are included in the MOA and Route Hawk. No consideration was given in any of the documents to the potential adverse effects to historic resource on land surrounding the Maneuver Site and within the MOA of Route Hawk. We believe that the APE should be expanded to include the 50-500 feet above ground level for the proposed training route between Fort Carson and the PCMS, and all other geographic

(719)383-3000 *P.O. Box 511 La Junta CO 81050-0511* *(719)383-3090 Fax* EQUAL HOUSING OPPORTUNITY *(719)383-2456 TDD*

area or areas for which aerial training will occur outside the formal boundaries of Fort Carson and the PCMS.

2. A large section of the Santa Fe National Historic Trail lies underneath the Route Hawk flight path and within the designated Military Operations Area (MOA). This segment of the Trail maintains an extremely high level of historic integrity. In addition, several important historic sites related to the Trail also lay within the Route Hawk and MOA. Section 800.5 *Assessment of Adverse Effects*, of Section 106 of the states "An adverse effect is found when an undertaking MAY alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association." Item (V) states that this includes "Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features". We recommend that the Army use the cultural landscape approach, as required, and consider the potential impacts to the viewshed, soundscape and atmospheric elements of the Trail and associated historic sites.

3. The information provided states that the Combat Landing Strip for the CAB is located within the Cantonment Area at the PCMS. This area is directly across Highway 350 from the Santa Fe National Historic Trail, yet the potential impacts to the Trail from increased aviation and mechanized vehicle use of the Landing Strip and Cantonment Area were not considered. Again, much further consideration should be given to the potential negative impacts to the cultural landscape and historic integrity of the Trail.

4. There are numerous documented National Register Eligible Sites, Districts and Historical Rural Landscapes on private lands lying within the Route Hawk flight path and MOA. The introduction of low altitude helicopter flights has the potential to have significant adverse effects on these sites. We recommend that the potential adverse effects to those sites within the expanded APE be thoroughly considered.

5. We believe that the Army's proposed aviation restrictions within the vicinity of historic properties on the PCMS are inadequate. Implementing hovering restrictions only "over historic properties with standing architecture with structural integrity", and limiting landings / takeoffs and support operations "within 100 meters of all National Register-eligible properties" will potentially expose numerous sites to adverse effects. We recommend that restrictions be developed providing for avoidance of all National Register eligible properties with existing structural elements. Hovering and takeoffs/landings near archaeological or rock art sites also should be restricted to eliminate potential adverse effects from surface erosion, blowing sand/soil and vibrations.

In addition, the proposed CAB training over and near Historic Rural Landscapes and the Santa Fe National Historic Trail have the potentially to undermine ongoing Heritage and Agri-Tourism efforts in the region. These potential negative impacts also should be thoroughly considered, and organizations associated with these efforts should be given the opportunity to comment on this proposed action and possible negative impacts.

Based on the above information, Otero County does not concur with the Army's finding of no adverse effect.

Sincerely,

Kevin K. Karney, Chair
Otero County Board of Commissioners

Keith Goodwin

Jim Baldwin

cc: Senator, Michael Bennet
Senator, Mark Udall
Representative, Scott Tipton
Representative, Cory Gardner
Katherine Kerr, Advisory Council for Historic Preservation
Amy Pallante, Section 106 Compliance Manager, State Historic Preservation Office

United States Department of the Interior

NATIONAL PARK SERVICE
National Trails –Intermountain Region
P.O. Box 728
Santa Fe, New Mexico 87504-0728

IN REPLY REFER TO:

February 3, 2012

Carlos Rivero -deAguilar
Chief, Environmental Division
Department of the Army
Directorate of Public Works
1626 Evans Street, Building 1219
Fort Carson, Colorado

Dear Mr. Rivero-de Aguilar,

The National Park Service National Trails Intermountain Region (NTIR) office has reviewed the 2012 Draft Environmental Assessment (EA) titled "Fort Carson Combat Aviation Brigade Stationing Implementation". The Santa Fe National Historic Trail (NHT), one of the NHTs that our office administers, is very likely to be adversely affected by the proposed flights.

The Area of Potential Effects (APE) that the Army has defined only encompasses the boundaries of Fort Carson and the Pinon Canyon Maneuver Site (PCMS). The APE should include the geographic area within which an undertaking may directly or indirectly affect the character or use of historic properties along the flight routes. It is recommended that the APE be expanded to include the geographic flight area between the two military installations where effects such as noise, vibrations, and visual impacts that could result from the undertaking be appropriately considered.

Even though these are not earth-disturbing activities, low-altitude military overflights of National Historic Trails (NHTs) have the potential to adversely affect NHT settings. The trail setting, or cultural landscape, extends above the ground into the sky, as well as across the landscape to the horizon from our trails in these sparsely populated and undeveloped areas. Effects of the low altitude flights may be irregular and of short-duration, but could occur frequently and repeatedly. The effects of the flights can be visual, auditory, and vibratory. Artificial illumination of currently very dark night skies from the helicopter's lights and engines, vibrations, noise, and the startling of animals, game, and humans will degrade the visitor experience of the trail setting adversely. In addition, vibrations from helicopter low-altitude flights could have severe and adverse effects on trail-related resources, such as buildings.

The segment of the Santa Fe Trail from Timpas to Tyrone represents the longest undeveloped section of the Trail. The historic views and quiet atmospheric conditions of this segment are critical to experiencing the trail and its historic integrity. This segment of the Trail lies underneath the helicopter path between Fort Carson to the PCMS. There are significant National Register eligible trail segments and historic sites in this area. Two are considered "high potential historic sites" meeting the criteria in the National Trails System Act of 1968. Segments and sites along portions of the proposed flight path "afford high quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the original users of a historic route."

NTIR requests that the Army consider prohibiting low-altitude overflights within five miles of the NHT corridors. Even this will not entirely eliminate effects from overflights in the surrounding area, but it will reduce the likelihood of severe adverse effects on the trail, trail-associated resources, and trail settings. This office can provide maps and GIS data showing where the known trail corridors lie. In addition, a major investigation of Santa Fe Trail related cultural resources will be taking place this spring and summer through funding and support from this office, the Colorado Historical Fund, and the United States Forest Service. The project is in partnership with many entities including the National Trust for Historic Preservation, Santa Fe Trail Association, Scenic ByWays, U.S. Army Corps of Engineers, and Las Animas and Otero counties. Information from this work can help inform the U.S. Army as to the extent and nature of Santa Fe Trail related cultural properties within the recommended expanded APE.

Thank you for considering our comments. Please contact Michael Elliott of NTIR for further information, or if you have any questions, at 505-988-6092 or michael_elliott@nps.gov.

Sincerely,

Aaron Mahr Yáñez
Superintendent

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT CARSON
1626 ELLIS STREET, SUITE 200, BUILDING 1118
FORT CARSON, COLORADO 80913-4145

REPLY TO
ATTENTION OF

[Please note that your return correspondence should be addressed to the undersigned at 1626 Evans Street, Building 1219, Fort Carson, Colorado, 80913.]

Office of Directorate of Public Works

Subject: Initiation of Section 106 Consultation for the Proposed Construction of Tie Down/Cold Refueling Pads at the Existing Pinon Canyon Maneuver Site Airfield

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

Dear Mr. Nichols:

This letter is intended to initiate Section 106 consultation on the proposed construction of helicopter tie down/cold refueling pads at the existing Pinon Canyon Maneuver Site (PCMS) airfield. This action is associated with the stationing of a Combat Aviation Brigade (CAB) at Fort Carson. Fort Carson initiated Section 106 consultation on the expansion and construction activities planned for Butts Army Airfield (BAAF) in August 2010. At that time no construction activities were planned for PCMS. Recently, however, the scope was altered to include the above-mentioned helicopter support structures. As such, Fort Carson is initiating a supplemental Section 106 consultation for this specific project. The Fort Carson Cultural Resources Manager (CRM) has determined that the subject action constitutes an undertaking in accordance with Section 106 [36 CFR 800.16(y)] of the National Historic Preservation Act (NHPA).

Fort Carson's Cultural Resources Management Program (CRMP) personnel have completed review of this undertaking. The Area of Potential Effects (APE) for this project was established in accordance with 36 CFR 800.16[d], and incorporates a 400 foot buffer around the southern and central portion of the airfield. The Fort Carson CRM proposes a determination of "no historic properties affected" in accordance with Section 106 (36 CFR 800.4(d)(1)) of the NHPA for the actions necessary to complete this undertaking. Comments regarding this undertaking should be received by Fort Carson no later than 30 days from receipt of this letter. Please note that comments submitted via email are acceptable and are included in our administrative record in the same manner as written correspondence.

Should potential impacts to historic properties be identified in the future due to a change in the submitted scope of work and/or proposed location, or should activities be 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 phase of the project, Fort Carson's Inadvertent Discovery of Archaeological Resources or Burials Standard Operating Procedures will be implemented and Section 106 consultation initiated.

Due to the nature and scope of this undertaking, in accordance with 36 CFR 800.2(c)(3), Fort Carson has identified the Colorado Council of Professional Archaeologists, Colorado Preservation, Inc., the Las Animas County Commissioners, Dr. Lawrence Loendorf, Not 1 More Acre!, the Otero County Commissioners, the Southern Colorado Environmental Council, and Loretta Martin, Director of the Louden-Henritze Archaeology Museum as additional interested parties for this action. The point of contact for this issue is Wayne Thomas, Chief, NEPA and Cultural Management Branch, (719) 526-1852 or by email at george.w.thomas16.civ@mail.mil.

Sincerely,

Carlos Rivero-deAguilar
Chief, Environmental Division

Signed: 1/20/12

Enclosures

HISTORY Colorado

RECEIVED FEB 07 2012

January 31, 2012

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: Initiation of Section 106 Consultation for Proposed Construction of Tie Down/Cold Refueling Pads at the Existing Pinon Canyon Maneuver Site (PCMS) Airfield (CHS #61211)

Dear Mr. Rivero-deAguilar,

Thank you for your correspondence dated January 20, 2012 (received by our office on January 25, 2012) regarding the subject project.

Following our review of the documentation provided, we concur that a finding of **no historic properties affected** is appropriate for the proposed project. This determination is based on the negative cultural resource surveys within the area of potential effects (APE) along with the previously noted disturbances where project components will be emplaced.

Please remember that 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 projects, 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,

for Edward C. Nichols
State Historic Preservation Officer
ECN/MAT

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 2, 2012

Department of the Army
DPW Environmental Division
ATTN: Wayne Thomas, Chief
NEPA and Cultural Management Branch
1626 Evans Street, BLDG 1219
Fort Carson, Colorado 80913-4362

RE: Section 106 Consultation for Proposed Construction of Tie Down/Cold Refueling Pads at Pinon Canyon Maneuver Site

Dear Mr. Thomas:

The Otero County Board of Commissioners in consultation with the Otero County Historic Preservation Board has reviewed the letter and report received from the Fort Carson/PCMS Cultural Resource Management staff concerning the proposed construction of Tie Down/Cold Refueling Pads at the Pinon Canyon Maneuver Site.

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.

We are concerned that this action is associated with the stationing of a Combat Aviation Brigade (CAB) at Fort Carson. The CAB proposal forces the Environmental Assessment (EA) outside of the scope. While we are not opposed to the Tie Down/Cold Refueling Pads at PCMS we are opposed to the CAB installation without the full evaluation of this proposal in an Environmental Impact Study (EIS). The installation of a CAB and associated maneuvers such as "Nap-of-the- Earth" flying, Contour Flight and Low Level Flight routes further adds conflicting issues not addressed in the EA and need to be addressed in an EIS. The EIS will identify complications and issues associated with the CAB and address mitigation to those issues.

(719)383-3000 P.O. Box 511 La Junta CO 81050-0511 (719)383-3090 Fax EQUAL HOUSING OPPORTUNITY *(719)383-2456 TDD*

In the attached letter addressed to Colonel McLaughlin dated January 30, 2012 the Otero County Commissioners respectfully requested a full EIS to be done as it relates to the CAB proposal.

At this time we do not want to address the CAB portion of this request, however we are not opposed to the Tie Down/Cold Refueling Pads at Pinon Canyon Maneuver Site.

Based on the above information, Otero County does not concur with the Army's finding of no adverse effect.

Sincerely,

Kevin K. Karney, Chair
Otero County Board of Commissioners

Keith Goodwin

Jim Baldwin

cc: Mark Tobias, Section 106 Compliance Officer, State Historic Preservation Office

Attachement

Bent County Board of County Commissioners

January 30, 2012

Colonel Robert McLaughlin, Garrison Commander
US Army Fort Carson
1626 Ellis Street, Building 118
Fort Carson, CO 80913

RE: Support of Las Animas County Request for PCMS EIS

The Bent County Board of Commissioners have received notice of the proposed **Fort Carson Aviation Brigade Stationing Implementation Environmental Assessment;** from the Las Animas County Commissioners. We are in full support of their request for a full environmental impact statement (EIS) to determine the precise effects of the aviation brigade upon the Pinon Canyon Maneuver Site (PCMS); due to the obvious and inevitable environment impacts that the aviation brigade will cause to the PCMS.

We also, seek your support of a site-specific EIS to support Las Animas County community in understanding the brigade's effects to PCMS. It seems that this analysis is warranted as being requested in order to comply with Section 1.6 of the PCMS Transformation Environmental Assessment, as it will establish the actual impacts to the PCMS and thereby enact National Environment Protection Act (NEPA) safeguards to prevent irreversible damage to terrain.

The Bent County Board of Commissioners requests your full support of the PCMS EIS; ensuring compliance to all rules and regulations regarding the use of the PCMS.

Thank you for your consideration on this matter.

Respectfully yours,

Bill Long, Chairman
BENT COUNTY BOARD OF COMMISSIONERS

Post Office Box 350 · Las Animas, Colorado 81054 · 719-456-1600 · Fax 719-456-0375

- Copy provided to DPW -

Came in mail yesterday

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

January 30, 2012

Colonel Robert McLaughlin, Garrison Commander
US Army Fort Carson
1626 Ellis Street, Building 118
Fort Carson, CO 80913

Dear Colonel McLaughlin,

Otero County has received a draft copy of the proposed **Fort Carson Aviation Brigade Stationing Implementation Environment Assessment**. Due to the obvious and inevitable environmental impacts that the aviation brigade will cause to the Pinon Canyon Maneuver Site (PCMS) landscape, the Otero County Board of Commissioners requests your support in commissioning a full Environmental Impact Statement (EIS) to determine the precise effects of the aviation brigade upon PCMS and surrounding area.

Your support of a site-specific EIS will assist this community in understanding the brigade's effects to PCMS. This Board believes that a PCMS-specific analysis is warranted in order to comply with Section 1.6 of the PCMS Transformation Environmental Assessment as it will establish the actual impacts to PCMS and thereby enact National Environmental Protection Act (NEPA) safeguards to prevent irreversible damage to terrain. Until further analysis is performed, the effects upon PCMS are more speculative than defined.

As Garrison Commander, charged with ensuring compliance to all rules and regulations regarding the use of PCMS, this Board requests your support of the suggested PCMS EIS. We look forward to receiving a formal Notice of Intent to perform the EIS. Thank you in advance for your consideration.

Sincerely,

Kevin K. Karney, Chairman

Keith Goodwin

Jim Baldwin

Cc: Senator, Mark Udall
Senator, Michael Bennet
Representative, Scott Tipton
Representative, Cory Gardner
Katherine Kerr, Advisory Council for Historic Preservation
Amy Pallante, State Historic Preservation Office

(719)383-3000 P.O. Box 511 La Junta CO 81050-0511 (719)383-3090 Fax EQUAL HOUSING OPPORTUNITY *(719)383-2456 TDD*

Las Animas County

Board of County Commissioners

Gary D. Hill	James Vigil	Mack Louden
Commissioner	Commissioner	Commissioner

March 20, 2012

Colonel Robert F. McLaughlin, Garrison Commander
4th Infantry Division Garrison Headquarters
Fort Carson, Colorado 80913

In Re: 2001 Letter of Agreement (LOA)
Pinon Canyon Military Operations Area

Dearest Colonel:

The Las Animas County Board of Commissioners hereby expresses its concern with regard to the above referenced Letter of Agreement (LOA) which allows for aircraft operation and maneuvers as low as 100 AGL in the Agreement-defined Pinon Canyon Military Operations Area (MOA), more fully described in LOA Attachments 1 & 2.

The 2001 LOA MOA is nearly identical to the defined operations area included in the Draft Fort Carson Aviation Brigade (CAB) Stationing Implementation Environmental Assessment (EA). The Board of Commissioners asserts that aircraft operation at 100 AGL is an outright invasion of private property rights; a heart-felt belief passionately expressed to you by numerous landowners and residents in the potential area of effect at a recent community meeting held in Trinidad.

There is added concern and question as to why the LOA (executed and effective June 24, 2001) was not previously disclosed, noted or referenced within the detail of the draft CAB EA.

The 2001 LOA does not contain sufficient safeguards to protect the rights of landowners so that they may freely enjoy their property. This Board requests that the 2001 LOA be revisited and appropriate low-level flight restrictions be formulated to protect the people residing around PCMS. Such would be a significant illustration of the Army's commitment to observe the rights and concerns of PCMS-area residents.

Inserting safeguards into the 2001 LOA would further serve as a demonstration of the Army's intent to redefine the PCMS MOA so CAB maneuvers (Nap of the Earth, Contour Flight and Low Level flight) are not implemented above the private and public land sectors of Las Animas, Huerfano and Otero counties.

200 E. First St. Room 110, Trinidad, Colorado 81082 Phone (719)845-2568 Fax (719) 845-2598

As expressed repeatedly by various interest groups, and echoed by the Board of Commissioners, it is felt that there is sufficient training area above the PCMS to carry out CAB maneuvers within its confines so as not to effect or infringe upon the rights of those owning property or living in the vicinity of the PCMS.

In addition, the Board requests the opportunity to discuss the proposed new Route Hawk flight path so residents can be assured that the adopted air route does not impede upon the existent agricultural industry in the present flight zone between PCMS and Fort Carson.

In summary, the Las Animas County Board of Commissioners is committed to pursuing the protection of private property rights of those landowners and residents living near the PCMS so low-level flight operations do not impact our way of life any more than the sheer existence of the maneuver site. The Board asserts that flights as low as 100 AGL causes impediment to the comfortable use of private property and has a direct effect to quality of life, land, water and wildlife. Impinging upon the rights of those affected by the existence of PCMS is not an option to the residents.

We hope that Fort Carson will consider the concerns of Las Animas, Huerfano, and Otero county landowners and citizens as CAB operations and maneuvers (in the fashion proposed in the Draft Fort Carson Aviation Brigade Stationing Implementation EA) will have a dramatic effect upon residents and their way of life.

The Board awaits your prompt response.

Respectfully,
THE LAS ANIMAS COUNTY BOARD OF COMMISSIONERS

Gary D. Hill, Commissioner

James Vigil, Commissioner

Mack Louden, Commissioner

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT CARSON
1626 ELLIS STREET, SUITE 200
FORT CARSON, CO 80913

REPLY TO
ATTENTION OF

Office of the Garrison Commander 23 April 2012

Las Animas County Board of Commissioners
200 E. First Street
Trinidad, CO 81082

Dear Commissioners,

Thank you for your comments about the Letter of Agreement (LOA) dated June 24, 2001. The LOA documents how the Denver Center, Fort Carson and the Tactical Fighter Wings will coordinate use of the Military Operations Area (MOA) in the vicinity of Piñon Canyon Maneuver Site (PCMS). The LOA also establishes procedures for matters such as airspace coordination, entry procedures and radio procedures.

The PCMS MOA is not under the control of the Army or Fort Carson. The Federal Aviation Administration (FAA) is the agency that designates and establishes a MOA. FAA Denver Center is the controlling agency of the PCMS MOA. Fort Carson manages the MOA, meaning that when an appropriate agency wants to activate the MOA they contact Butts Army Airfield (BAAF). The MOA was designated and established as permanent with an effective date of March 13, 1986. Fort Carson is not seeking that the FAA make any additions and modifications to existing airspace designations.

Regarding the reference to "100 feet AGL," which appears within the MOA. That reflects the FAA's designation of the boundaries of the MOA. It is not an expression of the Army's intent to regularly fly at 100 feet over the private property within portions of the MOA. The Army does not propose to conduct "nap of the earth" flights over private property. We strive to "fly neighborly" and will be responsive to concerns of private property owners, and we will not infringe upon their property rights. During the first round of public comments for the implementation of stationing the Combat Aviation Brigade, we made many responsive comments, clarifications and changes which will soon be made available for further public comment.

Army aviators must follow a variety of laws and regulations to ensure their own safety, the safety of other aviators, and the safety of the general public, as well as to minimize annoyance and infringement of a property owner's enjoyment of his or her own land. Army helicopter pilots must follow Federal Aviation Regulations (FAR), to include adherence to certain minimum safe altitude requirements when appropriate and applicable. In addition to following these FAA rules, Army aviators stationed at Fort Carson also follow the requirements of Army Regulation 95-1, Flight Regulations, and Fort Carson Regulation 95-1, Local Flying Rules and Procedures. The latter regulation provides that Army helicopters maintain a minimum slant distance of ½ nautical mile

(over three thousand feet) away from persons, buildings, animals, and manmade structures at all times.

I appreciate your interest and concerns on this issue. My staff and I will continue to assist clarifying any further concerns of the Board.

Sincerely,

Robert F. McLaughlin
Colonel, U.S. Army
Garrison Commander

This Page Intentionally Left Blank.

Appendix C

Public Comments on the January 2012 Draft EA and Army Responses

This Page Intentionally Left Blank.

Fort Carson Combat Aviation Brigade

Stationing Implementation EA

Public Comments on the January 2012 Draft EA

ID: 1	**Date:** 1/5/12	**Name:** Ellen V. Moore	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
To Whom It May Concern, We in Nederland's Mountain Forum for Peace have been working for the preservation of the grasslands and prairies of southern Colorado and against expansion of Fort Carson, ever since we learned about plans many years ago, Though John Salazar and others have waged a strong effort at preservation and held off such development despite continuous efforts by the army to create a huge live fire site near precious dinosaur tracks and ruins of homesteads, the brigade is being supported, alas, even by sometimes progressives like Mark Udall. Now we learn that plans are afoot for an air brigade to test and use drones, and that will certainly degrade this priceless resource and increase the likelihood of further drone use by the USA worldwide. No. The citizens of Colorado have spoken. Thoughtful peace activists have studied the matter in depth and are raising the alarm as Eisenhower did about the predations of the military-industrial complex and its powerful over-reach. No. No to drones. No to further military exploitation of Colorado.			Thank you for your comments. We acknowledge that there are precious natural and cultural resources on and near Fort Carson and Piñon Canyon Maneuver Site (PCMS). The Army takes its stewardship responsibilities in these areas very seriously. The proposed action does not include expanding the areas in which live-fire training is permitted. Live-fire is limited to designated ranges on the Installation. Live-fire training does not impact known dinosaur tracks and homestead structures at PCMS. The use of the term UAS in this document is intended to generally describe unmanned aerial systems, sometimes also referred to as unmanned aircraft systems (UASs), UAVs, TUAVs, or “drones”. As clarified in Sections 2.3.2 and 4.11.2.2, the Combat Aviation Brigade (CAB) that is being stationed at Fort Carson does not include an UAS company. Section 4.11.1.1 has also been changed to reflect the fact that Fort Carson currently has four reconnaissance UASs, with no live-fire capability: the Shadow, Raven, Puma, and Silver Fox. The stationing of additional UASs to Fort Carson is not a foreseeable action.	

No, because if you build them they will be used. History bears this out. Yes, to peaceful development: schools, organic farms, solar arrays, windmills, local fully-funded clinics, parks,,, Ellen V. Moore for Nederland' MFP.				
ID: 2	**Date:** 1/16/12	**Name:** Katherine Yocam	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
PCEOC Pinon Canyon Expansion Opposition Coalition Whereas I am a private property owner in _____ County, in the State of _____, United States, I have the right to use my private property, including that airspace which is super-adjacent to that property insofar as projected and potential use dictates and to a level not to exceed 500 feet above said private property; Whereas alternative energy production and U.S. energy independence are essential to our national security and hold great potential for our regional economic development; Whereas it is my desire to potentially utilize my property for, but not limited to, power generation through means including wind and solar; Whereas present technology requires a minimum unimpeded airspace for wind generation towers; Whereas potential for new technology will allow for even larger wind generators and others as yet unknown means to generate powers from natural sources; Whereas power distribution also requires unimpeded airspace;			The Army acknowledges the many commenters concerned with potential infringement of their private property rights. We have revised Section 4.11 to emphasize the fact that the proposed action would not result in a request to the Federal Aviation Administration (FAA) for any additions to or modifications of current FAA airspace designations on or near Fort Carson or PCMS. In other words, under the proposed action, CAB helicopters would utilize existing airspace in the same manner in which it is already utilized by helicopters currently assigned to Fort Carson. CAB stationing implementation would not impact the rights of private property landowners. Army helicopters have been training in existing airspace for many years. The PCMS Military Operations Area (MOA), for example, was designated and established as permanent with an effective date of March 13, 1986. FAA is the agency that designates and establishes a MOA. FAA Denver Center is the controlling agency of the PCMS MOA. Fort Carson manages the MOA, meaning that when an appropriate agency wants to activate the MOA they contact BAAF. Section 4.11.2.2 has been revised to clarify that implementation of the proposed action will not include any request to the FAA for additions and/or modifications to existing airspace designations. The “private property rights declaration” submitted by several commenters purports to address the concern that any flight below 500 feet from the surface would violate private property rights and	

Whereas the value of the development of these resources continues to appreciate; Whereas trespass on super-adjacent private property airspace is akin to trespass on surface private property and would constitute a taking of private property; Therefore I am declaring and making known my constitutional right to the private property airspace above my property and assert a boundary exists to all others so as to allow for those uses I have determined or any other future use that I determine may require it. I hereby place the Department of Defense, which is to include, but not be limited to, the Army and its private civilian contractors on notice that I am asserting my property rights to use the airspace above my property to a given altitude not to exceed 500 feet above the highest point on my property. I am also therefore restricting use by them or anyone else of airspace over my property to a level not lower than 500 feet above the highest point on my property. Let it be known I will energetically defend this property assertion from any that would challenge it by direct trespass or otherwise, and thus attempt to take away my private property rights as a United States citizen.	constitutes a "trespass" against private property. However, Federal courts have consistently and unequivocally rejected the notion that an occasional or incidental flight over private land constitutes an unlawful "taking" of land or any other violation of private property rights. In addition, Federal laws and regulations specifically allow helicopter flight at less than 500 feet from the surface. Federal Aviation Regulations (FAR) Section 91.119 generally prescribes certain minimum altitude requirements for all aircraft – for example, a minimum of 1,000 feet above the highest obstacle in "congested" areas and 500 feet over the surface in "other than congested areas". However, 91.119(d) states that "[a] helicopter may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section, provided each person operating the helicopter complies with any routes or altitudes specifically prescribed for helicopters by the FAA." Army aviators must follow a variety of laws and regulations to ensure their own safety, the safety of other aviators, and the safety of the general public, as well as to minimize annoyance and infringement of a property owner's enjoyment of his or her own land. As noted above, Army helicopter pilots must follow FAR, to include adherence to certain minimum safe altitude requirements when appropriate and applicable. In addition to following these FAA rules, Army aviators stationed at Fort Carson also follow the requirements of Army Regulation 95-1, *Flight Regulations*, and Fort Carson Regulation 95-1, *Local Flying Rules and Procedures*. The latter regulation provides that Army helicopters maintain a minimum slant distance of ½ nautical mile away from persons, buildings, animals, and manmade structures at all times. Army helicopters, including CAB helicopters, would continue operating in accordance with FAA and Army regulations regarding minimum safe altitudes and avoidance of persons, buildings, animals, and manmade structures. Route Hawk, Fort Carson's off-post low-level flight route, was established by Fort Carson in the early 1990s and complies with FAA

			guidelines for operating helicopters. It provides more limited low-level route options than historically as a second off-post low-level flight route, Route Eagle, was removed from use in the late 1990s. Route Hawk is re-evaluated annually to determine if any adjustments are needed. Between 2006 and 2011, no adjustments were made; however, per Section 4.4.2.2.4, the Installation has initiated actions to formally remove the H7 through H8 leg as a result of comments received on the Draft Environmental Assessment (EA). Fort Carson will consider other requests for adjustments in their annual re-evaluation. Two of the factors that have historically influenced route adjustments are residential development and utility lines. Helicopters flying Route Hawk must adhere to FAA and Fort Carson regulations, including the above-mentioned minimum slant distance of ½ nautical mile away from persons, buildings, animals, and manmade structures at all times. The Army acknowledges and supports sustainable energy initiatives, such as the Fort Carson Net Zero initiative described in Section 4.12.2.3 (cumulative impacts). The Army has no intent to impede or otherwise impact sustainable energy projects by private landowners. In order to avoid impacts to aviation, landowners wishing to construct wind turbines, other sustainable energy facilities, or any other structure that may affect navigable airspace (e.g., structure in excess of 200 feet in height) must follow the FAA's "Obstruction Evaluation/Airport Airspace Analysis (OE/AAA)" procedures, which are codified in Title 14 CFR Part 77.9 and 77.13.
ID: 3	**Date:** 1/17/12	**Name:** Jay Pearce	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
STILL NOT 4 SALE Private property rights and airspace declaration Whereas I am a private property owner in _____ County, in the State of _____, United States, I have the right to use my private			Thank you for making us aware of your concerns. Please see the response to comment #2.	

property, including that airspace which is super-adjacent to that property insofar as projected and potential use dictates and to a level not to exceed 500 feet above said private property; Whereas alternative energy production and U.S. energy independence are essential to our national security and hold great potential for our regional economic development; Whereas it is my desire to potentially utilize my property for, but not limited to, power generation through means including wind and solar; Whereas present technology requires a minimum unimpeded airspace for wind generation towers; Whereas potential for new technology will allow for even larger wind generators and others as yet unknown means to generate powers from natural sources; Whereas power distribution also requires unimpeded airspace; Whereas the value of the development of these resources continues to appreciate; Whereas trespass on super-adjacent private property airspace is akin to trespass on surface private property and would constitute a taking of private property; Therefore I am declaring and making known my constitutional right to the private property airspace above my property and assert a boundary exists to all others so as to allow for those uses I have determined or any other future use that I determine may require it. I hereby place the Department of Defense, which is to include, but not be limited to, the Army and its private civilian contractors on	

notice that I am asserting my property rights to use the airspace above my property to a given altitude not to exceed 500 feet above the highest point on my property. I am also therefore restricting use by them or anyone else of airspace over my property to a level not lower than 500 feet above the highest point on my property. Let it be known I will energetically defend this property assertion from any that would challenge it by direct trespass or otherwise, and thus attempt to take away my private property rights as a United States citizen.				
ID: 4	**Date:** 1/17/12	**Name:** Cynthia B. Plosin	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 5	**Date:** 1/17/12	**Name:** Carol Combes	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #3.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 6	**Date:** 1/17/12	**Name:** Mars Combes	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #3.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 7	**Date:** 1/18/12	**Name:** Mike Pearce	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #3.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 8	**Date:** 1/18/12	**Name:** Frank Sumpter	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #3.			Thank you for making us aware of your concerns. Please see the	

			response to comment #2.	
ID: 9	**Date:** 1/18/12	**Name:** Nancy F. Jackson	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 10	**Date:** 1/18/12	**Name:** Amanda & Richard Thompson	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 11	**Date:** 1/18/12	**Name:** K. Bernhardt	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 12	**Date:** 1/18/12	**Name:** Deborah Bernhardt	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 13	**Date:** 1/18/12	**Name:** Paula Ozzello, Chairperson Southern Colorado Environmental Council	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
Garrison Commander McLaughlin and Dan: In reviewing and researching the content of the Draft EA on the stationing of the Combat Aviation Brigade to Fort Carson Implementation the Southern Colorado Environmental Council have discovered some sections we do have concern with and would like the 4th Infantry Division, G3 Aviation ISME G3 Air to consider revising the 95-1 regulations to include the following:			Thank you for your comments. The Army has considered your recommendation that CAB aircraft fly at a minimum altitude of 1,750 feet over private property in the PCMS MOA. Though Army helicopters would often fly above minimum altitudes, the proposed minimum altitude of 1,750 feet would unduly limit Army training and result in failure to meet Army training mission requirements. Existing minimum limits described below, including the FAA regulatory requirements, provide measures to ensure safety and	

When flying over the private sector of the Military Operations Area shown in Figure 4.11-2, Pinon Canyon Maneuver Site MOA AGL of 1750 feet to 2,000 feet be maintained at all times. Our rationale for this is that there is adequate air space over Pinon Canyon Maneuver Site and adjacent federal land to do all necessary flight training in regards to: Nap of the Earth Flight Contour Flight Low level Flight We are not asking that these very important training maneuvers are prohibited in the MOA completely; but to prohibit them over the private sector that is included in the MOA. Frist reason for this is protection of the private property rights of our agricultural industry. We ask this to be done so that there would be minimal to none adverse effect to the agriculture industry that is located in the MOA region. By maintaining an altitude of 1750 feet or higher the noise factor and abrupt intrusion into the airspace over the ranches and farms, of these three types of flight training, the domestic livestock herds would not be impacted as greatly and mostly especially in calving season so that potential risks of mother's milk drying up is less possible to happen and birthing process does not have extra external stress unnecessarily. Also it is just much better to fly friendly over our region's ranches and farms and it would prevent alot of negative push back on the CAB maneuver training in the MOA area of PCMS. In regards to Route Hawk, we ask that the one lane that is designated in the EA for Nap of the Earth Flight be removed and flights between Fort Carson to PCMS be flown at the regular altitude of 1750 ft. We base this revision on the concern for public safety for residents living between Fort Carson and PCMS. There is once again more then enough air space on the maneuver site	minimize noise annoyance. Fort Carson continues to maintain a noise complaint hotline and will continue to address concerns raised through this hotline. Fort Carson is committed to maintaining a "Fly Neighborly" relationship with our community. Army aviators must follow a variety of laws and regulations to ensure their own safety, the safety of other aviators, and the safety of the general public, as well as to minimize annoyance and infringement of a property owner's enjoyment of his or her own land. Army helicopter pilots must follow FAR, to include adherence to certain minimum safe altitude requirements when appropriate and applicable. In addition to following these FAA rules, Army aviators stationed at Fort Carson also follow the requirements of Army Regulation 95-1, *Flight Regulations*, and Fort Carson Regulation 95-1, *Local Flying Rules and Procedures*. The latter regulation provides that Army helicopters maintain a minimum slant distance of ½ nautical mile away from persons, buildings, animals, and manmade structures at all times. Army helicopters, including CAB helicopters, would continue operating in accordance with FAA and Army regulations regarding minimum safe altitudes and avoidance of persons, buildings, animals, and manmade structures. Section 4.11.2.2 has been revised to clarify that implementation of the proposed action would not include any request to the FAA for additions and/or modifications to existing airspace designations. There is no foreseeable plan by the Army to add additional Nap of the Earth (NOE), contour, or low-level flight routes over private property in southeastern Colorado that would be used by CAB aircraft. Route Hawk is a low-level flight route, not a NOE flight route. Section 4.4.2.2.4 has been updated to reflect this correction. Section 4.11.1.1 has also been updated to note that the Army does not have any NOE flight routes over private property in southeastern Colorado. The Army must ensure our Soldiers are provided realistic training. Route Hawk provides realistic low-level flight training for our Soldiers. As training is

and adjacent federal land to train our military men and women in the nap of the earth flight, contour flight and low level flight. Furthermore, the PCMS has been prepared with power lines being buried so that the safety factor for our troops is better. The route from Fort Carson to PCMS does have extensive networks of power lines above ground and also communication tours that are on the landscape between the two military facilities, not to mention the black hills. 50 feet altitude on route hawk would just be far to risky for the general public and our military men and women.	conducted, safety is of paramount concern for the Army, both for our Soldiers, their Families, and the public. Section 4.11.1.1 incorporates by reference the 2011 *CAB Stationing Programmatic Environmental Impact Statement (PEIS)*, which provides further details regarding the Installation's Safety Program, to include notation of the safety policies contained in Fort Carson Regulation 95-1. As stated in Section 4.11.2.2, relevant FAA and Army regulations, which include safety requirements, would also be followed when CAB aircraft train on Route Hawk. As noted in the response to comment #2, Fort Carson considers requests for adjustment to Route Hawk in their annual re-evaluation and, in response to comments received on the Draft EA, the Installation has initiated actions to formally remove the H7 to H8 segment of the route.
We do see this as a way of finding common ground on the Combat Aviation Brigrade's use of our PCMS and region in their training needs mission and our mission to protect our people which do include their private rights in the air space above their ranches and farms. Flying friendly works a whole lot better then constant negative media coverage and push back in our region. We are entering a new phase of maneuver training at PCMS, let us make it happen with a good start of working together and create a viable MOA atmosphere that allows our agricultural industry to coexist with our Pinon Canyon Maneuver Site. Please review this and share with us what we need to further do to continue this process in the works to seeking these revisions to the Fort Carson 95-1 Aviation Regulations. Thank you very much for your attention in this matter and for working with us on this.	Please note that the MOA was established by the FAA for all military air operations. The FAA controls the size of the MOA and the flight rules within it.

ID: 14	**Date:** 1/18/12	**Name:** Linda Perry	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the	

			response to comment #2.	
ID: 15	**Date:** 1/18/12	**Name:** Kenneth R. Arko	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 16	**Date:** 1/18/12	**Name:** Patricia Keek	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 17	**Date:** 1/18/12	**Name:** Kerry Appel	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 18	**Date:** 1/18/12	**Name:** Gary Saddoris	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #3.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 19	**Date:** 1/18/12	**Name:** Phil Ballard	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #3.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 20	**Date:** 1/18/12	**Name:** Frankie Dee Pearce	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #3.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 21	**Date:** 1/18/12	**Name:** Jack Pearce	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #3.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 22	**Date:** 1/18/12	**Name:** Lee V. Hollingsworth	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #3.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 23	**Date:** 1/19/12	**Name:** Lester W. Jackson	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 24	**Date:** 1/19/12	**Name:** Thomas Perry	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 25	**Date:** 1/19/12	**Name:** Joan Sandlin	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 26	**Date:** 1/19/12	**Name:** Barbara Richardson	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 27	**Date:** 1/19/12	**Name:** Howard R. Brace	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the	

			response to comment #2.	
ID: 28	**Date:** 1/19/12	**Name:** Ray Martin	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 29	**Date:** 1/19/12	**Name:** Bruce Nittler	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 30	**Date:** 1/19/12	**Name:** Rose Broce	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 31	**Date:** 1/19/12	**Name:** Spike Burrows	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 32	**Date:** 1/20/12	**Name:** Edwin V. Spangler	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 33	**Date:** 1/20/12	**Name:** Nicolas Talmes (name partially illegible)	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 34	**Date:** 1/20/12	**Name:** Kelly McGuire	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 35	**Date:** 1/20/12	**Name:** Howard C. Sumpter	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 36	**Date:** 1/20/12	**Name:** Loretta Goode	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 37	**Date:** 1/20/12	**Name:** Leslie H. White	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 38	**Date:** 1/20/12	**Name:** Mary Ellen White	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 39	**Date:** 1/20/12	**Name:** Marilyn Leuszler	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 40	**Date:** 1/20/12	**Name:** Jerry Rice	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the	

			response to comment #2.	
ID: 41	**Date:** 1/20/12	**Name:** Gerald Quartiero	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 42	**Date:** 1/20/12	**Name:** Shelley R. Quartiero	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 43	**Date:** 1/20/12	**Name:** J. Scott Davis	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 44	**Date:** 1/20/12	**Name:** Judith A. Goode	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 45	**Date:** 1/20/12	**Name:** Bud Littlewood	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 46	**Date:** 1/20/12	**Name:** Rhual R. Lusk	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 47	**Date:** 1/21/12	**Name:** Rachel Snyder	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 48	**Date:** 1/21/12	**Name:** Kay McFairidge	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 49	**Date:** 1/21/12	**Name:** Gene Yocam	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 50	**Date:** 1/22/12	**Name:** Cheryl Lee Carlson	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 51	**Date:** 1/22/12	**Name:** JoAnn Nieman	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 52	**Date:** 1/22/12	**Name:** Douglas D. Holdread	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 53	**Date:** 1/22/12	**Name:** Carol Vander Wall	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 54	**Date:** 1/22/12	**Name:** Edna F. Jolly	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 55	**Date:** 1/22/12	**Name:** Thomas W. Jolly	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 56	**Date:** 1/22/12	**Name:** Jeffrey M. Jolly	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 57	**Date:** 1/22/12	**Name:** Stanley White	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 58	**Date:** 1/22/12	**Name:** Dee White	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 59	**Date:** 1/22/12	**Name:** Frank Coppa	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the	

			response to comment #2.	
ID: 60	**Date:** 1/22/12	**Name:** Ashley Book	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2	
ID: 61	**Date:** 1/22/12	**Name:** Cheryl L. Harwig	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 62	**Date:** 1/22/12	**Name:** Darryl T. Harwig	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 63	**Date:** 1/22/12	**Name:** Rosella Orr	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 64	**Date:** 1/22/12	**Name:** Hallie A. Homerding	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 65	**Date:** 1/22/12	**Name:** Jill Davis Homerding	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 66	**Date:** 1/22/12	**Name:** M.E. Broce	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 67	**Date:** 1/22/12	**Name:** Brett Balenseifen	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 68	**Date:** 1/22/12	**Name:** Nancy Balenseifen	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 69	**Date:** 1/22/12	**Name:** Debra M. Foster	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 70	**Date:** 1/22/12	**Name:** Kenneth D. Foster	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 71	**Date:** 1/23/12	**Name:** Name Illegible	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 72	**Date:** 1/23/12	**Name:** Wayne Clemmensen	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the	

			response to comment #2.	
ID: 73	**Date:** 1/23/12	**Name:** Lauren Swain Mind's Eye Productions	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
Re: U.S. Army Announces Availability of a Draft Environmental Assessment and Requests Comments on Proposed Fort Carson Heavy Combat Aviation Brigade Stationing with Training and Maneuvering at Piñon Canyon Maneuver Site, Colorado. I am opposed to the expense and extended land and air use that would result from the expansion of the military presence in Southern Colorado. There is a great deal of local and national opposition to this move. Colorado already provides a significant portion of our land & air resources to the US military. We should not be required to carry this additional burden of noise, pollution, wildlife impacts and other negative social and environmental impacts.			Thank you for your comment. As noted in Section 1.1, this proposed action is for implementation alternatives in response to the CAB stationing decision already made by Headquarters, Department of the Army. Environmental analysis of the stationing action is contained in the 2011 *CAB Stationing PEIS*, as noted in Section 1.3. The Army takes very seriously the potential environmental impacts of proposed CAB stationing implementation, hence the development and public availability of this EA. One of the purposes of the National Environmental Policy Act (NEPA) process is to allow the public to share its concerns and we appreciate your comments.	
ID: 74	**Date:** 1/23/12	**Name:** Joel Smith	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
To Whom it may concern: Although I am not a property owner in Las Animas county, I live and work in the area that will be affected by the low level training flights. I strongly oppose this taking of private property rights! The military has plenty of land and “airspace” already. They don’t need anymore. The elected officials take an oath to defend the constitution, which includes the right to private property. They need to do their job and put a stop to this theft.			Thank you for your comment. With respect to low-level training, private property rights, and airspace, please see the response to comment #2. The proposed action does not include expansion of Army lands nor additional airspace.	

Sincerely, Joel Smith				
ID: 75	**Date:** 1/23/12	**Name:** Chesna Smith	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
To Whom It May Concern: Although I am not a property owner in Las Animas County, I have lived and worked in the area for many years. The low level training flights will affect me in a negative way and I am strongly opposed to them. Sincerely, Chesna Smith			Thank you for your comments. The Army recognizes that there would be impacts resulting from implementing the stationing decision. However, these noise events would be infrequent and transitory. Also, Fort Carson Regulation 95-1 prescribes specific noise abatement requirements for aviation personnel. Fort Carson follows the FAA's regulations, and has a noise abatement policy to minimize impacts to residential areas and livestock. Fort Carson strives to be an engaged member of the community and tries to minimize the impacts of military training whenever possible.	
ID: 76	**Date:** 1/23/12	**Name:** Tim Roberts	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 77	**Date:** 1/23/12	**Name:** Annette Roberts	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 78	**Date:** 1/23/12	**Name:** Steve Wooten	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 79	**Date:** 1/23/12	**Name:** Ella Biber	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta

Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 80	**Date:** 1/23/12	**Name:** Deven McFarland	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 81	**Date:** 1/23/12	**Name:** Nora Gilstrap	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 82	**Date:** 1/23/12	**Name:** Bobbi Quick	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 83	**Date:** 1/23/12	**Name:** Norman C. Montee	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 84	**Date:** 1/23/12	**Name:** Monica Johnson	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 85	**Date:** 1/23/12	**Name:** Lori B. Montee	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 86	**Date:** 1/23/12	**Name:** Florence Jackson	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 87	**Date:** 1/23/12	**Name:** Everett Jackson Jr.	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 88	**Date:** 1/23/12	**Name:** Harlan Leuszler	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 89	**Date:** 1/23/12	**Name:** Penni Moltrer	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 90	**Date:** 1/23/12	**Name:** Herman E. Moltrer	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 91	**Date:** 1/23/12	**Name:** Cameron Burk	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 92	**Date:** 1/23/12	**Name:** Jake Myois	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the	

			response to comment #2.	
ID: 93	**Date:** 1/23/12	**Name:** Catherine Mullins	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 94	**Date:** 1/23/12	**Name:** Adam & Loudt Livestock	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 95	**Date:** 1/23/12	**Name:** Larry E. Gilstrap	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 96	**Date:** 1/23/12	**Name:** Betty Williams	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 97	**Date:** 1/23/12	**Name:** Karen Winford	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 98	**Date:** 1/23/12	**Name:** Jerry Winford Waldroop Ranch Inc. (name partially illegible)	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 99	**Date:** 1/23/12	**Name:** Abel Benavidez	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #3.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 100	**Date:** 1/23/12	**Name:** Judith R. Benavidez	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #3.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 101	**Date:** 1/23/12	**Name:** Gianni & Melissa Amato	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 102	**Date:** 1/23/12	**Name:** Len Robertson	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 103	**Date:** 1/23/12	**Name:** Arita Robertson	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 104	**Date:** 1/23/12	**Name:** James Turner	**Method:** Letter	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 105	**Date:** 1/23/12	**Name:** Mary W. Hill	**Method:** Public Comment Form	**Other Notes:** Submitted at public meeting – Trinidad
Comment			**Response**	
Giving this would change the landscape of PCMS and was not			Thank you for your comment. The 2009 *Fort Carson Grow the Army*	

addressed in the original EIS. Who decided and why was it decided to do an EA and not EIS.	*Final EIS* (FEIS) anticipated the potential stationing of a CAB to Fort Carson; therefore, environmental impacts of CAB stationing implementation alternatives were analyzed within that EIS. As noted in Section 1.3, this 2009 analysis is incorporated by reference into this EA. The 2009 analysis was re-visited during the 2011 *CAB Stationing PEIS* process. During the 2011 PEIS process, the Army carefully reviewed the 2009 analysis. Any changes in environmental factors or Army actions that affected or would affect CAB stationing were further analyzed. Both of these EIS documents concluded that there were some significant impacts to environmental resources but mitigations would reduce the impacts to less than significant. When significant impacts are determined to be mitigable to less than significant, the Army is allowed to issue a Finding of No Significant Impact (FNSI) after an EA process as long as the appropriate mitigations are clearly identified within the FNSI (see Code of Federal Regulations, Title 32, Section 651.15(c)). Those mitigations must be planned for, funded, and accomplished as the selected alternative is implemented. Therefore, the Army has determined that an EA for this action is appropriate. As the Army incorporates new information into the on-going analysis, to include any new information that could arise as a result of the 30-day comment period for the Final EA, a determination would be made as to the level of significance for each Valued Environmental Component (VEC). The summary of the level of significance of impacts for each VEC is contained in Table 3.2-1. As noted in Section 1.6, an EA results in either a FNSI or a Notice of Intent to prepare an EIS. As part of the decision-making process, the Garrison Commander will consider all relevant environmental information and stakeholder issues of concerned raised as part of this EA process.

ID: 106	**Date:** 1/23/12	**Name:** LaDonna Hutton	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 107	**Date:** 1/23/12	**Name:** Juliette Mondot	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 108	**Date:** 1/23/12	**Name:** Eldon Stoker	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 109	**Date:** 1/23/12	**Name:** Onorina Vedovi-Rinker	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 110	**Date:** 1/23/12	**Name:** Abel Benavidez	**Method:** Transcript	**Other Notes:** Transcript – Trinidad
Comment			**Response**	
And I would like to say thank you to our men in uniform and also the veterans who have allowed us to be here tonight, we're -- -- we're free. And I want to say something here. Our battle is not with the soldiers, definitely not, but, you know, we're concerned about, number one, the environment. I live four miles south of that fence, my chickens are going to quit laying, my cow won't give any milk. I don't have any chickens and I don't milk cows, by the way. Anyway, folks, if they start flying much lower than at 5,000 foot level we're going to be disturbed, us, the wildlife, and the overall environment. Now, most of you people are not -- are a lot younger than I was. During World War II in Pueblo and La Junta there were training bases, one afternoon -- one morning, about 10:30 in the morning, there was a flight of B-24s going over -- over where we live, and			Thank you for making us aware of your concerns. Please see the response to comment #13.	

they were flying at -- they had to fly at 5,200 feet, and one of the planes stuck a wing into the fuselage of the other plane, well, there was 18 of these courageous airmen that got -- that got killed (indicating). Now, I'm not saying that our helicopters are going to crash, God willing they're not, but this nap-of-the-earth thing -- and I'm not a pilot, but I have flown in helicopters that were flying nap-of-the-earth, now, it's kind of scary when you're a passenger -- but it's dangerous, but it's necessary, and I just hope that they won't come along and say -- and I say that -- the military -- they say, "Okay, hey, we -- to save all that fuel coming from Fort Carson to Piñon Canyon and we can fly nap-of-the-earth all the way from Fort Carson to Piñon Canyon," because, you know, in my little mind that would be the practical way to do it as far as saving fuel and everything else, but it's not the right way for the environment nor the people that live there (indicating). And I just hope that you folks will take these things into consideration and don't strike out the milk cows and the eggs because I won't have no chickens again. Anyway, thank you for coming down and thank you for listening to us because, you know, this is part of the process and I hope it comes out so that everybody will be happy, we'll be protected, our rights, the0 environment will be protected, and our soldiers will be trained (indicating). Thank you for your time.	
ID: 111 **Date:** 1/23/12 **Name:** Joanne Nieman	**Method:** Transcript **Other Notes:** Transcript – Trinidad
Comment	**Response**
Some of us aren't as tall as others. I'm Joanne Nieman, N-i-e-m-a-n. Well, you know, I'm not thanking you for being here because, frankly, I think there are an awful lot of people whose lives have been -- some of them destroyed, some of them in the process of being destroyed, and some of them just completely aggravated to the point of insanity by all of this, and it goes on and on and on with no end in site; and people's land no longer has the value that it once had, it would be almost impossible to sell, because who -- you know, who's going to want to buy it? UNIDENTIFIED FEMALE SPEAKER: The Army.	Thank you for making us aware of your concerns. One of the purposes of the NEPA process is to allow the public to share its concerns and we appreciate your participation in this process.

MS. JOANNE NIEMAN: Look where -- su -- sure the Army, yes, but that's not what I meant. (Reviewed document.) And, so, my question is not, you know, what we can do to make it better while we have this helicopter brigade or any other brigade or branch of the Army, Navy, Air Force or whoever, and the question I0 have is why? Okay, I don't hear anyone in this country, except a few of us, discussing whether or not we should be conducting wars like this at all. You know, we -- we go to Iraq, we go to Afghanistan, it's got us nothing, absolutely nothing, except a lot of dead young men and women, and a lot of people in those countries -- hundreds of thousands of them dead or displaced and their lives ruined, their infrastructure ruined, nothing will ever be the same for them, and we do this how? Why? In order to promote the continuation of the miliary industrial complex or because we can't think straight and don't realize there are alternatives to this? Are we -- you know, I -- I -- I just don't get it, frankly. And in addition to that, right here in Piñon Canyon -- it's more than Piñon Canyon really, it's a huge area, I don't know how many square miles -- but the -- the things that -- that we -- well, you know, the degradation that we're talking about preventing is on all levels, it's business, it's human beings, it's the environment in general, the land, the air, the water, the animal life, everything, and if you think that the Army is going to be able to prevent -- degradation of those things it's -- it's very sweet of you to think that they will do that, but I don't see that happening, I don't see that that would ever even be considered, except in the sort of a circus let's make it look good and fluff it up a little bit. But the Army is not known for its sensitivity. That's not what it's here for and it's not accountable, it's -- it's a fourth branch of the government, but one for which has absolutely	

no accountability to the rest of us, but -- but gets hundreds and hundreds of billions of dollars of our tax money to keep doing what it's doing, and it's time we started to ask ourselves shouldn't we try to stop this somehow? You know, when I think about -- I have a lot of -- of sympathy for the ranchers here -- and not because I'm a rancher, but my grandfather raised and -- bred and raised Tennessee Walking Horses in Minnesota, and he didn't have -- he didn't have anything that would constitute a ranch, it wasn't that big I suppose -- I mean, 40 acres is not much -- but it was enough to do what he wanted to do with it, and I loved the horses and I loved the space and I loved what we did there and -- and I was a very happy person when I was in that place, and, so, you know, I -- I think of what's happening here to these people and how -- how -- what a terrible, bitter and lengthy fight, which is not going to be over probably in my lifetime, and I think, my God, you know, no one cares, and especially not the military people sitting here today, or anywhere today. You got the -- you got your job to do and that's all you care about. It's like a corporation, okay, the corporation job is to make money for the shareholders, period, nothing else. It doesn't matter who the corporation hurts, who the corporation walks over, who the corporation destroys or -- or what, what matters is that it's -- it's doing its job, it's doing its -- its statutory job by making money for the shareholders and that's all, and -- and the whole point of the military, its job is to learn to destroy things. Now, they can say that they're here to make peace, but that's bologna in kind terms. Actually, I am well-known for much more colorful language than that. And I -- you know, I understand why people want to protect the institution that supports them, I do. So I think we should all put our heads together -- and this is my	

Sunnybrook Farm moment -- and try to come up with a solution that makes sense for us and for the world without all of the destruction that we seem to be so -- you know, think is so much fun, you know. And -- and when I was looking at one of these reports, the -- the -- the idea here is that -- that they're training for Afghanistan, I mean, that's the only country that's mentioned, and, yet, we're supposed to be leaving Afghanistan, so it looks like we're not, probably not in the next century or two, because we -- we need centuries in order to bring those people to the1 form of government that we have, and they don't want it (indicating). So, you know -- so maybe we will attack China, maybe that's the plan, or Iran or whatever, and we don't -- you know, how many people are going to die attacking Iran? That will be fun. And China would be hundreds of thousands more. Maybe Switzerland. Anyway, I -- you know, I -- what I am suggesting here is that we go back to square one and -- and look upon everyone else in the world as another human being worthy of a life that they choose to live so long as they're not killing me, okay? And -- and, you -- you -- you know, the Army's no longer -- this whole attitude of get out there and kill them before they can come here and kill us is horseshit. They weren't even close, they're not close, they've never been close, so, you know, it -- it's pathetic and we need to do something else, and we need to leave the poor people -- ranches of this part of the state of Colorado to do their work and make -- make the money that they can make and enjoy themselves and be happy in their places like I was happy in my grandfather's place. Thank you.	
ID: 112 **Date:** 1/23/12 **Name:** Bill Sulzman	**Method:** Transcript **Other Notes:** Transcript – Trinidad
Comment	**Response**
Good to see a good turnout here. And I guess to start I would like to just give my own personal overview of this process, and this process for me goes back at least to five -- almost six years now to	Thank you for your comment.

when all this started, and all the hearings that have ensued, and each time I come to one of these I think of being part of kind of a paint-by-the-numbers thing. I see the lists back there, they look an awful lot like checklists, and the timelines always look a little bit inevitable like May this is all supposed to be done and they're supposed to be clearing dirt and pouring cement at Fort Carson and start up the factories that are going to make all these helicopters and killer drones, which I'll get to in just a minute (indicating).	
And the other thing that I always think, and I've seen this, sometimes I've made a comment or raised a question in either a scoping hearing or a draft hearing and, then, I see -- I get some kind of line in the final that, unfortunately, I've helped do the fine-tuning, I helped touch up paint-by-the-numbers photo, and, so, it always gives me a little pause to even take part in this, but, then, I look out at a lot of people here, nice, comfortable seats, good microphone, and, so, we can only hope that in spite of how rigged this looks that what we're doing here and what we're doing when we go home and what others is doing is going -- and up to now it has made a difference in that five-year process this urge to go on with a huge land grab down here has been stymied, but the people here know that it's still not time to let the guard down so that's why we're -- we're taking part (indicating).	One of the purposes of the NEPA process is to allow the public to share its concerns. The Army follows the intent of NEPA by acknowledging the public's concerns and by refining and improving our NEPA analysis in response to comments received.
Just a few comments. I have spent a lot of time looking at this document and the previous ones, this is the third bite of the apple here, twice before the Army has looked at this from the environmental angle and said, "It's all good to go." You saw it up there in 2009 and 2011, and you see those dates referred to in this current analysis as being done deals that didn't really turn up any real problems, but when I read the comments from the 2011 statement I see professionals in the environmental and the Forest Service, for example, making major objections to the inadequacy of that statement.	As with public comments, the NEPA process requires the Army to coordinate with appropriate regulatory agencies. The process also encourages affected agencies and stakeholders to participate in the process for actions proposed by the Army. This occurred in the 2011 *CAB Stationing PEIS* process and enabled improvements to be made to the PEIS analysis based on comments submitted.

And just this morning I visited the local Pike Forest office to find out where they stood, are they going to resubmit what they said in 2011 as their critique of the use of the landing zones in the Pike and San Isabel Forest, well, they think they speak for themselves.	The Army responded to the concerns of the U.S. Forest Service during the 2011 PEIS process. Fort Carson will continue to communicate with Pike and San Isabel National Forests on all mutual matters.
What they definitely say, that one of the statements in here is in error when it says in 2007 they worked out an agreement with the Forest Service that covered all the bases, because the conditions in 2007 versus today have radically changed and they will radically change again as another 120 helicopters, more or less, come in to fly their training needs in our area.	Army helicopters, to include those assigned to the CAB, would not use Pike and San Isabel National Forests lands above those levels previously analyzed in the 2007 *Environmental Assessment for the Use of National Forest System Lands for Mountain/High Altitude Military Helicopter Training*. Should mountain/high altitude training strategies and/or environmental conditions substantially change in the future, those changes would be analyzed in an appropriate future, site-specific NEPA analysis.
On a couple of other points that to go the inadequacy of this statement, one is the contradiction between two different -- this is an overview of this project done by the Army Corps of Engineers, and it's part of the statement they released last September which talks about the machines that are going to make up this brigade, they include a couple things that are not on a -- a -- similar but different summary of the machines, the helicopters, that is in the -- the EA -- the one -- the couple thing -- the most important omission is what is part of a -- a standard heavy-Combat Aviation Brigade going forward, and that's going to be 12 unmanned Army version of the Predator drones. Fort Riley, which has a CAB, will get those in March; Fort Drum already has some. It's curious to me why that is not part of the package that's being analyzed. I've asked Senator Bennet's office, they don't seem to know.	Although some Army CABs contain an UAS company, the CAB that has been stationed at Fort Carson does not include a UAS company. Section 2.3.2 has been revised to reflect this fact. No UAS would be assigned to Fort Carson as part of the proposed action. Consequently, environmental impacts from UAS stationing and operations are not analyzed in this EA. Furthermore, with respect to the Gray Eagle, an enhanced version of the MQ-1C Predator, Headquarters, Department of the Army made Gray Eagle stationing decisions in 2011; Fort Carson was not one of the installations identified to receive Gray Eagles.
And the curious thing is that if you look at the version of the overview that is put out by the Army in this case they messed up on the form, they forgot to recenter the label on top when they chopped off the last two lines, and it's -- it's sort of so clumsy as to be humorous that they didn't quite do a -- a cosmetic enough job on -- on making this look as though it was complete.	

A couple of other things that make this statement weak -- and there are a lot of them -- one, they don't talk about the cumulative effects of adding all of these helicopters and -- and Gray Eagles to the training mix around Fort Carson and here because there is already an aviation detachment at Fort Carson, a whole battalion of helicopters, and I see nothing to say how they factor in the cumulative effect of them continuing to do what they're doing now plus adding on 113 helicopters and at least a dozen -- dozen of these Gray Eagles.	We have revised Sections 4.2.2.3 and 4.11.2.3 to include discussion of the cumulative impacts of CAB helicopters and helicopters currently assigned or which currently utilize Installation airspace and ranges.
And technically you get away with that because none of those machines have yet been built, and I -- I can see down the road, in a year or two, that this being added as kind of a footnote that, oh, yeah, we brought in 113, now we're bringing a dozen more, and soon after that some of these helicopters are going to be flying without pilots in them and it -- you know, once the foot is in the door all of that stuff will follow.	The Army does not anticipate the stationing of aircraft above the number analyzed in this EA. Should the Army consider doing so in the future, a new NEPA analysis would be required.
And in the area of -- of economic impact, I -- in Colorado Springs we'll probably hear more of this -- but the cumulative end effect on the Colorado Springs economy and culture is -- is quite major, and the treatment in here and earlier that gave a rosy scenario thing that this is good for the economy across the board is just not borne out by the facts. Colorado Springs today has -- has an unemployment rate of about a percent higher than the state in the national average, and our city budget's a mess at our -- because of some of the revenue streams that don't get folded back into the local economy when you bring in people who have tax exemptions on purchases, for example, at the PX and commissary, and don't pay property tax on base housing units.	We appreciate receiving your concerns on the local economy, concerns reflected throughout the U.S. While recognizing that the current economy poses challenges for many individuals and businesses, the Army's analysis concluded that economic impacts of implementing the proposed action would be less than significant. The increased number of Soldiers and Family members are; however, expected to translate into increased expenditures for purchases of goods, contracting of services, utilities, and rent and lease payments in the City of Colorado Springs and surrounding areas. As indicated in the 2011 *CAB Stationing PEIS*, incorporated by reference in this EA, the majority of the new military personnel are expected to live off-post, thereby generating revenue in the local economy. Local governments also receive compensations for the loss of property tax revenue resulting from property being under Federal ownership (P.L. 94-565. Payments in Lieu of Taxes Act, passed in

	1976). Within Colorado, 17.73 percent of state and local governments' 2009 revenue was provided by the Federal government (Tax Policy Center, 2011. "State and Local General Revenue, FY 2009", Tax Policy Center, 05 Dec 2011, http://www.taxpolicycenter.org/taxfacts/displayafact.cfm?Docid=507, accessed 06 Mar 2012).
There is one cryptic statement in here about how they're going to build more housing or will have to when this -- you know, none of the soldiers are here yet, so this is down the road a ways, but it would seem to be part of a cumulative impact to talk about that. The corporation that runs that is something called Balfour Beatty, it's a British corporation, so the checks that get cut go to England for that, and a lot of -- you know, there have been a number of stories of -- that have looked into this economic impact with a little bit more critical eye than you will find in this report.	As noted in Table 3.2-2, construction of Family housing on Fort Carson is an in-process project. NEPA analysis on the Family housing action has been completed. The need for construction of more on-post housing was driven by an existing deficit of such housing at Fort Carson but would be housing available to some CAB Soldiers. Provision of housing for any Soldier stationed to Fort Carson is satisfied by a combination of on-post privatized housing and off-post homes and apartments. The consequences of providing on-post housing for CAB Soldiers and their Families are discussed under cumulative effects for relevant VECs. For example, the utilities VEC discusses the increase demand for water in which cumulative impacts are contributed, in part, by on-post housing construction and occupation. Privatization of Family housing has its own statutory authority and contract requirements which were fully complied with, resulting in a contractual relationship with Fort Carson Family Housing, LLC, which in turn, has a relationship with Balfour Beatty.
I would like to close with just quoting one paragraph out of this EA, which I suggest should put us on notice, it's been referred to a little bit before, if you don't have it in writing you probably don't have anything, and this is just a paragraph tucked in here on Page 2.5. "Environmental and Training Conditions. Factors beyond the Army's control, such as world events, troop deployments, and climatic conditions affect the implementation of training. Environmental and training conditions are dynamic" -- whatever that means -- "therefore, training activity under the proposed action is a process	The President and Congress provide the military with national priorities for which the Army helps support. This is done through various means, to include the annual National Defense Authorization and Appropriation Act. The Army mission is constant: to provide to combatant commanders the forces and capabilities necessary to execute the National Security, National Defense, and National Military Strategies (HQDA, 2005. FM 1, *The Army*, HQDA, June 2005). The military adjusts its strategies to meet the priorities set by the President and Congress. As evidenced in the history of our

by which the Army would monitor and responds to changing conditions in order to sustain the land for training and provide maximum troop readiness." To me that's -- that's like a trap door that says that all of the stuff in here is subject to change based on the fact that this is a dynamic process. I think this is in there because of all the static that arose from the Army's initially having made pledges about no live fire and no expansion being a part of the original agreement, so you put a paragraph like this in there and you're covered going forward, modifications can always be justified because the process is dynamic, depends on world events, training needs, et cetera. So I think that's why a lot of the people here are reading this thing with a -- with a -- you know, with a grain of salt, and -- and they should do that I think.	country, factors beyond the control of the Army influence the direction and decisions set by the President and Congress. The NEPA regulations issued by the Council on Environmental Quality state: "Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question" (40 CFR 1500.1). The NEPA process is integral to Army planning. It assesses the impact of proposed actions. Prior NEPA analyses are not a limit to future proposed actions, which are subject to their own appropriate NEPA review. As stated in Section 1.2, the proposed action does not require or involve expansion of PCMS. The Army takes its legal responsibilities seriously, as it does for environmental stewardship responsibilities.
ID: 113 | **Date:** 1/23/12 | **Name:** Juliette Mondot	**Method:** Transcript | **Other Notes:** Transcript – Trinidad
Comment	**Response**
I want to read a quote from the first public Branson meeting that I made, "It doesn't happen very often, but who do we call when some sky jockey comes screaming down so low my animals and me pee on ourselves?" I was told I should make a noise complaint with the Public Affairs Office, and I was given a phone number, but that lovely person is long gone, phone numbers are not a system of communication nor is a business card, so I didn't have a name for my experience at that time, you know, the kind of let's-play-with-granny game. Another incident happened --- and I've reported this one twice, last one in public -- about driving past PMS -- PCMS to town on Highway 350 and being tracked by a helicopter maybe 40 feet up to my side, over the powerlines, for several miles, and these boys were having a real good let's-game-granny time, because I could	Thank you for comment. One of the purposes of the NEPA process is to allow the public to share its concerns and we appreciate your participation in this process. Fort Carson continues to maintain a noise complaint hotline and the Public Affairs Office will continue to address concerns raised through this hotline. Accompaniment of helicopter identification numbers with reporting of noise complaints would better enable the Army to address reported concerns. Fort Carson is committed to maintaining a "Fly Neighborly" relationship with our community. Please see the response to comment #2 regarding the requirements Army aviators must follow to ensure safety and minimize annoyance and infringement of a property owner's enjoyment of his or her own land. Included are minimum elevations and distances. For example, pilots

see them laughing, until I finally opened up the window, and, no, I didn't flip them the bird, I -- I gritted my teeth and waved and they finally left me alone (indicating). So I have reported that. Now, the fact is that sure has been the subject of low-flight training, nap-of-the-earth training especially since 2006. Hmm, wonder why? There have been flights that have buzzed our homes, our ranches, rattling everything, spooking the animals. The helicopters came over Thatcher for, like, 15 minutes one day, back and forth, back and forth (indicating). Personally I don't see anything in this EA that's going to prevent that from happening again, so I just have to ask who's going to protect us civilians in the homeland? They've already been messing with us. I have gotten very little accountability from any Army -- Army personnel, no one has helped us try to track down who's doing it to us. So just last December 29th, after I had registered my complaint about the helicopters through Thatcher, another dark green helicopt -- helicopter passed very low through Thatcher last -- 29th, last year, so I have to wonder is that failure of command reaching rank and file, or is it even the Army's helicopter, is it some other branch, or is it an example of rank and file not obeying command? I really don't see anything in this EA to address that issue. I think it's very good that nine years after I mentioned the broken promise about a citizen's advisory committee finally the -- are -- a suggestion to reconstitute the land use committee is in this EA. That's land use, what about air use? So I hope that the Army will look at this idea of a citizen's committee more closely, this is a long overdue process in terms of creating a structure of communication with your PCMS neighbors.	flying Route Hawk have a minimum altitude of 100 feet AGL. Also, as noted in the response to comment #13, the Army does not have any NOE flight routes over private property in southeastern Colorado and Section 4.4.2.2.4 has been updated to correctly identify the fact that Route Hawk is a low-level route, not a NOE route.

I like the Army, I like the new people especially 'cause you all treat us a lot nicer than the old people did, but I still don't see any guarantees of protection for your Piñon Canyon neighbors. The outreach for covenants with cities is wonderful, Army 101 is wonderful, I'm glad that it's much more gender-equal in the Army employment, I'm glad that you're reaching out and trying to really help the soldiers and their families, there's a lot of good things you're doing, meanwhile there's us and this is how we feel. (Indicating.) We don't like it. We don't like the hardship that's been perpetuated on us through all these many years. We can't sell our land, we can't get credit, our communities -- divorces are happening, people are dying, people are getting sick, this is going -- as the lady said -- on and on and on. Please, we really do like the fact that there's a legal civilian process to allow this kind of public testimony, we are very grateful that you are so polite while we try to state our case again and again and again and again and again, but somehow there has to be more recognition that you have a relationship with your rural neighbors, and it has to be beyond a business card or personnel that are rotated by the Pentagon every few years. Personally I believe the Pentagon needs to look at their command structure, because I believe this concept of rotating command to train them to become generals is perpetuating a culture at the bases that is not really conducive for a long-lasting, trusting relationship. So please look at the hardship that you continue to perpetuate on your neighbors at PCMS, and I hope that your Final EA will accommodate our concerns. Thanks.	

ID: 114	**Date:** 1/23/12	**Name:** Joella Hill	**Method:** Transcript	**Other Notes:** Transcript – Trinidad

Comment	**Response**
I live at Thatcher, Colorado, I live right across from the Army base. I would like to have the landing strip moved. It's just a piece of dirt, it doesn't have any hard top, nothing, it's just, you know, a touch-and-go with the -- the planes that come in, but I can tell you what, they spend more time on my land than they do on theirs; and the helicopters are buzzing every kid I've got, and not only that, they're after the grandkids for heavens sakes. And, you know, this is ridiculous, we have our own land, we pay taxes, why in the world can't they stay on their own 200-and-some thousand acres? There's no reason for them to be on private land.	Thank you for your comment. One of the purposes of the NEPA process is to allow the public to share its concerns and we appreciate your participation in this process. As noted in the response to comment #2, Fort Carson Regulation 95-1, Section 5.2(d), requires Army helicopter to avoid all houses, buildings, people, livestock, and moving vehicles by a minimum slant range of ½ nautical mile. Additionally, when pilots are not flying an approved low-level route, they are required to be at a minimum 500-foot elevation when flying over private property. At PCMS, pilots are to adjust their flight path from the Combat Assault Landing Strip to ensure the aircraft is at the 500 foot elevation by the time they cross the Installation boundary. Fort Carson continues to maintain a noise complaint hotline and will continue to address concerns raised through this hotline. Accompaniment of helicopter identification numbers with reporting of noise complaints would better enable the Army to address reported concerns. Fort Carson is committed to maintaining a “Fly Neighborly” relationship with our community.
We -- we absolutely need the air strip moved away from the highway. I had all of these helicopters -- this lady was talking about -- that came in, and this one helicopter boy, maybe he was 18 -- I don't know how old he was -- but you need a general or someone in charge of these poor little boys because they can't -- they're having fun, and they can't seem to figure out that this isn't a great big, fun deal to come to Piñon Canyon, there's nobody to be a boss. They went underneath the highline, underneath the highline, and they got plum underneath of it and they almost hit the hills (indicating). How in the world they got over there I have no idea, but we did call and we told them, now, whether we -- anything was	Movement of the PCMS Assault Landing Strip is not part of the proposed action; therefore, alternative locations were not considered nor analyzed.

done or not we have no idea. Okay, the interior of the base is filled with trash, it's been that way for quite some time now, and if you get on a trip out on the Piñon Canyon base itself they will take you to certain spots, but you absolutely don't get to see all of this trash. I can take you from place to place and I can show you the trash that's piled up. Maybe not since the fire, because maybe it might have caught fire, but so did the trees.	The Army takes its solid waste management responsibilities seriously. Trash generated on PCMS is managed in accordance with the Installation's Solid Waste Management Plan.
Okay, another thing is we had 300 head of antelope or more on my land. I don't have a very big place, I don't have enough water or grass or anything for 300 head of antelope. They come across from the Army base, there's no water. They don't fix the windmills and they don't fix the pipelines, they have seven solars, that's it. The well man called me the other day and he said, "I want your husband to come with me and come show me where to go," I said, "He's not here." He said, "Where is he," I said, "He's dead." And he also helped the -- the men that came out to fix the wells and he showed them where to go because they had no idea. Sometimes he would take them one way and, then, bring them back another way just so he would confuse them. I have packs and packs of coyotes coming over. Now, can these antelope, can these elk, can these coyotes -- do they have any water? If they don't have any water guess who's feeding them water? Me. And I'm sick of it. I don't have enough money to put up with all of the animals from Piñon Canyon, that's not fair. I'm all by myself, I have to pay electricity, they don't have to pay electricity, they're getting their water free from Trinidad. Okay, I think the main thing that I wanted to say is when they have secret people come in they don't know where they're at. There's	The Army also takes its stewardship responsibilities very seriously. Management of wildlife resources on PCMS, to include the use of water guzzlers, is conducted in accordance with the Installation's INRMP. The plan, in turn, is coordinated with appropriate Federal and state regulators, including the Colorado Department of Natural Resources. As noted in Table 3.3-1, water guzzlers for wildlife are in use and their proper placement is the subject of a current study.

supposed to be someone at the gate -- when they have a bunch of Army guys in they're supposed to check and see what you're doing, if you're going to blow up the base or whatever you're going to do, you talk to those little fellas at the gate and, you know, you can get in and you can go to contonment or whatever you need to do, okay, why didn't they stop these boys from coming over onto my land and leaving underneath -- all the way underneath my railroad track, all the way into my other -- other side of my pasture, and they went over there and fiddled around all night (indicating)? Why is this? Why -- why can't they do something? Don't they have a general, don't they have some commanding officer that has some brains? You know, you got to get these boys where they will absolutely say, yes, sir, no, sir, that's what my husband did when he was in the Navy. That doesn't happen over here at Piñon Canyon, I don't know why, I have no idea, but this is -- something needs to change before they bring the helicopters in and slap them down over there, next thing you know we'll have them landing on my land (indicating). It -- it's just ridiculous. If these people can't take care of their own soldiers here how can we go to war and have a real good product? Our boys are the most courageous in the world, and if they don't have a good commanding officer they are done -- just done for. Thank you.	
ID: 115 **Date:** 1/23/12 **Name:** Commissioner Gary Hill	**Method:** Transcript **Other Notes:** Transcript – Trinidad
Comment	**Response**
I actually have a couple of questions as a landowner, and I guess I was informed we're not answering questions tonight, and, then, as a commissioner I am -- I am going to read a statement from the county commissioners. Before I start I would like to echo Mr. Benavidez's comments, we appreciate the sacrifices that our men in arms take, and nobody's taking that away here; at the same time, we like everybody to -- you know, a -- a little empathy for us, it's our homes, it's our lives, it's our	Thank you for your comments. Please see the responses to comments #105 and #113.

businesses, and -- and it's been a big disruption, this whole thing, for, like, 30 years, and what I don't understand, and never have, is -- and I guess you have to have horse sense for this -- but when you know how much land the government owns, why? And I think common sense should prevail in Washington, but there's -- seems to be a lack of it. Colonel McLaughlin, you have been given a task and I understand that, and it's nothing personal, I have been a little rough on you a time or two, and I sort of believe I was telling the truth as I know it and that's the only way I know how to be, and -- so -- and I hope you will appreciate that. The question I have -- I am going to fix Mary here. I have to get it up here a little bit (indicating). The question I have, sir, is -- is given this will change the landscape of PCMS -- it was not addressed in the original EIS -- who decided and why was it decided to do an EA and not an EIS? I think -- I think even the Army's own stuff says, when it wasn't addressed, it needs to be, it needs to be thoroughly addressed. Some of you may think what Joella had to say and what Miss Mondot had to say is funny, you ought to have a black op helicopter fly over your house at midnight, shakes the walls, pictures come off the wall, you think you're having an earthquake (indicating). Go back originally, and I believe it was Colonel -- Colonel Burlin(phon), a young man landed a helicopter on our house and he was asking directions to Piñon Canyon -- and he's sitting there and looking, and -- and I kind of got a chuckle out of it because I -- I said -- and, so, told the young man, "When I go to town I'm lost as hell," and he asked me, "How do you know out here where you're going?" And I said, "Well, I know, I live here," and I pointed, and you can see Piñon Canon. That's a true story. And there's people around don't want to believe that stuff.	

But, Colonel, what these people are telling you about the low-flying aircraft, it's not BS, sir, it's -- it's a fact, it's happening, and they're right, something needs to be addressed. And that nap-of-the-earth flying in there does not need to happen. That's a -- you're going to have a lot of fun if you do that. That's my comments as landowner, as County Commissioner I would like to read a letter. This is to Colonel Robert McLaughlin, Garrison Commander U.S. Army, Fort Carson, 1626 Ellis Street, Building 118, Fort Carson, Colorado 80913. "Dear Colonel, Las Animas County has received a draft copy of the proposed Fort Carson Aviation Brigade Stationing Implement -- Implementation Environmental Assessment. Due to the obvious and inevitable environmental impacts that the Aviation Brigade will cause to the Piñon Canyon Maneuver Site, PCMS, the Las Animas County Board of Commissioners requests your support in commissioning a full Environmental Impact Statement, EIS, to determine the precise effects of the Aviation Brigade upon PCMS and surrounding areas. Your support of a site-specific EIS will assist this community in understanding the brigade's -- effects to PCMS. "This board believes that a PCMS-specific analysis is warranted in order to comply with Section 1.6 of the PCMS Transformation Environmental Assessment as it -- and it will establish the actual impacts to PCMS and thereby enact National Environmental Protection Act, NEPA, safeguards to prevent irreversible damage to terrain, and further analysis -- until further analysis is performed the effects on PCMS are more speculative than defined." And I believe that's -- I read the ES, that's kind of the way I take it, too.	

"As Garrison Commander charged with ensuring compliance with all rules and regulations regarding the use of PCMS this board requests your support of the suggested PCMS EIS. We look forward to receiving a noti -- formal notice of that intent to perform the EIS," and it's signed Las Animas County Board of Commissioners, Gary Hill, Mack Louden and Jim Vigil. I think that's it, thank you.	
ID: 116 **Date:** 1/23/12 **Name:** Rachel Snyder	**Method:** Transcript **Other Notes:** Transcript – Trinidad
Comment	**Response**
This is the first time I've attended one of these meetings and the first time I'm expressing my views publicly, so while you may not like what I say it will be fresh. I am a full-time resident and property owner in Branson I'm not a rancher, I'm not married to a rancher, and, in fact, I have no blood family in this area, neither am I a card-carrying member of the Grassland Trust, the Pinon Canyon Expansion Opposition Coalition or Not 1 More Acre. I moved to Branson from the Front Range several years ago, exercising my unalienable right to life, liberty and the pursuit of happiness. Against this backdrop I now find myself eye to eye with an impossible-to-ignore gargantuan elephant thrashing about in a very small room. Simply put, why is my government waging an ever-escalating war against me and my neighbors? Why must so many individuals and families invest so much time, energy, money and heartache defending our way of life against the very people who have sworn to defend our rights at all costs? Why the rampant marginalizing of Southeastern Colorado? Aren't we Americans? Had I been seeking the questionable joys of wave after wave of legal attacks lying in the sand jockeying for control, obfuscation, endless profiteering by taxpayer-subsidized private military	Thank you for your comment. One of the purposes of the NEPA process is to allow the public to share its concerns and we appreciate your participation in this process.

contractors and governmental disregard of the people and places I have come to love I may have instead chosen to take up residence in Baghdad or Beirut. The planes, helicopters and drones may not yet be here in full force, but the strafing has already gone on far too long. Southeastern Colorado may not look like much on a satellite image, but this is hardly a vast and valueless wasteland. Look more closely and you can see young children riding their bikes on the school playground; step into town on your own two feet and you'll see chickens in the yard, elders visiting in the sun, ranchers hauling hay, water or livestock to or from their drought-stricken acreage. When folks around here aren't forced to drive a hundred miles or more for yet another meeting or to miss supper yet again while they gather up papers and prepare their remarks we are doing what our fellow citizens all around the United States of America are doing, raising children and grandchildren, building businesses, fixing up the house, attending church, loving the living and dying, and, yes, participating in local government, paying taxes and voting. In addition, many Las Animas heritage families are giving their generational lifeblood to put food on American tables and not inconsequentially raise the pulse of our local economy. Yet in how many other places across this country are mothers and fathers and grandparents and aunts and uncles forced to get up every morning knowing that the terrible swift sword of the U.S. Department of Defense hangs just above their heads? Aren't we Americans? One must pause to wonder if some bargain has been struck somewhere in a room without windows thereby selling Southeastern Colorado to the most powerful bidder. While a slum-bearing democracy moves at glacial speed the souls of Las Animas County	As noted in the response to comment #1, the CAB that is being stationed at Fort Carson does not include a UAS company. UASs are sometimes also referred to as “drones”. Additionally, the CAB’s aircraft are helicopters and do not include planes.

weep for the incalculable loss that looms. In 1776 the colonists decried the king's tyranny for a litany of reasons, including, as stated in the Declaration of Independence, quote, "He has affected to render the military independent of and superior to the civil power," end quote. My vision of America does not include an omnipotent military joined in unwholly wedlock to insatiable war contractors and empowered to lay siege to its own citizens. War is neither a viable nor sustainable enterprise, and certainly not worthy of ceaseless and unremitting build-up. How many of our broken veterans could be served by the money being spent to wear down the bodies, minds and spirits of the people of Southeastern Colorado? There are those of us who feel uncompromisingly zealous about the priceless grandeur of this singular region of our extraordinary state. We look toward the highest levels of government and we ask who will steadfastly stand tall for proper guardianship of the fragile biosphere we call home, be it accorded private or public ownership. Once the land and sky have been desecrated what lies in between eventually ceases to matter, that includes me and my friends and my adopted community and my neighbors in Southeastern Colorado. Aren't we Americans? Thank you.	
ID: 117 **Date:** 1/23/12 **Name:** Jim Turner	**Method:** Transcript **Other Notes:** Transcript – Trinidad
Comment	**Response**
I thought I would bring a speech with me tonight, but I just don't like reading that way. I'm just going to ask one thing --I know I am not going to get an answer -- but why? Why CAB? Where did it come from? Where was this moved from? I don't know. I know you can't answer it.	Thank you for your comment. Please see the response to comment #73. Also, the proposed action does not include expansion of Army lands.

But Mr. Louden and I did find that Equal Region Based Mapping of Military Operating Environments -- MOES for short -- apparently you threw this whole study away. This study was done by Mr. Robert G. Bailey, at CSU, and what it did was -- when they were doing the Base Closure -- or Base Re -- Realign -- Realignment and Closure Act they did this study so the military could study the region of the conflict in the world that we may be in in the future with different bases here in America so we could train our troops better because it mat -- matched the same environment. Hmm, nowhere in that study was Fort Carson or Piñon Canyon or any expansion; Iraq, Kuwait, Saudi Arabia with Fort Bliss, Yuma and White Sands. Now does anybody know anything about Fort Bliss, Yuma or White Sands?

UNIDENTIFIED MALE SPEAKER: I do.

MR. JIM TURNER: Yuma is the home of Yuma Army Proving Grounds, and very nearby is the -- and I -- I am ashamed of myself for forgetting his name because he is a hero of mine -- Barry Goldwater Air Force Range, you know how big this thing is? Well, it's as big as White Sands, bigger. If you put Yuma Army Proving Ground with it we're really getting big. You ain't going to disturb nothing but the sand for over a hundred miles, 40 miles wide.

They brag down there at Fort -- at Yuma and Barry Goldwater that they trained 95 percent of the Air Force pilots -- or the pilots to fight the Persian Gulf War, they must have had the facility there to do all this training.

I don't know where this unit's coming from, this brigade, but why?

Just with Fort Bliss and White Sands you got over 3.7 million acres, Barry Goldwater is 2.664 million acres.

Fort Irwin, Col -- California, for short it's the NTC -- National Training

Center -- now, I don't know which one -- any of you soldiers -- and I appreciate all your dedication and your bravery for everything you've done, I'm a veteran myself of Vietnam Era -- have you ever been to Fort Irwin? I have many a times. Have you ever been to Afghanistan? I have seen many pictures, I've never been there, but this ain't Afghanistan, this is not even Iraq (indicating). Not even close. They can stand up here -- and one time a young man did get up here, was in -- in a uniform, been there, this is quite a bit like it, no, it's not (indicating). Fort Irwin, California, you ought to go there once and, then, look at the pictures of the mountains on the border we fight in Afghanistan, you'll swear you're there (indicating). If you got to train these people, do it at Fort Irwin for Afghanistan, it's perfect. We train a lot of soldiers there. You drive into Fort Irwin and you will see a bunch of rocks, outcroppings, and you see I know over a hundred paintings on these rocks of different units that have trained there. I have witnessed Fort Carson, when they were not allowed to go out here and train, fly helicopters and truck vehicles all the way to Fort Irwin, Col -- Fort Irwin, California. Each soldier is assigned a vehicle if they're in that MOS, they haul this vehicle clear to California, they fly these helicopters out there, what a waste of money (indicating). Now, I have been there and the motor pool is not that large, it could be expanded, but why don't we just have the soldiers at Fort Carson fly them there and use the vehicles there instead of flying vehicles -- or flying helicopters or moving vehicles from Fort Lewis, everywhere? They bring them in to there, their own vehicles, they got it right there on the bumper or on the windshield (indicating). Makes no sense at all. What a waste of money.	As noted in Section 2.2.3.1, the Army's decision to station a CAB at Fort Carson was partially based on the training resources at Fort Carson and PCMS, so as to optimize training opportunities for CABs to train with ground maneuver Brigade Combat Teams (BCTs). Studying an alternative to conduct regular installation-level training at locations other than Fort Carson and PCMS would essentially constitute re-examining the decision documented in the 2011 *CAB Stationing ROD* and;

	therefore, is not within the scope of this EA.
Now, I have been there and the motor pool is not that large, it could be expanded, but why don't we just have the soldiers at Fort Carson fly them there and use the vehicles there instead of flying vehic -- or flying helicopters or moving vehicles from Fort Lewis, everywhere? They bring them in to there, their own vehicles, they got it right there on the bumper or on the windshield (indicating). Makes no sense at all. What a waste of money. But my point is this Equal Region Based Mapping of Military Operating Environments, we're never going to close down all these bases and realign all these bases. One of the bases -- and I am going to bring this up now, I know this meeting's not about that, the expansion -- Cannon Air Force Base in New Mexico was supposed to be closed, shut down with this closure –	
But I'll -- I'll say real quick, too, you're talking about low -- low-flying helicopters, four or five at a time in formation, under 500 feet, I live, oh, by road -- it's probably 20 miles the way the bird flies west of Trinidad in the foothills, and I have seen them right in front of my house, we're not even nowhere there. Piñon Canyon's a big enough space out there, they were up there in the foothills, oh, maybe a couple hundred feet over the treetops, and, like you said, everything shakes, I mean, you can feel it on your body (indicating). What are they doing there? They don't care where they're at. It doesn't matter. I don't know who's doing it, I don't know if you young -- you young men are pilots or just like me, I was a grunt, but we can do this somewhere else, we got plenty of space, plenty of bases that's not being utilized. They go down there to Yuma and test vehicles to see if they will do what they need to do in the desert or the areas of the world -- we	Regarding low-level flights and noise, please see the response to comment #113.

think we're going to have conflict, even Korea. Iran, Somalia matched up with Fort Hood and Fort Sill; Korea -- which we might have trouble with North Korea someday -- but Fort Campbell, Fort Knox, Fort Drum and Fort Meadowood(phon) where I went to basic, nothing matches this. But the military or the Department of Defense thinks we might have a conflict area in the future, why are we pitching Fort Carson for all this? I know, I don't get no answers, and you will never get any answers, but all I can say is why. These people's lives are five years at a time. A year's already gone, they got four more, they don't know what they got. I -- I couldn't live with the stress. I feel sorry for these poor ranchers, and I'm not one of them. I'm friends of some of them and I live west of I-25, but I'm -- I'm putting up with it up there, I can imagine what you're putting up with, and the uncertainty of what's going to happen four years down the road (indicating).	
ID: 118 **Date:** 1/23/12 **Name:** Jacob Walter	**Method:** Transcript **Other Notes:** Transcript – Trinidad
Comment	**Response**
I speak for myself, my family and the Hoehne FFA when I say that these small attempts to gain a foothold into expanding are absurd. The Army keeps doing little things to get their way. They start off trying to initialize more training at Piñon Canyon Maneuver Site, and they will keep doing more and more as we give in more and more, until they finally move in and expand. My grandpa moved to Thatcher -- which is about a mile from the northwest corner of Piñon Canyon -- on August 15th, 1963, and, then, he moved to the head at Stage Canyon the -- on -- 1978, before it was taken a few years later by eminent domain, and he had to move again back to Thatcher. Piñon Canyon has not been taken care of, the environment, as you know from the fires this summer. We border Piñon Canyon	Thank you for your comment. The proposed action does not include expansion of Army lands. The Installation has an active wildland fire management program. Whatever the cause of wildland fires, natural or man-induced, the

Maneuver Site for about 10 miles, and out of those 10 miles about 8 of them burned in the fire, and I had the joy of fixing about 8 miles of those fence for a month out of my summer. But furthermore, when their proposal of expansion came up again the Future Farmers of America fought it and even appeared at Congress. FFA has been there all along and we're still here tonight.	Installation implements specific guidance, procedures, and protocols for the prevention and suppression of wildfires and management of wildland fuels on all Fort Carson training lands, including PCMS.
ID: 119 **Date:** 1/23/12 **Name:** Doug Holdread	**Method:** Transcript **Other Notes:** Transcript – Trinidad
Comment	**Response**
I would like to address Section 4.9.2.2 of the EA, it's a -- a section dealing with socio -- socioeconomics. This section states that the stationing of the CAB at Fort Carson would have no measurable economic effect within the Piñon Canyon Maneuver Site region of influence because there would be little opportunity for local economic stimulus. While it's probably true that the CAB would do nothing to stimulate our regional economy, it will do much to depress it. The unresolved threat of expansion at Piñon Canyon Maneuver Site has had the effect of discouraging investment in our regional economy, in the ranching and in the wind energy de -- generation -- generation's -- sectors of -- of the economy.	There are many factors impacting the economic health of a region. Proposed actions analyzed under the NEPA process by the Army focus on the economics more directly affected by the proposed action, specifically as it relates to population increases or decreases and the resulting impacts to quality of life, housing, employment, schools, demographics, community services, and environmental justice. Since there would be no population change in the PCMS region as a result of CAB stationing implementation, the analysis regarding PCMS is substantively shorter. Additionally, as the proposed action does not include land acquisition, real estate appraisals and valuation by the Army is not warranted. As noted in Section 1.2, the proposed action does not require or involve expansion of PCMS. The impact to the economy from perceived "unresolved threat of expansion," a random variable, is not reasonably susceptible to objective measurement or reliable evaluation.
The addition of a CAB in the context of the Department of Defense waiver, which remains in effect to this day, only serves to sustain the uncertainty and the reluctance of investors. Our region, Southeastern Colorado, holds great promise for the generation of wind energy. It's been designated by the State of Colorado as a prime generation development area. Military training in general, and low altitude and nap-of-the-earth flights in particular are in direct conflict with those promising possibilities for our economic future. According to a report issued by the U.S. Department of Homeland	The Army acknowledges and supports sustainable energy initiatives, such as the Fort Carson Net Zero initiative described in Section 4.12.2.3 (cumulative impacts). The Army has no intent to impede or otherwise impact sustainable energy projects by private landowners. Landowners can expect an unbiased and objective response to any wind energy proposals through DoD's recently established clearinghouse on proposals impacting military lands and operations. There is no foreseeable plan by the Army to add additional NOE,

Security -- I am quoting here from that document -- "Wind farms interfere with radar. The interference has led the F -- FFA" -- I'm sorry -- "the FAA" -- the -- that's the Federal Aeronautics Administration -- "the Department of Homeland Security and the Department of Defense to contest many proposed wind turbines in the line of site of radar, stalling development of several thousand of -- of megawatts" -- milliwatts -- mW is – whatever that is -- "of wind energy, a large number of such denials is a serious impediment to the nation's mandated growth of sustainable energy." This is really unfortunate because energy independence is really the key to our future and national security, and by developing wind farms in our region, Southeastern Colorado, would be helping to make the future more secure and make future wars less likely. So we're kind of confronted with a choice in regard to how we want to be the stewards of this place on the planet, do we want to use this land to militarily acquire and maintain control of interests, primarily interests of -- of big corporations in parts of the world, or whether we want -- whether we want to use our land to solve the problem, to -- to generate energy and to make future conflicts less necessary?	contour, or low-level flight routes over private property in southeastern Colorado that would be used by CAB aircraft. Section 4.11.2.2 has been revised to clarify that implementation of the proposed action would not include any request to the FAA for additions and modifications to existing airspace designations. Section 4.4.2.2.4 has also been updated to correct the fact that the existing Route Hawk is a low-level flight route, not a NOE flight route.
Section 5.11.3 of the Pro -- Programmatic Environmental Impact Statement for the Realignment, Growth and Stationing of Army Aviation Assets -- which is referred to numerous times in the EA that we're considering here tonight -- says this -- and this is a quote -- "The cumulative impact of a CAB stationing, along with other present" -- or -- I'm sorry -- "past, present and reasonable, foreseeable future actions that affects economy, employment, demographics, housing, quality of life, schools, community services or environmental justice on and around Fort Carson and Piñon Canyon Maneuver Site are expected to be less than significant." The negative impact of expanded training at Piñon Canyon can only	In Section 4.9.2.3, the Army analyzed broad socioeconomic cumulative impacts, to include past, present, and reasonably foreseeable future actions. The analysis does not focus on a single sector of a region's economy but on the overall cumulative impact. The Army's analysis concluded that these broad impacts are expected to be less than significant.

be understood in the context of the last 30 years of history. When the Piñon Canyon Maneuver Site was created back in 1982 approximately 3,000 head of cattle were taken out of the economic equation for this region. Over the course of three decades that loss, along with the loss of tax revenue and the multiply -- plier effect, have amounted to hundreds of millions of dollars of loss to our regional economy. So while it's true that the addition of a CAB would not -- would have no positive economic effect, it's not true that it would have no effect. It would add to the cumulative negative effect that 30 years of lost agricultural production has had upon our economy. Section 4.9 of the EA should be amended to more accurately assess the negative impact that a CAB would have upon our regional economy in the context of the past, present and future cumulative negative impacts.	
One of the things that really bothers me about these EIS and EI -- or EA processes that I -- you know, Lorie was just asking me how many times have we done this now, and I -- I've honestly lost track, I mean, we have gone around this same -- the same process quite a few times, but one of the things that I never see in these things is that this will have significant impact, it always says it will either be of no significance or it will be -- what's the word -- re -- remediated -- mitigated. These -- these documents should at least be honest. We're -- there's hundreds of millions of dollars of cumulative damage that have done -- been done to our regional economy, where there's degradation of the environment; where there's the disruption of people's rights to life, liberty and the pursuit of happiness; where our economic viability as a region is threatened; where -- where people's security in their own homes and privacy on their own personal property is threatened with destruction by a -- our own military, if you're going to produce documents like this at	One of the purposes of the NEPA process is to allow the public to share its concerns. The Army follows the intent of NEPA by acknowledging the public's concerns and by refining and improving our NEPA analysis in response to comments received.

least tell the truth.				
ID: 120	**Date:** 1/23/12	**Name:** Mary Ellen White	**Method:** Transcript	**Other Notes:** Transcript – Trinidad
Comment			**Response**	
I have a friend who lives in Evergreen, Colorado, he hunts on Piñon Canyon, he said, "There's no better place on earth to hunt than in Piñon Canyon." So I said, "Well, there are other places," he said, "Yes, but the General -- the Generals' wives all like to say, 'We live at Colorado Springs and we have a good social thing there,'" and the -- with the generals liking to hunt here and their wives liking Colorado Springs none of them will ever be in Trinidad, and in their minds we are dispensable.			Thank you for your comment.	
ID: 121	**Date:** 1/23/12	**Name:** Rebecca Goodwin	**Method:** Transcript	**Other Notes:** Transcript – Trinidad
Comment			**Response**	
I want to address something sent -- Table 3.3.2 in the EA, and it's looking at Best Practice Commitments an -- at the Piñon Canyon Maneuver Site and Fort Carson for the implementation of this. Under "Cultural Resources" it states, "The exist -- existing mitigation measures. The installation's Cultural Resource Program would continue to maintain cultural resources -- sustainably through existing -- existing management and -- and procedures and policies, the ICRMP, Integrated Cultural Resource Management Plan, and the PA, Programmatic Agreement." Unfortunately that statement is not only inaccurate, it is false. There is not an existing ICRMP, there is not an existing Programmatic Agreement. In 2006 the ICRMP expired. Army regulations require that an ICRMP be done every five years, in June of 2007 the transformation EIS stated that, "The 2006, 2010 ICRMP is under development as is the Programmatic Agreement."			Thank you for your comment. Table 3.3-2 has been corrected to address the error indicating that a Programmatic Agreement (PA) was in existence, thereby aligning the table with the information presented in Section 4.8 regarding the status of the PA. The Installation recognizes that the current Integrated Cultural Resource Management Plan (ICRMP) is past due for revision. No Federal or Army regulation renders an ICRMP invalid if an update is not completed in the five year window. In 2011, the Installation began a comprehensive revision of the ICRMP and a draft is currently in a first stage review. It is anticipated that this process will be completed in 2012. No change was made to Table 3.3-2 as the ICRMP is in existence, though the update is in process of being completed. As explained in the footnote to Section 4.8.1, the original goals were not met for having completed a National Historic Preservation Act (NHPA) PA and an updated/revised ICRMP prior to any site-specific NEPA evaluation for implementation of CAB stationing. As a result, Fort Carson continues to be responsible for adhering to the Section 106 process for all Federal undertakings, as defined in 36 CFR 800.16(y).	

July 2007 Fort Carson elected to develop an Army alternate procedures for Section 106 compliance; February 20th, 2008, a second meeting was held, at that meeting was -- the SHPO, the Colorado State Preservation Officer, the National Trust for Historic Preservation, Colorado Preservation, Inc. and the -- those -- those groups were not invited to the meeting, nor were the county commissioners from Otero, Las Animas County, until they requested to be there.

On May 5th, 2009, the SHPO wrote a letter to the Army requesting clarification of Fort Carson's conservation procedures due to the expiration of the 2006 ICRMP. On May 5th Colonel Smith re -- replied to them, and he responded -- he stated that it had been their goal to have the IC -- the basic outline for the AAP ready in June of 2008, but that they had been unable to complete the draft due to fires on Fort Carson and the PCMS between April and June of 2008.

On June 9th, 2009, to the Colorado SHPO Colonel Smith stated, "As regards the ICRMP and implementation of the AAP, we began the process of updating the 2002, 2006 ICRMP during -- fiscal year '06 and fiscal year '07, it was our intentions to have the basic outline of the HPC ready for consultation with all parties no later than June 2008, however we were unable to meet this deadline."

January 20th, 2010, another letter to the SHPO, "In consideration of all comments received, Fort Carson had made the decision to develop a standard PA for complying with 36 CFR of part 800 of the National Historic Preservation Act."

March 3rd, 2010, representatives from the Army and the Army Cultural Resource Management staff and others met at the PCMS to discuss the Programmatic Agreement.

December 17th, 2010, the Director of Federal Programs and Advisory Council for Historic Preservation received a letter from Fort Carson Garrison Commander, Colonel McLaughlin, in response to a letter from them, and -- damages during the July and August 2010 training exercises -- in that letter Colonel McLaughlin stated that "steps had been taken to keep such an occurrence from happening again, including an initial draft of the PA for compliance with Section 106 has been staffed to Fort Carson personnel for comment and we anticipating -- anticipate continuing consultation with the Colorado SHPO and your office, and are culturally affiliating November(sic) American -- Native American Tribes in February, March of 2011." In February of 2010 the CAB EA states that, "Existing mitigation measures for impacts will be handled under the ICRMP, the PA." They do not exist, sir. Another statement in that EA that is false, "the Army is committed to open decision-making and building community trust," Section 1-4. Yet on July 21, 2011, the Colorado SHPO received a letter from Fort Carson, the Garrison Commander, under the section titled "Consulting Party and Public Involvement," Section 1 -- 106 of the National Historic Preservation Act clearly states that, "Interested parties, individuals, local governmental jurisdictions and organizations that exceed PA in the National Trust are entitled to consultation status." In that letter it was written, "Although there are numerous entities and organizations that have expressed concerns regarding Army actions on Fort Carson, the PCMS, those concerns are general in nature pertaining to broad historic presentation -- preservation and are site issues, as such Fort Carson -- proposes to proceed with Section 106 consultation for Fort Carson and the PCMS with your office, the ACHP and the Tribes only." Again -- and that is your idea of open decision-making and building community trust? I question that.	Section 106 does require that Federal agencies solicit interested parties, individuals, local governments, and organizations. Specifically, as described in 36 CFR 800.2(c)(5), "individuals and organizations with a demonstrated interest in the undertaking may participate as consulting parties due to the nature of their legal or economic relation to the undertaking or affected properties or their concern with the undertaking's effects on historic properties." To that end, the Installation intends to consult with interested parties in accordance with the regulations. The letter referenced here, dated received by the State Historic Preservation Officer (SHPO) on July 21, 2011, states that Fort Carson will fully assess the comments of interested parties after they have first solicited the opinions of the ACHP, SHPO, and Tribes. Once that consultation offers "tentative resolutions" based on those discussions, Fort Carson will "publish the tentative resolutions for a 30-day public comment period, thus affording all parties the opportunity to review and comment." Fort Carson and the Army see the solicitation of those comments and questions as critical to

	successfully completing this process.
ID: 122 **Date:** 1/24/12 **Name:** Jim Herrell	**Method:** Transcript **Other Notes:** Transcript – La Junta
Comment	**Response**
I would like to start my part of this tonight with welcoming my friends, people that I've seen present here for lo these many years. As the commanders change we form our opinions about those people, and I am here to tell you publicly that I believe that this gentleman before me has the best interests of the United States at heart (indicating). I believe that everyone in this room owes the Army, the military of the United States, and all its trappings a vote of confidence and a vote of thanks. I have been other places in this world, and so have most of you, and I'm not the Pope, but when I get back to the United States of America I kiss the ground. We are so fortunate to live here. I don't think there's a person in this room that doesn't believe that.	Thank you for your comments and your support of our Army Forces.
One of the challenges that we have in our society is to figure out how to actively participate in our government. Sometimes things seem to be out of balance, and sometimes the people that we have put our confidence in, our hopes and our dreams, don't have it turn out quite the way it sounded just before the election, we all suffer frustration of that nature. It wasn't but a few years ago that I came in here and the sole topic of my evening was about dinosaurs of all things. I heard a couple of people in the back say it must take one to talk about them, and I didn't take that personal, so you're not the only guy that gets hammered in this deal, you know it (indicating)? But I do want to sincerely thank you and -- and your people for the work you do, and I mean that very sincerely, very honestly. We have a difference of opinion. Having grown up in this part of the world my perception of what the heavy Combat Aviation Brigade	One of the purposes of the NEPA process is to allow the public to share its concerns. The Army follows the intent of NEPA by acknowledging the public's concerns and by refining and improving our NEPA analysis in response to comments received.

brings to this part of the world, this fragile part of the world, is an extreme challenge to your environmentalists and your recovery people. I know that I can walk out south of La Junta, up on a bluff, and I can still see the wagon tracks from the western branch of the Santa Fe Trail on the same dirt that you're driving some rather sophisticated equipment on (indicating).	
I want our troops to be the best-trained people in the world, and I believe they are, and that's a -- a commendation to you, if you'll take it, and the people you work with (indicating). My concern is if these numbers are correct and some part of these forces will visit our part of this world -- if you're truly bringing in 2800 ground forces, 700 track vehicles, between 113 and 120 attack helicopters, 3,000 support personnel, drone systems and the like, I think that's going to be extremely challenging for the environment that was carved out of Southeastern Colorado's agricultural community 25, 30 years ago, it's going to be extremely challenging for anybody to -- to maintain that set of circumstances in any way, shape or form that could be perceived as good management.	Please see Section 2.3.1 for accurate numbers of Soldiers, wheeled vehicles, and helicopters associated with the CAB. The proposed action does not include 3,000 support personnel, drone systems, or track vehicles.
I believe that the ground is so fragile that in federal court I heard a judge say that it was irresponsible then, and if we're going to accelerate what occurs there the irresponsibility ought to be boiling out the top.	The Army recognizes your concerns and takes efforts, through the Integrated Training Area Management (ITAM) program, which actively monitors the training impacts to enable rest, recovery, and restoration of training lands.
Now, I really want our troops to be the very best trained in the world. I am going to tell you that your environmentalists are not magicians, and if somebody's going to tell me that -- irrefutably that the impact that you might make in those four-plus months can be somehow recaptured in seven, I've driven through on my way to my beautiful avocation with working with dinosaurs, I can still see track vehicle marks that are along the sides of the roads that, without some significant intention, won't disappear.	
I've heard time and time again that there'll be some wonderful	

economic impact as -- as this place begins to mature, but what scares me about its maturity is -- I had a -- a senator stand here last week and tell me that I'd won, that my friends in this audience had won, he said, "Don't pack up your tent," and I said, "Don't worry" -- but I'm -- I'm deeply concerned about the impact that might occur in this particular situation. I'm -- I -- I believe that I am going to take the word of -- of my friends and the ranchers and the -- the generations of families that sit in this audience and tell you that if you're going to make it more difficult on the land and its fragility than we've already done, in -- in an unpredictable, very small-use time frame I'm afraid that we're not going to like it (indicating). One of -- and be satisfied with it. You either.	
One of my concerns has always been about some expansion scenario, and my -- my true belief is this, if you keep bringing into the community of -- of Colorado Springs south and Colorado Springs south here -- I understand that their representative to Congress is -- is such a Great American he's not even attending the State of the Union Speech tonight, that shows me some real maturity -- my concern is that as you keep bringing these things and this process to our part of the world, and we keep building and building and expanding, pretty soon -- not maybe in my lifetime, but what I'm really concerned about is our kids are going to be sitting here with your kids 20, 30 years from now, we're going to be having the same discussion, and the rationale is going to be in the expansion of the Piñon Canyon Maneuver Site we've sunk so much money and built so many things there that it's illogical to put it somewhere else.	As stated in Section 1.2, the proposed action does not require or involve expansion of PCMS.
When you walk into a bar and you are going to shoot pool for money don't shoot a ball at a time, you'd better be shooting about four or five balls ahead or somebody else is going to have your money, and that's the position I think we've all been put here in the last few years, is it may not be the immediacy and the debate about our ability with this set of circumstances to make this thing happen	

after we've done this to the land, that's shooting pool a ball at a time and we're going to lose our money, but if we're looking four or five balls ahead I'm deeply concerned that -- that more and more resources that come into our part of the world will cause, down the road, a tipping point that will be very, very difficult for us to continue to -- to -- to push against. I thank you for this opportunity, Rob. And I respect you deeply, I think in other circumstances we might be talking baseball, but I believe that we're -- we're the best of foes (indicating). And I -- I believe that I'm done. Thank you for this opportunity.	
ID: 123 **Date:** 1/24/12 **Name:** Jerry Winford	**Method:** Transcript **Other Notes:** Transcript – La Junta
Comment	**Response**
I think Jim said it real well that here we are again and again and again. I don't know how many agains he put there, but probably not as many times as we've actually been here. This is a process that, while it may not be something that we are able to change the EA process in and of itself, but -- it's a process that allows us to present our voices and to present our ideas, to present our concerns, not to the Army, not to the military, not to the federal agency that is conducting this NEPA process, but we carry it on to our legislators, those people we elect to office, those are the ones that make the decisions about whether the military or any other federal agency does or does not follow through with something. They're the ones that we depend on to do our bidding, if you will, via our ability to elect them to office. That is why we have been so successful, that's why these things have worked for us, we've made them and we've used them to work for us (indicating). The Colonel doesn't like that we have things or comments that are outside of the EA, that's his perception, that's his concern, I have a different concern and I have a right to state that concern, as do all the rest of us (indicating). As Jim said, the Colonel has one mission in mind and he's -- has	Thank you for your comments.

the best plan for the United States military in his mind, I don't doubt that either, but I don't doubt that the rest of us do not have an equally best desire, best plan for the United States in our mind, and that does not include taking away our land, our rights, our privileges for the sake of having a larger military that have nothing to do with whether or not we're better protected or not. The military has adequate property throughout the -- throughout the country, we know that. In the past five years, going on decades, it's going to be something that we're going to be able to tell our kids about. And I -- I take exception to what Jim says, I think we are going to be here with our kids because of -- why we are going to stand up and say no, we are going to say no more, enough is enough, that's why we say, okay, if you're going to trespass on my land I am going to post it to where, you know, you can't do that, and that's why we're passing out this anti-trespass, if you will, Public private property -- I am sorry -- Private property rights for airspace, we're stating that as our private property, nobody has a right to it except for us, we are posting it as no trespassing, and we ask that you consider that whenever you're considering other -- other issues.	
One thing I would like to do is -- I know a lot of you have already read through and -- and have signed these Private property rights and airspace declaration, how it has to -- how it pertains to this Environmental Assessment, it has to do with the airspace surrounding Piñon Canyon Maneuver Site, but airspace throughout Colorado that may be at threat, up to 500 feet may be personal private property, above that may be commercial if you will, but we have the right to that. And if we're going to have low-level flights, including nap-of-the-earth flights at tree level or otherwise, that's how it interferes with our rights and we are going to make a statement. Anybody and everybody around here has pro -- has property -- or has private property has the right to maintain that. I hereby place the Department of Defense, which is to include not	Please see the response to comment #2 regarding airspace and private property rights.

only to the Army and its private civilian contractors, that I am asserting my private property rights to use the airspace above my property to give an altitude not to exceed 500 feet above the highest point of my property. I am also thereby -- therefore restricting use by them or anyone else of airspace over my property to a level not over 500 feet above the highest point of my property.	
It was mentioned last night that the majority of areas that have airspace limitations -- Colorado Springs would be one of them, 8,000 feet I think is the -- the airspace -- or the -- the altitude that's required of the military up there -- and it was mentioned that 5,000 feet would probably be the minimum that military aircraft would have to fly without causing any disruption with local wildlife, with the running of your operations with ranching or -- or with -- with any other situation, and I think that that's one thing we ask in this also is that that minimum altitude, outside of the boundaries of the military operations -- military sites -- maneuver sites be at least 5,000 feet.	Please see the response to comment #13 regarding proposals to change flight altitude minimums over private property.
While my personal property, private property may be 500 feet or lower, I have a right to put wind towers, whatever on my property, I do believe that in order to avoid interference with my way of life that we need to make sure that that's above that.	Please see the response to comment #2 regarding wind towers.
One of the things that the commissioners did last night -- this is an Environmental Assessment process, it has a -- a very limited approach, a very limited assessment review of the overall issues -- one of the things the commissioners in Trinidad did, wrote a letter and read it -- Commissioner Hill did -- that this EA is insufficient and they need to have a site-specific, complete evaluation Environmental Impact Study done on the Piñon Canyon Maneuver Site as it relates to any suggested Combat Aviation Brigade maneuvers or proposed maneuvers. This ain't a done deal yet and that's what we're going to do, is we want to back that Environmental Impact Study, and that's going to push this process out. We need to fully evaluate it, look at it, it needs to be done, we need to have a	Please see the response to comment #105 regarding the level of NEPA analysis.

truthful look at it.

There are a number of things that were brought up at last night's meeting, and I hope some of those things will be brought out tonight, about some inconsistencies and errors, if -- if not complete falsehoods, that are listed in that EA.

I am going to turn these forms over, but I would like to mention their -- list the names of people that have -- have listed these -- have -- have signed these. I read it into the record last night, so I will just read the person's names and their county. There might be some that I didn't read in because you guys just gave them to me tonight, so I will copy them and I will read them into the record on Thursday night, because we will be going to Colorado Springs on Thursday night, and I would ask that there be representation -- if you all make the meeting on Thursday night, Crowne Plaza Hotel, I think it would be good to do that.

Private property rights and airspace declaration, Las Animas County, Abel Benavidez signed same form that I recited last night. Same form. (Reviewed documents.) Judith Benavidez, Las Animas County, signed the same form. Same wording. (Reviewed documents.) Jeremy Rochester, from Pueblo County, signed a similar form, same format. (Reviewed documents.) Heather Beers, Las Animas County. Patrick Shannon, Las Animas County. (Reviewed documents.) Calvin Edwards, Las Animas County. Martha Edwards, Las Animas County. Cameron Burke, Las Animas County. Jake Meyers, Huerfano County. Kathleen Mullens, Las Animas County. Bill Adams, Las Animas County. Ashley Burke, Las Animas County. Jerry Wright, Las Animas County. Cheryl Lee Carlson, Las Animas County. Joanna Patterson, Las Animas County. Edna Jolly, Las Animas County. (Reviewed documents.) Thomas Jolly, Las Animas County. Jeffrey Jolly, Las Animas County. Stanley White, Las Animas County. (Reviewed documents.) Dee White, Las Animas County. Frank Coppa, Las

Animas County. (Reviewed documents.) Cheryl Clemens, Las Animas County. Wayne Clemmensen, Las Animas County. Terry Everett, Baca County. Jennifer Everett, Baca County. Grady Burnham, Las Animas County. Baron Burnham, Las Animas County. Linda Sumpter, Las Animas County. Gianni Amato, Las Animas County. Melissa Amato, Las Animas County. Joel Smith of Raton, New Mexico. I think that's Cimarron County. I think. (Reviewed documents.) And Chesna Smith, Raton. These are just a few names of those that have signed these forms stating your public -- or your rights to your private property, stating publicly that you have the right to that. There are a number of those still there that, like I said, I -- I'll be copying and making sure that we get them to our legislators, that's the reason I'm waiting to do that. One of the things that we did when we first started this was a petition similar to this action here, and Not 1 More Acre started online similar to what we did before. We have got over 13, 14,000 petitions that are signed against the expansion over the last four or five years, we have presented those to our legislators and that makes a little bit of an impression; and our ability to stoically state that we're going to stay here and we're going to be here and we're not going to give up, that also is -- is something that makes an impression. So I ask all of us that whether we get tired of this process or whether we were concerned that we're just doing this again and again and again, just don't give up, we've been here for five to six years because we have not given up, and I want us to continue doing that, I hope you all will continue doing that. We all depend on each other, we all support one another and I think we need to continue doing that, and that's what we're doing in this process.	As noted in Section 1.2, the proposed action does not require or involve expansion of PCMS.
ID: 124 **Date:** 1/24/12 **Name:** Rebecca Goodwin	**Method:** Transcript **Other Notes:** Transcript – La Junta
Comment	**Response**
I'm sure -- I -- I spoke in Trinidad last night, but I want to go into a	Thank you for your comments. We acknowledge that there are precious

little bit more detail tonight -- I'm sure some people may be relieved -- this is still kind of a draft I was working on, so it's not necessarily complete, but in 2007 the Santa Fe Trail and the Purgatoire River Region were both placed on the Colorado and the National Lists of Most Endangered Historic Places. Over the past four years private landowners surrounding the PCMS have been working with professional prehistoric and historic archeologists, architectural historians and historic preservationists to document cultural resources. Many of those documented resources have been formally determined as eligible for the National Register of Historic Places. Of 54 that and intensive study was done on, all 54 are eligible. These resources include not only individual historic and archaeological resources, but numerous historic districts and historic rural landscapes. And what does that mean? It means that the resources, districts and landscapes under the flight path between Fort Carson and the PCMS, as well as land surrounding the PCMS are of national significance historically and, as such, are protected by the National Historic Preservation Act and NEPA. A rural historic landscape is defined as a geographical-- area that historically has been used by people, or shaped or modified by human activity, occupancy or intervention, and that poses a significant concentration, linkage or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features.	cultural resources on and near Fort Carson and PCMS. The Army takes its stewardship responsibilities in these areas very seriously. As a result of the many points you raised, the Army has refined the EA to incorporate elements missing from the Draft EA. We appreciate your participation in this NEPA process. Per the National Trust for Historic Preservation, the listing of the Piñon Canyon area on the 2007 list of 11 Most Endangered Historic Places was prompted by the Army's plans to expand PCMS (http://www.preservationnation.org/travel-and-sites/sites/mountains-plains-region/pinon-canyon.html). The proposed action does not include expansion of Army lands. CAB helicopters would travel from Fort Carson to PCMS for training, and return. Only an extremely small portion of the total anticipated flight hours for CAB helicopters would be spent flying over properties near PCMS. Most of these aircraft would be flying at standard altitudes and would be approaching and leaving PCMS by various flight paths as there are no set air corridors in the area between Fort Carson and PCMS. CAB helicopters in transit between Fort Carson and PCMS would follow appropriate FAA regulations, as currently done by other Army helicopters. These are some of the factors by which the Army has concluded that the proposed action would not have an adverse effect on cultural resources.

Rural historic landscapes commonly reflect the day-to-day occupational activities of people engaged in traditional work, including agriculture and ranching. Large acreage and a proportionately small number of buildings and structures differentiate rural historic landscapes from other kinds of historic properties. The number of people who reside on those lands is not a criteria. Rural historic landscapes are evaluated based upon 11 criteria, land use and activities, patterns of spatial organization, response to the natural environment, cultural traditions, circulation networks, boundary de -- demarcations, vegetation related to land use; building, structures and objects; clusters, such as groupings of buildings and fences; archaeological sites and small-scale elements such as abandoned machinery, which we see on the homesteads, and fence posts. The integrity of a historic resource is key and is part of the determination of National Register eligibility. In the case of historic rural landscape this integrity includes "Continuing" -- quote -- or cap -- compatible land uses and activities that enhance integrity of feel and association," this includes location, design, setting, materials, workmanship; and this is in the law, another criteria, feeling, which, although intangible(sic) -- intangible(sic), this is evoked by the presence of physical characteristics that reflect the historic scene, this includes the views and the quiet which allows people to hear the rustle of the trees or the bawling of a calf on these historic rural landscapes. Changes which can reduce the historic integrity of a rural landscape include introduction of a nonhistoric land use, this includes the use of airspace over these historic landscapes, particularly at low alt -- altitude for military aviation training, and changes the feeling due to alterations due to the viewshed and soundscape.	As reflected in the revised Section 4.8.2.2.2, the Army believes that helicopters using existing flight routes and airspace between Fort Carson and PCMS have never had an adverse effect on historic properties. The routes and airspace that would be used by CAB helicopters are already in use by Army helicopters. Use of helicopters is

	not a newly introduced activity into the landscape. Helicopter training at PCMS has occurred for over 25 years.
The Santa Fe Trail was also part of the endangered places listing. Anyone who has familiarity with the Santa Fe Trail knows of its historic significance and its designation as a historic and scenic byway, the historic views, which 19th Century travelers of the trail experienced and wrote about, are critical to the 21st Century experience of the trail. Equally important is the feeling that those early travelers, as well as modern travelers, experience. Someone can stand at Iron Springs or Hole In The Rock or on the trail between Thatcher and Tyrone and see the Spanish Peaks or other views much as they would have appeared in the 19th Century. They can also stand and still experience the same quiet of the trail, punctuated only by the wind or a bird. Now, picture trying to experience the historic sense of the Santa Fe trial while a helicopter zooms over your head or flies between you and the Santa Fe -- and the view -- view.	As noted in the response to comment #2, Fort Carson considers requests for adjustment to Route Hawk in their annual re-evaluation and, in response to comments received on the Draft EA, the Installation has initiated actions to formally remove the H7 to H8 segment of the route, which is that segment that paralleled the Santa Fe Trail.
Where is the combat landing strip on the PCMS? In the contonment area which borders Highway 350 at one of the areas where it is closest to the Santa Fe Trail. Even if only a portion of the nearly 120 -- Apache and Osprey helicopters, 700 vehicles and 2500 troops are at the landing strip there will be a significant negative -- negative impact on the Santa Fe Trail. The Santa Fe Trail has been one of the major heritage tourism components of the Purgatoire River Region for decades. Increased efforts to protect this important historic trail resulted in the National Parks Service, National Trails Office doing a pilot viewshed analysis of the trail in Otero County. Efforts currently in process include a project by the National Trust for Historic Preservation to survey	Please see the response to comment #114 regarding the PCMS Combat Assault Landing Strip.

sections of the trail, prepare a National Register nominations and conduct a viewshed analysis of the trail outside of Otero County.	
In addition to the National Trusts, other groups working on the project include the National Park Service, National Trail Office, the National Park Service, the U.S. Forest Service, the Santa Fe Trail Association, the Colorado SHPO -- SHPO, land owners, Otero County and other -- the other counties. The ort -- the Army was invited to participate in that, they attended the first meeting and declined to continue.	Thank you for this information. Though the Army has not participated in all meetings, this effort described is an important one with key organizations involved in ensuring the continued preservation of this important historic resource. The Army appreciates the invitation to participate in these important discussions and looks forward to being notified of additional meetings and the outcomes of this collaborative effort. Since the first meeting; however, the Army has not received notification of additional meetings held with this group of partners. The Army looks forward to notification of future meetings as well as products resulting from these endeavors.
The ranchers and landowners have undertaken these projects not because they legally are required to, but because they know and love the historic resources, way of life and landscape. The local people also understand that people throughout the world are interested in the history and modern experience of cowboys, cattle ranches and the western way of life.	
In contrast, the Army and Fort Carson have established a pattern of avoidance and failure to meet the legal requirements of the National Historic Preservation Act, Section 106 or the Environmental Assessment and the EIS process. According to both federal law and Army regulations, Fort Carson is required to pre -- prepare an Integrated Cultural Resource Management Plan every five years, the most recent ICRMP expired in 2006.	Please see the response to comment #121 regarding the ICRMP and PA, whose original update and completion goals, respectively, were not met. Please also note that the requirement for an Army installation to update its ICRMP every five years is an Army regulatory requirement; this requirement is not driven by a Federal statute, associated Secretary of the Interior regulation, or Advisory Council on Historic Preservation regulation.
The CAB EA, which we are talking tonight, references the Grow the Army EIS, which states in Section 5.1 that, "The ICRMP and a Programmatic Agreement will be completed before any site-specific NEPA for implementing the CAB stationing at Fort Carson." Again, the Army has failed.	
The Army is required to use a cultural landscape approach when	Cultural landscape is a component of cultural resources and; therefore,

considering historic resources, yet in the 195 pages of the CAB EE(sic) -- EA the term cultural landscape is not mentioned once. In the 623 pages of the Grow the Army EIS, which is referenced numerous times in this EA, the term cultural landscape appears once in a sentence, quote, "For archaeological sites, once identified, each site is recorded, evaluated for eligibility on the National Register, and the cultural landscape is analyzed." That was all it was mentioned in the 623 pages. The cultural landscape approach is an Integrated Cultural Resource Management approach, it is required, but that may also explain why Fort Carson's ICRMP plan expired in 2006, and, although promised many times, still does not exist in 2012. In addition, the Santa Fe Trail is not mentioned either in the G -- Grow the Army EIS or the CAB EA, and the terms viewshed and soundscape also do not appear once in either document.	the Army does not conclude that cultural landscape was not considered in our analysis.
Over the past five years we have retained numerous of these documents and attended dozens of these meetings, every time Fort Carson has wanted to expand the PCMS -- expand its use, change its use, et cetera -- they have internally come up with the conclusion that there will be no adverse effect, however, the reality is very different. Section 800.5, Assessment of Adverse Effects of the National Historic Preservation Act, Section 106, states, quote, "An adverse effect is found when an undertaking may" -- term may -- "alter directly or indirectly any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association." Item V states that this includes "introduction of visual, atmospheric or audible elements that diminish the integrity of the property -- property's significant historic features."	As noted in Section 4.8.2.2, consultation has been initiated with the Colorado SHPO on CAB training. NHPA consultation will assess and mitigate any adverse effects to cultural resources.

Section 5 -- 1508.27 in NEPA identifies the term significantly and states that NEPA requires both consideration of context and integrity -- intensity, it is required that the unique characteristics of the geographic area, such as proximity to historic cultural resources and prime agriculture lands, also must be considered. Also to be considered is the degree to which the action may adversely affect districts, sites or objects eligible -- eligible for listing on the National Register. While Fort Carson may feel that they can ignore federal laws and their own Army regulations when dealing with historic resources, they cannot. More importantly, they can not ignore the law when dealing with the rights of private landowners or the historic resources on nonmilitary property. The Army's proposed use of this region for the CAB not only will have an adverse effect on the historic sites, rural historic landscapes and the Santa Fe Trail, it will also negatively impact our economy. For 30 years we have lost the economic benefit of the cattle production on lands which are now the current PCMS. The Army's plan for the CAB and any type of expanded use or physical expansion of the PCMS will damage the economy through disruption of well-established birding trails and activities, impacts to cattle ranching, impact to agritourism-- and the loss of economy from heritage tourism. The efforts which have been undertaken are in the process now to document and protect the historic resources that contribute to that agritourism and heritage tourism. Work is continuing by Colorado Preservation Inc. to develop heritage tourism and educational opportunities related to rural historic landscapes and the ranching way of life. These efforts include driving tours -- one being Highway 350 between La Junta and Trinidad -- interpretive signage, publications and free podcasts addressing subjects such as	Please see the response to comment #119 regarding economic impacts.

homesteading, cattle ranching, transportation and environment and causes of the Dust Bowl. These projects are being funded by the State Historical Fund, CDOT, and using Federal Transportation Enhancement Funds. As usual, not only have these factors not been fully considered by the Army, they have been completely ignored. The CAB will -- impact not only individual historic resources, but will have a significant negative impact on these in -- on these historic rural landscapes. While the Army may state or promise that CAB helicopters will limit their flights to the PCMS military operations area, or the route between Fort Carson and PCMS, there will still be a significant impact to historic resources. The MOA includes the Purgatoire River Canyon, many of the side canyons and land surrounding the PCMS. It also includes Picketwire Canyon Lands, home to the Rourke Ranch Historic District and the dinosaur tracks, where military planes and helicopters already are flying at low levels, and have been photographed landing on the Comanche National Grasslands and the dinosaur tracks. The MOA also covers the Santa Fe Trail from just west of Timpas all the way to Tyrone, which happen to be the least developed section of the trail with the greatest level of historic integrity. The Army's NEPA Analysis Guidance -- Guidance Manual lists quicklook questions to help determine need to determine direct and indirect effects of the proposed action. Some of these questions, is a property a contributing feature in a National Register eligible site or a historic district or a cult -- or cultural landscape? Is the property near the viewshed of a National Register eligible or listed historic property, district, cultural landscape or archeological site? Is an additional cumulative effects analysis needed? Have previous actions incrementally changed the environment of the buildings or	Please see the response to comment #2 regarding the PCMS MOA.

its surrounding? Does the proposed action have effect on historic district as a whole? The answer to each of these questions is yes.

Section 4.3.3 of the Section 106 Process and Impact Analysis Step states, "The National Historic Preservation Act and NEPA compliance are separate and parallel processes." Section 106 and its implementation regulations state that "an undertaking has an effect on historic properties when it alters those characteristics of the property."

The question becomes does the undertaking have a potential to affect historic properties, if NE -- if so, NEPA review may be -- must be initiated at this point. The answer is yes.

(A discussion was had, off the record, between Mr. Rob Ford and Ms. Rebecca 12 Goodwin.)

I am almost done, I promise. I promise. Okay.

Step 2 in -- 2 in this same area says that geographical boundaries should include the cultural landscape of the installation's cultural resources, this includes the affected area as well as the distribution of that resource in the region. For cumulative effects analysis boundaries should be expanded to the scale of the human communities, including neighborhoods, rural communities and known or comparable eligible historic districts.

Under the noise section, questions include will the proposed action crease(sic) -- crease – create noise zones that will expand off the -- installation? Are there any human populations or populations of sensitive animal species within the noise zones? Has the adjacent civilian community complained about any noise associated with past or ongoing activities? Again, the answer is yes to all those questions.

As noted above, consultation regarding the proposed action has been initiated with the Colorado SHPO. For your information; however, please be aware that the Advisory Council on Historic Preservation specifically allows agencies to combine the requirements of Section 106 with the NEPA process (36 CFR 800.8(c)). This is also an approach encouraged by the Council of Environmental Quality.

If the E level -- EA level analysis identify any direct or indirect effects that cannot be mitigated or should contribute to the cumulative effects, a more rigorous impact analysis is required and should be evaluated in the EIS level of analysis. For Fort Carson to determine that an Environmental Assessment is sufficient in this case and that there should be no significant -- no chance of significant adverse effects from the CAB is convenient, but ridiculous, it is time for them to follow the laws and Army regulations which apply to every other military base. Thank you.	Please see the response to comment #105 regarding the level of NEPA analysis.

ID: 125	**Date:** 1/24/12	**Name:** Daniel Davis	**Method:** Transcript	**Other Notes:** Transcript – La Junta

Comment	**Response**
I am a retired Sergeant First Class of the U.S. Army, I am not a environmentalist, I probably am an anti-environmentalist, but I love my country, I love our Constitution, and I love the land, I love all the species that God created for us. Before I came I remembered from my youth a study about dairy cattle and low-level flying aircraft, so I typed that in to Google, in three seconds there was about 200 studies about low-level flights, helicopters, fixed-wing aircraft, as well as jets. These were different studies studying different species, every one had different kinds of responses to these low-level flights, some more than others. I can't go into all of them probably right now, so I will just go through a few of the results that they found. Milk production actually stops in cows. There's gestation harm in several different species. It raises the heart rate of several species. It interrupts thyroid mechanism, causes them not to eat. Birds are disoriented, usually temporarily. Nesting routines maybe changed permanently. And I mentioned that gestation in cattle in particular is affected. And even other animals as -- as widely disbursed as the snake, the toads, rabbits, all show behavior changes from low-level flights, that's not to mention what it does to us humans (indicating).	Thank you for your comments. The Army recognizes that noise can potentially affect people, livestock, and wildlife. The Army's analysis, which incorporates the continued implementation of the Installation's "Fly Neighborly" program, has concluded that the impact of the proposed action would be less than significant. The Installation will continue to maintain its noise complaint hotline to address the concerns of the public.

And if you have ever experienced a helicopter flying low, whether you're a veteran or not, we have reactions to it, it's either irritation or panic or fear, depends on your experiences perhaps. If you're riding a horse it may put you in touch with gravity real quick. So that's really about all I have to say, thank you.	
ID: 126 **Date:** 1/24/12 **Name:** Kevin Lindahal	**Method:** Transcript **Other Notes:** Transcript – La Junta
Comment	**Response**
Becky mentioned about Santa Fe Trail Association, I just recently accepted the position of the Historic Santa Fe Trail Preservation chairperson and I'm just getting up to speed on that, I'm learning real fast there's a lot of things that we need to be looking at, and, so, with that a little bit of an introduction I wanted to kind of share a story, and this is July 30th approximately, last year. I was on Comanche National Grasslands and was headed south in the Rockfall Allotment area, and I had the radio on, I was kind of out there by myself, wasn't paying much attention, and all of a sudden there was a whine in the background I couldn't identify what it was (indicating). I reached over and shut the radio off, I happened to look up in my rearview mirror and there was Osprey coming in low and slow (indicating). As you just mentioned, definitely gets your heart going. I don't know how high off the ground he was, but I could clearly see him in the rearview mirror, and I could easily identify items on the belly of the -- the craft. They flew over, they went on -- just over the little rise and landed, I'm assuming it was on Piñon Canyon Maneuver Site land, I could not visually see where they landed (indicating). So it is unsettling when you're not expecting that. And, so, back to my introduction as the Preservation chairperson for Santa Fe Trail Association I can only wonder what people's reaction will be when they're out on the Santa Fe Trail and some kind of low craft comes over and it startles them.	Thank you for your comment. Please see the response to comment #124.

So that's kind of my little story around July 30th last year that happened, so I know firsthand what -- it can be very startling and -- and when you're -- especially when you're not expecting it. Anyway, that's all I have to comment about, thank you.	

ID: 127	**Date:** 1/24/12	**Name:** Beverly Babb	**Method:** Transcript	**Other Notes:** Transcript – La Junta

Comment	**Response**
Beverly Babb, and thank you for having me, and I agree very much with what Jim Herrell and, also, what Becky said, I have just very few notes to add to that. Because I'm much older than most of you here, and Becky's father is not here to help on this kind of thing, I would like to talk a little bit about how it was in the early '30s, because my family brought me down here when I was two weeks old and -- so I don't remember a great deal about that, but I do remember the next five years, quite a bit about that. We were living here in La Junta, this is not an area which was the prime sight of the Dust Bowl, but it was pretty dang close, and for those five years what I remember the most about my mom was the very wet handkerchief that she carried over her face on a daily basis because she couldn't breathe (indicating). I remember stories later from Great Aunt Stella, who was a chiropractor down here at that time, about how dirty we children always were. When you're one to five years old you crawl around on the floor a lot, we were dirty. And I remember the feelings of -- of my fingers and my knees crawling on the floor. And sitting in my dad's front window -- as he was a chiropractor also -- but sitting in the front window -- which was about two feet off the ground -- and sliding across on the sand and gravel -- or sand and dust that were on those window seals (indicating).	Thank you for your comment.

The reason for that is because our soil is so thin down here, it's the reason why we had the Dust Bowl flows, and even to this day, and it's where -- we live right close -- right next to the Lowe's Family Ranch out south and east of -- or west of where we are sitting right now, when the kids go out on their motorcyles and are riding across that land out there is dust at least 10 feet high all the time (indicating). I love it that the kids have a place to ride, but when you think of the difference between a tractor or any kind of aircraft landing on that kind of soil it's kind of dangerous, it really means that we could have another Dust Bowl just like we had then. Two years ago, and it was the 17th of the month, in the spring, the neighbors across the street from us, Danny Johnson -- their house is literally across one street -- and the dust that we had for about five minutes flat we physically could not see any part of their house (indicating). That, too, is scary. It's scary enough to say what's it going to take in the way of material being moved across our soil out south to create that same kind of situation. Okay, that's all of my personal part of the story, but one of the things that I did yesterday, I was at the legislature, and it was because we had the Tourism -- Colorado Tourism Association was having a very big woohoo with 150 people sitting in the audience, and we were told that what is driving the engine -- the economic engine today in Colorado is tourists. If that is so, then we're going to have to be pretty careful about how we treat our countryside around here, because what we would like to have is more people come down on the Santa Fe -- or go on the Santa Fe Trail, we want more people -- I know the Staffords are here tonight, I am here tonight, there are several folks that do the Amtrak Trails and Rails Program, and those people that are riding that Amtrak train, that are going down right along 350, are looking at our countryside (indicating). They're not coming to see helicopters going over, they're coming to look at our view, they're coming to see the Santa Fe Trail, and that's	As noted in the response to comment #2, Fort Carson considers requests for adjustment to Route Hawk in their annual re-evaluation and, in response to comments received on the Draft EA, the Installation has initiated actions to formally remove the H7 to H8 segment of the route, which is that segment that paralleled the Santa Fe Trail.

what's going to bring the economy back up, I feel, in this part of the country. Let me see if I have looked at everything or said everything. (Reviewed document.) Audubon. One of my projects that I work on is Audubon -- that's the National Audubon Magazine -- and in that magazine there are pictures of all the beautiful places around the world that you can go, but once a year we, in Southeast Colorado, put a beautiful ad -- about six pages worth -- in the National Audubon Magazine, and from that -- you know the little card that is in a magazine, you can sign your name and address and send it off to National Audubon -- well, Audubon send it to me, and I receive these little cards and I stick it in an envelope -- a six-county map of Southeast Colorado, a map of the Santa Fe Trail, a birding list -- because that's what they're called -- asking for, and right now the snow goose festival, a little ad, and I send that out (indicating). La -- this comes in every Tuesday to me, the -- these mailing requests. Last week we got 48 requests -- hmm, yummy -- this week we only got 26. That was yesterday -- no, that's today. Tuesday is today. Those things get sent off. We're hoping to have an awful lot of people -- we have been doing this for a number of years and we're getting responses. And, again, the economy we think is going to be impacted by tourism and, so, we have to take pretty good care of this country, we don't want another Dust Bowl. I need you to know that I like what Jim Herrell said about how we support -- strongly support our Service, we just want to do it right, folks. Thank you very much.	
ID: 128 **Date:** 1/24/12 **Name:** Stan White	**Method:** Transcript **Other Notes:** Transcript – La Junta
Comment	**Response**

Most of us were raised to do the right thing -- not all of us were, but most of us were raised to do that -- and if we didn't do the right thing -- if you cheated your brother and your dad found out about it you paid for it with a little hide generally, so we were -- we were taught not to do that kind of thing, and we think that that's -- the world should be -- the way the world should be, and it -- it is, but it's not the way that it is in this situation today. The right thing will not be done unless we stand up. It just won't be. You're going to see your friends and your neighbors, they're going to get a knock on the door from the -- from the Federal Marshall, they're going to give them 30 days to get out of there. It happened once before and it'll happen again unless we stand up and do what needs to be done. We have a couple of avenues to do that.	Thank you for your comment.
And I -- I cannot tell you how heavy my heart is tonight. This is not -- this is not a meeting about a few airplanes, this is a meeting about expansion. This is expansion, very plain and very simple. We all know that. We know 700 extra vehicles down there is -- is sure enough expansion, and we know the route you get -- it's been said here before you -- you get too many people, you got to have more country. That's all this is about very plain, very simple, understand that. We sit tonight in the audience of a very powerful man. This fella sitting in the fatigues is a very powerful man (indicating). Singly he is responsible for saying, "I see no problem with this, "and it flies if he says that. Now, he's not -- he's got a pusher, there's somebody making him do it I assure you, but his is the signature that will land on the paper that says he sees no problem, no impact on human environment to -- if -- should this happen (indicating). Realize that's who we're sitting in the presence of. He's the man (indicating).	The proposed action does not include expansion of Army lands. Per Section 2.3.3.5, approximately 50 wheeled support vehicles would deploy from Fort Carson to PCMS one time per year for each BCT stationed at Fort Carson; therefore, it is anticipated that there would never be an occurrence when 700 wheeled vehicles of the CAB would be at PCMS simultaneously.

I assure you he will find no reason to abandon CAB. Anybody that doubts that just hang around a little while. Unless we defeat this, we the people defeat this, we stand up, everybody in here stands up and works on this deal, it's going to happen. I can't tell you how important that is. Now -- now, you may walk out of here shaking your head, saying, "I don't know what I can do," well, if you don't know what you can do then there's some -- there's a couple of outfits that are working on this, and one is the PCEOC and the other one is Not 1 More Acre, if you don't want to personally, then contribute to those people, ask them what you can do, contribute some money to them. One -- one of those entities brought the Army to federal court and -- and turned this around one time, and that took a lot of money. Some of us have donated and some of us haven't. There -- there's going -- there's going to be a lot of work to be done, we just can't sit by and watch this happen 'cause it's happening tonight, this -- that's what this is about, it -- it's about expansion, we all know that. Southeast Colorado will be taken pretty much in its entirety, this is just one more little step here tonight. (Reviewed document.)	As noted in Section 1.1, this proposed action is for implementation alternatives in response to the CAB stationing decision already made by Headquarters, Department of the Army.
I would encourage you to sign that -- that private property thing that was laying there in your chair, or if you have a chance to get one at the door or whatever, and the reason for that is you have no standing if you do not. They're here to ask you -- they're here to ask Southeast Colorado, the few of us that showed up, whether or not they can go ahead and fly under 200 feet, the federal has -- the Supreme Court has said on many occasions that that is your domain, they're here asking Southeast Colorado, "Can we have it," and most of us didn't show up to say no, but -- but en -- encourage your neighbors to sign that thing, and sign it yourself. Understand	Please see the response to comment #2 regarding private property rights and airspace.

that there may be a time that that's all you have to -- you -- you show that to the judge and you're the guy that -- that -- that it can be very important. Thank you for your time.	
ID: 129 **Date:** 1/24/12 **Name:** John George	**Method:** Transcript **Other Notes:** Transcript – La Junta
Comment	**Response**
I'm not a very good public speaker either, I wouldn't make a good politician, I'm too short, to the point. I would like to start out with a -- it's a little critter we call a prairie dog, it's quite a rodent, for you people that are not aware of what is, you would have to see the destruction this thing can do and the way it can make the ground blow. I have got pictures of buffalo grass on Comanche National Grasslands, some of it beside private property, where this thing -- if you didn't know better you would think it was a farm -- a field being farmed from nothing but just this little old rodent, it's, I don't know, maybe three pounds (indicating). Our land is very fragile, they -- even our Forest Service recognizes that. They've come out and put signs where they want the public to drive on certain areas, certain trails throughout these pastures because of the land being so fragile. And I know when I was brought up no meant no, I knew what no meant, I don't know what it's going to take to convince the higher-ups, or whoever, that no still means no in this country. I -- I was never a veteran, but I spent six years in the military, I took an oath, something about -- I don't remember how that all went -- but protect the country from foreign and domestic, and in all those years since then and at that time I never thought that would mean our own government, our own Army that we would be fighting. Then, like I said, I don't have much, I'm not a public speaker, but	Thank you for your comment.

that's about all I've got to say.				
ID: 130	**Date:** 1/24/12	**Name:** Paula Ozzello	**Method:** Transcript	**Other Notes:** Transcript – Trinidad
Comment			**Response**	
See comment #183.			Thank you for your comment. Please see the response to comment #183.	
ID: 131	**Date:** 1/24/12	**Name:** Kathy Hill	**Method:** Transcript	**Other Notes:** Transcript – Trinidad
Comment			**Response**	
Thank you very much, but she [Paula Ozzello] already covered everything I was going to cover. Thank you.			Thank you for your participation in this NEPA process.	
ID: 132	**Date:** 1/24/12	**Name:** Lon Robertson	**Method:** Transcript	**Other Notes:** Transcript – Trinidad
Comment			**Response**	
As Paula stated, I think that the majority of us would request and support the 5,000 foot level that flight would have over private property, and look to her, the representatives, Environmental Council, as well as our county commissioners who set the land zoning use for our property as well as the elevations and -- and land use above our property.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

As a property owner we have a right to that airspace that's immediately adjacent to our property. Numerous courts have ruled in conformity with the 1946 Supreme Court decision to hyper-adjacent airspace under 500 feet belongs to the land and to the landowner. The attempt by the Army to use this airspace constitutes the taking of private property. If we are to use this airspace for their nap or low-level flying then that constitutes trespass if we so advise them that that is what they are doing.

So in doing so we have created a format that I'll read, and we have a number of owners that will be listed here, and we will also be presenting these to our elected representatives.

I would also request that anybody else who's making comment tonight also forward your requests to your elected representatives, not just to -- input into this NEPA process and make a comment on this -- in this form, but also to make known to our elected representatives what we are saying tonight.

"Private property rights and airspace declaration. "Whereas I am a private property owner in Las Animas County, in the State of Colorado, United States. I have the right to use my private property, including that airspace which is -- airspace which is super-adjacent to that property insofar as projected and potential use dictates and to a level not to exceed 500 feet above said private pro -- property;

"Whereas alternative energy production and U.S. energy independence are essential to our national security and hold great potential for our regional economy -- economic development;

"Whereas it is my desire to potentially utilize my property for, but not limited to, power generation through means including wind and solar;

"Whereas present technology requires a minimum unimpeded airspace for wind generation towers; "Whereas potential for a new technology will allow for even larger wind generators and other as yet unknown means to generate power from natural sources; "Whereas power distribution also requires unimpeded airspace; "Whereas the value of the de -- development of these resources continues to appreciate; "Whereas trespass on super-adjacent private property airspace is akin to trespass on surface private property and would constitute a taking of private property; "Therefore I am declaring and making known my constitutional rights to the private property airspace above my property and assert a boundary exists to all others so as to allow for those uses I have determined or any other future use that I determine may require it. "I hereby place the Department of Defense, which is to include, but not be limited to, the Army and its private civilian contractors on notice that I am asserting my private property rights to use the airspace above my property to a given altitude not to exceed 500 feet above the highest point of my property. I'm also therefore restricting use by them or anyone else of that airspace over my property to a level of not lower than 500 feet above the highest point of my property. "Let it be known that I will energetically defend this private property assertion from anyone that would challenge it by direct trespass or otherwise, and thus attempt to take away my private -- my private property rights as a U.S. citizen." My name is Lon Robertson, Branson, Colorado.	

Another landowner Huerfano County, Gerald Quartiero, same form, same statement. Another landowner, Huerfano County, Colorado, Shelley Quartiero, same form, same statement. Another landowner, Huerfano County, Colorado, Cheryl Harwig, same form, same statement. Another landowner of Huerfano County, Colorado, Darryl Harwig – (Unidentified female -- same form, same statement. Another landowner of Huerfano County, State of Colorado, Jay Scott Davis. (Two unidentified females handed documents to Mr. Lon Robertson.)(A discussion was had, off the record, between Mr. Ford and Mr. Robertson.) (Unidentified female handed document to Mr. Lon Robertson.) Jay Scott Davis, Huerfano County landowner, same form, same statement. Rosella Orr, Huerfano County, same form, same statement. Alley Homerding, Huerfano County, same form, same statement. Jill Davis Homerding, Huerfano County, same form, same statement. Bobby Quick, Las Animas County, same form, same statement. Norman Monte, Pueblo County, same form, same statement. Monica Johnson, Otero County, same form, same statement. Lorie Monte, Pueblo County, same form, same statement. Florence Jackson, Las Animas County, same form, same statement. Everett Jackson, Jr., Las Animas County, same form, same statement. M.E. Broce, Las Animas County, same form, same statement. Anita Robertson, Las Animas County, same form, same statement. Ed Spangler, Otero County, same form, same statement. Nicholas Palmer, Prowers County, same form, same statement. Kelly McGuire, Las Animas County, same form, same statement. Ella Biber, Las Animas County, same form, same statement. Leslie White, Las Animas County, same form, same statement. Mary Ellen White, Las Animas County, same form, same statement. (Reviewed documents.) Devon McFarland, Las Animas	

County, same form, same statement. Joanna Nieman, El Paso County, same form, same statement. Rachel Snyder, Las Animas County, same form, same statement. Nora Gilstrap, Las Animas County, same form, same statement. Douglas Holdread, Las Animas County, same form, same statement. Carol Vanderwall, Las Animas County, same form, same statement. Joan Sandler -- Sandlin -- excuse me -- Las Animas County, same form, same statement. Barbara Richardson, Las Animas County, same form, same statement. Cynthia Plosky, Las Animas County, same form, same statement. Amanda Thompson, Las Animas County, same form, same statement. Richard Thompson, Las Animas County, same form, same statement. Kay Eberhart, Las Animas County, same form, same statement. Dee Bernhardt, Las Animas County, same form, same statement. Marilyn Lutzer, Las Animas County, same form, same statement. Harlan Lutzer, Las Animas County, same form, same statement. Linda Perry Las Animas County, same form, same statement. Thomas Perry, Las Animas County, same form, same statement. Kenneth Arko, Las Animas County, same form, same statement. Patricia Keck, Las Animas County, same form, same statement. Carrie Apple, Las Animas County, same form, same statement. Howard C. Sumpter, Las Animas County, same form, same statement. Loretta Goode, Las Animas County, same form, same statement. I have three more. Bruce Nittler, Las Animas County, same form, same statement. Ray Martin, Las Animas County, same form, same statement. Howard R. Broce, Las Animas County, same form, same statement. Now, these are just a few of those that we have just collected over the last few days, so I think it's safe that we need to put everybody on notice that we, as private landowners, appreciate and want to preserve our private property rights and will do so, and we would like to have this entered into the record to document that fact (indicating). Thank you.	

ID: 133	**Date:** 1/24/12	**Name:** Steve Wooten	**Method:** Transcript	**Other Notes:** Transcript – Trinidad
Comment			**Response**	
I have a -- a comment I want to add to the Southeast Colorado Environmental Council, and that is because the adjacent federal- and state-owned lands in Las Animas and Otero counties are not of contiguous nature but are an intermix of private, federal and state ownership, and the commerce does take place on those lands for the production of agriculture, as well as multiple uses, we, the Pinon Canyon Expansion Opposition Coalition and private landowners endorse that the 5,280 foot minimum height be maintained over the nonmilitary federal- and state-owned lands adjacent to the Piñon Canyon Maneuver Site and within Las Animas and Otero counties. Also for the record I would like to submit my copy of the Private property right and airspace declaration. I am in Las Animas County. I also have from Las Animas and Huerfano County Annette Roberts, same format. In Las Animas and Huerfano County, Tim Roberts, same format. In Las Animas County, Rosie Broce, same format. In Las Animas County, Nancy Jackson, same format. In Las Animas County, Joy Pierce, same format. Las Animas County, Mike Pierce, same format. In Las Animas County, Frank Sumpter, same format. In Las Animas County, Brett L. Balenciaga, same format. In Las Animas County, Nancy Balenciaga, same format. Las Animas County, Gary Saddoris, same format. Las Animas County, Phil Ballard, same format. In Las Animas County, Frankie D. Pierce, same format. In Las Animas County, Jack Pierce, same format. In Las Animas County, Lee V. Hollingsworth, same format. In Las Animas County, Carol Combs, same format. In Las Animas County, Mars Combs, same format. In Las Animas County, Judith A. Goode, same format. In Las Animas County, Bud Littlewood, same format. In Las Animas County, Lester W. Jackson. We respectfully thank you for taking these names in as part of the declaration of the private property airspace.	Thank you for your comment. Please see the responses to comments #2 and #3.		

ID: 134	**Date:** 1/24/12	**Name:** Laneha Everett Canyon Journeys and Everett Beef	**Method:** Email	**Other Notes:** N/A

Comment	**Response**
I would like to respectfully submit my comment during the public comment period for the Fort Carson Combat Aviation Brigade Stationing Implementation DEA. January 24, 2012 I Laneha Everett of Pritchett, CO would like for it to be recorded on the public record that in regards to implementation of the Brigade Stationing at PCMS and the DEA, heritage tourism and the economic impact of similar activities is significant in the region as an industry and is growing stronger every year through recent efforts of several non-profit organizations in the region including but not limited to Canyons & Plains of SE Colorado and Colorado Preservation Inc. Both have put great strides forward in the area of heritage and cultural tourism for the region of SE Colorado and many of the areas of interest are near the PCMS. This includes the Timpas unit of the Comanche National Grasslands, the Santa Fe Trail, private businesses, guest ranches, and sites along the Colorado Birding Trail. As economic development goes in rural areas, there is nothing fast about it. It takes a long time and a lot of effort on the parts of all partners and interested parties to establish a vital beginning to economic stability and sustainability in a rural area. However, it is essential that economic stability and sustainability is there for rural communities across rural america. Why? Because this is where a huge portion of our "National Security" is supplied from - the resources of food, fuel, and staples for many other industrial goods. Without these items being produced, America is subject to uncertain methods and sources for these supplies making us a much weaker target to those outside of our borders. Why does this all matter in terms of heritage tourism as an economic driver for rural communities? The efforts of the groups towards the goals of heritage tourism as a viable industry in SE Colorado have been in	Thank you for your comment. Please see the response to comment #119.

place for at least 10 years and those coming after more historic efforts previously tried. SE Colorado has garnered much attention and awards due to the efforts of Canyons & Plains, the PCEOC, Colorado Preservation Inc., because we have made a point to work together toward a common goal that mattered to all of us – economic sustainability and viability. Now, to see these long standing efforts threatened by the possibility of damaged environment due to overuse and potentially irresponsible use of a fragile land and resources as well as threatening our unpolluted views and audio "views" of the landscape is disheartening to say the least. Please, I respectfully submit to you that we know that the US Army works very hard to train it's troops to the best of it's ability, and we appreciate that. But we, as citizens of the country those troops are trained to protect, work just as hard to maintain a way of living whose by-product supports those troops through the production of agricultural products that make having an army possible. Help us help you! We want to have stable, viable and vibrant rural economies in SE Colorado. Please seriously consider the impacts that noise and visual pollution have on our efforts of tourism. Also, the resources we have in SE Colorado in terms of historical, natural and cultural resources are invaluable in many respects and occur in no other place of our country or world history than in this part of the state of Colorado. We are a resource rich area, those resources however, when taken for granted can have serious consequences. And while you have a training base here, you are only proposing to utilize it for 4 months of the year, we are the ones that will pay for the consequences of your actions and decisions while you are and are not here. We live here for 12 months out of the year. Help us help you! Make smart decisions regarding our lives, our livelihoods, and the places we love.	

ID: 135	**Date:** 1/24/12	**Name:** Jeremy Rochester	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 136	**Date:** 1/24/12	**Name:** Heather Pearce	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 137	**Date:** 1/24/12	**Name:** Patrick Shannon	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 138	**Date:** 1/24/12	**Name:** Calvin Edwards	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 139	**Date:** 1/24/12	**Name:** Martha Edwards	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 140	**Date:** 1/24/12	**Name:** Joanna Patterson	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 141	**Date:** 1/24/12	**Name:** Terry Everett	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the	

			response to comment #2.	
ID: 142	**Date:** 1/24/12	**Name:** Jennifer Everett	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 143	**Date:** 1/24/12	**Name:** Brady Burnham	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 144	**Date:** 1/24/12	**Name:** Arni Burnham	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 145	**Date:** 1/24/12	**Name:** Lenda Sumpter	**Method:** Letter	**Other Notes:** Submitted at public meeting – La Junta
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 146	**Date:** 1/24/12	**Name:** Randy Susan Bader	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 147	**Date:** 1/24/12	**Name:** Kelly C Bader	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 148	**Date:** 1/24/12	**Name:** John M Carson	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 149	**Date:** 1/24/12	**Name:** Lisa Morrelli	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 150	**Date:** 1/24/12	**Name:** Ruben S. Rael	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 151	**Date:** 1/24/12	**Name:** Esther Frick	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 152	**Date:** 1/24/12	**Name:** Cheryl D. (name illegible)	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 153	**Date:** 1/24/12	**Name:** Clara Lee Stafford	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 154	**Date:** 1/24/12	**Name:** Walter Edward Stafford	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the	

			response to comment #2.	
ID: 155	**Date:** 1/24/12	**Name:** Richard Cox	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 156	**Date:** 1/24/12	**Name:** Susan G Cox	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 157	**Date:** 1/24/12	**Name:** Janey Swentzell	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 158	**Date:** 1/24/12	**Name:** Mark W Jackson	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 159	**Date:** 1/24/12	**Name:** Cliff Johnson	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 160	**Date:** 1/24/12	**Name:** Geston D. Lusk	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 161	**Date:** 1/24/12	**Name:** Bonnie E. Lusk	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 162	**Date:** 1/24/12	**Name:** Rebecca Goodwin Edgar Ranch, Inc.	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 163	**Date:** 1/24/12	**Name:** Bette McFarren	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 164	**Date:** 1/24/12	**Name:** RC Patterson	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 165	**Date:** 1/24/12	**Name:** John George	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 166	**Date:** 1/24/12	**Name:** Lois Freidenberger	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 167	**Date:** 1/24/12	**Name:** Sylvia Staker	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the	

			response to comment #2.	
ID: 168	**Date:** 1/24/12	**Name:** Gary Hall	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 169	**Date:** 1/24/12	**Name:** Burnette Patterson	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 170	**Date:** 1/24/12	**Name:** Robert Patterson	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 171	**Date:** 1/24/12	**Name:** Daniel R. Davis	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 172	**Date:** 1/24/12	**Name:** Nancy Bennett	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 173	**Date:** 1/24/12	**Name:** Casey Evertt	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 174	**Date:** 1/24/12	**Name:** Robert Schwinger	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 175	**Date:** 1/24/12	**Name:** Laneha Everett (name partially illegible)	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 176	**Date:** 1/24/12	**Name:** Tim Williams	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 177	**Date:** 1/24/12	**Name:** Dean Babb	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 178	**Date:** 1/24/12 (Date on original sheet was 1/24/10; Army changed date)	**Name:** Peggy Babb	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 179	**Date:** 1/24/12 (Date on original sheet was 1/24/10; Army changed date)	**Name:** Peggy Babb	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 180	**Date:** 1/24/12	**Name:** Chelo Ludden	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 181	**Date:** 1/24/12	**Name:** Gary Ludden	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 182	**Date:** 1/24/12	**Name:** Nancy Elizabeth Vedovi	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 183	**Date:** 1/25/12	**Name:** Paula Ozzello	**Method:** Letter	**Other Notes:** Submitted at public meeting - Trinidad
Comment			**Response**	
The Southern Colorado Environmental Council has reviewed, analyzed, and is submitting our findings regarding the above captioned environmental assessment. We are requesting a specific site study to be done at Pinon Canyon Maneuver Site. To adequately measure the installations sustainability principles and impact to existing infrastructure and maneuver lands it is only practicable that a site specific study be done. The timeline for complete activation of the Combat Aviation Brigade allows for such a study to be done. It is our assessment after the two wildfires this last summer that Fort Carson and PCMS personnel and working			Thank you for your comment. While PCMS is a unique location, CAB operations at PCMS would not have the type of substantial independent utility that would call for separate analysis. CAB operations are best assessed as a single conceptual and practical undertaking, and they must be holistically assessed. In that process, we have reviewed and studied and considered the unique characteristics of the PCMS location.	

agency partners do have the expertise to conduct a competent investigation that would attest to all necessary concerns regarding sustainability of training and sustainability of the eco-system of the maneuver site. The past 30 years will attest to preventative measures definitely work for better, then corrective measures down the road. The end results being a financial secure future.	
Section 2.3-1-Live-fire and Maneuver/Flight Operations Training and Training Strategy-The SCEC has started a process with the Garrison to secure a common ground on issues regarding regional air-space, specifically requesting consideration of revisions to Fort Carson Regulation 95-1 Aviation: Local Flying Rules and Procedure to include the following: When flying over the private sector of the Military Operations Area shown in Figure 4.11-2, Pinon Canyon Maneuver Site MOA and surrounding private sector of Las Animas, Huerfano and Otero Counties, AGL of 5,280 feet to 8,000 feet be maintained at all times. Nap of the Earth flight, Contour Flight and Low Level Flight be completely prohibited in the private sector of Las Animas, Huerfano and Otero Counties. It is our contention that there is adequate air space over Pinon Canyon Maneuver Site and adjacent federal land to do all necessary flight training in regards to: Nap of the Earth Flight Contour Flight Low Level Flight We are not suggesting that these very important training maneuvers are prohibited in the MOA completely; but to prohibit them over the private sector that is included in the MOA. First and foremost for the protection of the private property rights of our agricultural industry, we request that there be a minimal to no adverse effect to the	Please see the response to comment #13 regarding airspace, Fort Carson Regulation 95-1, terrain flight modes, PCMS MOA, and Route Hawk.

agriculture industry that is located in the MOA region. By maintaining an altitude of 5,280 feet or higher the noise factor and abrupt intrusion into the airspace over the ranches and farms by these three types of flight training, the domestic livestock herds would not be impacted as severely and most especially in calving season. The adverse effects of milk and production and undue stress on the young calves can lead to potential risks of disease and death of a producer's calf crop. It is our hope that you would support a FLY NEIGHBOYRLY over our region's ranches and farms as it would prevent a negative push back on the CAB maneuver training in the MOA area of PCMS.	
In regards to Route Hawk, we ask that the one lane that is designated in the EA for Nap of the Earth Flight be removed and flights between Fort Carson and PCMS to flown at the regular altitude of 5,280 feet to 8,000 feet in the counties of Huerfano, Las Animas and Otero. We base this revision on the concern for public safety for residents living between Fort Carson and Pinon Canyon Maneuver Site.	Section 4.4.2.2.4 has been updated to correctly identify Route Hawk as a low-level flight route, not a Nap-of-the-Earth route. As now clarified in the updated Section 4.4.2.2.4, pilots performing low-level flight training on Route Hawk typically will only fly low-level in one direction; either from Fort Carson to PCMS or from PCMS to Fort Carson.
We request to see the actual flight routes to and from PCMS. This was not included in this EA so that there is no way to assess the impact of these flight routes to our land, water, wildlife, and people.	Most of the CAB helicopters that would travel between Fort Carson and PCMS would be flying at altitudes of 500 feet AGL minimum and would be approaching and leaving PCMS by various flight paths as there are no set air corridors in the area between Fort Carson and PCMS. Impacts by helicopters flying at a minimum of 500 feet AGL are anticipated to be negligible.
Once again we must emphasize that there is more than adequate air space on the maneuver site and adjacent federal land to train our military men and women in the Nap of the earth flight, contour flight and low level flight. Furthermore PCMS has prepared their power lines with underground placement for safety factor for our troops. The route from Fort Carson to PCMS has very extensive network of power lines ABOVE ground as well as communication towers that are on the landscape between the two military facilities.	Prior to conducting low-level flight training missions, Fort Carson conducts reconnaissance to ensure no new obstacles, such as power lines, have appeared which would endanger the safety of our Soldiers and the public. Safety of our Soldiers and the public is of paramount concern to the Installation.

The one lane designated for Nap of the Earth in Route Hawk would just be far too risky for the general public and our military man and women.	
In regards to the use of these three types of training on the maneuver site, we ask that CAB FLY NEIGHBORLY TO THE WILDLIFE at the altitude of 2000 feet in the designated areas during the season that our avian population which include our raptors on the maneuver site are nesting and also hatching of their offspring. During the rutting season of our larger mammals we ask that the same apply in the areas on the maneuver site that they gather for the rutting season.	To minimize noise impact to eagles, the Installation monitors for active nesting. Section 4.4.2.2.4 has been updated to reflect the current practice that, while eagles are actively nesting, the Installation makes that specific area and designated buffer unavailable for training. Existing measures in place for big game are also believed to be appropriate actions to mitigate the increased impacts to big game populations from aviation training and other disturbances. Section 4.4.2.2.4 has been updated to incorporate preliminary results of the research investigating the relationship between training and deer on the Installation.
This would be the proper conservation and protection measure to be good stewards of our wildlife and their habitat.	
Section 2.3.3.4-Live Fire Training-Question: Has Fort Carson applied for restricted airspace over PCMS?	Section 4.11.2.2 has been revised to clarify that implementation of the proposed action would not include any request to the FAA for additions and/or modifications to existing airspace designations.
Section 2.3.4 Garrison Construction lines 39 NO CAB FACILITIES CONSTRUCTION PLANNED OR NEEDED AT PCMS. Question- Where are the helicopters going to be parked when not doing training exercises when they are at the site for more than a day? There needs to be some type of holding area for them as we cannot envision that they will sit on the air strip all the time. Not only concerning safety issues for any other air traffic to land or take off, but also the risk of contamination of the air strip ground itself from leakage of fuel or lubricants. That ground would have to be addressed immediately, with removal of the soil and transport to	CAB helicopters at the PCMS Combat Assault Landing Strip would park on the) apron. The Installation has determined that there would be less environmental impacts if the helicopter parked on concrete pads instead of the current compacted crushed gravel surface. The proposed action now includes this minimal new construction at PCMS. No additional construction at PCMS is planned. Section 2.3.4 has been revised appropriately.

a proper hazard material facility. We request that before the final EA is done that this is a definite issue that needs to be addressed and a plan be developed for a holding area for the helicopters with the entire necessary tie down set-up to ensure that there would not be damage or loss of a helicopter from sudden wind.	
Section 3.2-1 Anticipated Direct and Indirect Impacts to Valued Environmental Components-geology and soils – One of the top priorities in the budget needs for PCMS must always be control of soil erosion as with inclusion of a CAB there will be greater soil erosion and presently there are still projects regarding soil erosion both on ITAM and the environmental arm that need to be funded and completed.	As reflected in Table 3.3-2, control of soil erosion continues to be a priority at PCMS.
Number of full time employees at PCMS – we do have concern regarding adequate environmental and range control staffing numbers at the PCMS. We understand that at the present time there are only two full time environmental employees because of the freeze on hiring. As soon as hiring freeze is lifted, there needs to be additional personnel at the PCMS. The number of environmental full time civilian employees needs to include one to two more biologists; at least 2-4 more other qualified civilian personnel to help with overall environmental issues and compliance issues also. ITAM also could use some additional personnel to maintain the training ranges and necessary reclamation work to sustain the training areas. Two full time environmental workers to oversee the eco-system on 234,000 acres will not sustain the eco-system of PCMS for too long. The hiring personnel for the PCMS should be a 1st on the list when the hiring freeze is lifted.	Thank you for expressing your concerns regarding the Installation's budget and its potential impacts to the Army conducting its stewardship responsibilities. The Army recognizes this concern and is working to ensure we meet our responsibilities.
A line item in the budget for monitoring of soil erosion, sediment and selenium impacts to the eco-system, complimented along with proper road maintenance, consisting of like and kind, for erosion and dust control as well as a safety concern is a must.	

Water resources – WATER WELLS – THE WATER WELL AND PIPELINE SYSTEM NEED TO ALWAYS BE AT THE TOP OF THE LIST ALSO. THE WATER WELLS ARE THE MAIN SOURCE OF LIFE WATER FOR ALL OUR WILDLIFE ON THE MANEUVER SITE. TO BE GOOD STEWARDS, IT IS A NO BRAINER THAT THERE SHOULD ALWAYS BE MONEY IN THE PCMS BUDGET FOR MAINTENANCE OF THE WELLS ON THE MANEUVER SITE. We understand that regional is reviewing budget line items and it still not sure if monies will be appropriated for the water well maintenance. We know that the priority in the budget line items focus on a lot of times is given to compliance issues, but we need to remind Fort Carson that the maintaining of the habitat of our wildlife which includes their water sources has to remain a TOP PRIORITY and to sustain the eco-system of our maneuver site and to be good stewards of the environment at PCMS the WATER WELLS are one of the primary tools that should be utilized to do just that. To maintain a healthy eco-system all wildlife species have a roll, lose them and the eco-system is not sustainable.	Please see response to comment #114 regarding source of water for wildlife.
Section 4.6.1.2.1 Surface water: With the inclusion of CAB, monitoring is a must regarding soil erosion and sediment with SE into the Purgatory River and her tributaries that flow through or on the border of PCMS. A strong water resources management program is definitely needed to ensure that excessive amounts of sediment and SE do not enter the Purgatory River, that is why earlier in our response we stress that all erosion project should be a top priority.	
Section 4.7.1.2.1 Vegetation and Wildlife. Invasive Species will increase with CAB use of our maneuver site. With the current time table, it is necessary during the next few years to aggressively attack the invasive species that are currently present on the maneuver site and work at the total extraction of them. The	As noted in Table 3.3-2, to address potential noxious weed infestations resulting from training activities, the Installation would continue to manage its lands in accordance with its ITAM, Installation Natural Resources Management Plan (INRMP), and Invasive Species Management Plan and program requirements.

helicopters will spread seed at an accelerated rate and management of the invasive species will be a full time mission. The must be completed for the productivity of natural vegetation to survive and prosper on the maneuver site. The current plans and inclusion in the 2012 approved budget of a vehicle wash facility is a positive addition to control the spread of invasive species in the region not only on the maneuver site, but all of southeastern and central Colorado, as the I-25 corridor is the main route of ground vehicles used in maneuver training at PCMS and route of RR for transporting the Abrams. Regarding the wildlife, knowledge of the main areas that our wildlife on the maneuver site congregate is important so that in planning maneuvers specially with CAB involvement, the FLY neighborly is a priority so that minimal disturbance to their migration routes and other habits are not intruded onto drastically. Done right, the use of CAB will not cause forced migration of our wildlife off of the maneuver site but allow both our wildlife and CAB to co-exist. Section 4.8.1 Cultural Resources: By the current and recent 106 consultations regarding historical and cultural site protection we believe that Fort Carson is addressing and preparing continued protection for our cultural resources located on the maneuver site. Continued negations with SHPO and the Native American Tribes regarding a programmatic agreement to address proper oversight of our cultural resources does address any concerns we do have. Should budget ever allow a heritage center, we ask that Fort Carson would place it in the cantonment area of PCMS or in the county seat of Trinidad. The history and legacy of the maneuver site region is the history of Las Animas County and should never be located anywhere else. It is the story of Las Animas County Residents and it is our story to tell. Any and all social economic benefits of tourism attractions regarding our history should benefit the tourism industry of Las Animas County.	While not part of the proposed action, the addition of a vehicle wash facility at PCMS, identified in Table 3.2-2, would be an important addition to the Installation's efforts to control the spread of noxious weeds.

4.9.2.2 Social Economics affect environment. Continued work at getting more contracts to locals in our area and utilizing local vendors must be done. We are mindful that the loss of revenue to our region in the last 30 years can never be replaced; but current and future activities regarding economic benefits of the maneuver site to our region need to continue.	As noted in Table 3.3-2, the Installation has proposed to investigate ways to further enhance favorable economic benefit in the PCMS area such as increasing spending locally and educating local businesses in government contracting processes.
4.11 Airspace: Regarding this section: the SCEC have started to address some of the issues regarding the use of air space in the MOA.	
UAS- We ask that in the Fort Carson regulations that when UAS's and in all maneuver training the biological and chemical warfare agents be prohibited completely in the MOA. This is to insure the health and safety of our military men and women, local residents and their domestic livestock, our wildlife and that no contamination to the land and water. We do not object to the UAS used on the PCMS and adjacent federal land, UASs that fly below 2000 ft should be prohibited in the private sector of the MOA. A UAS leaves a smaller carbon imprint on the environment then some of the heaver equipment. Their use also saves the lives of many military men and women.	As noted in the response to comment #1, the CAB that is being stationed at Fort Carson does not include a UAS company. This CAB stationing would also not be introducing biological and chemical warfare agents to the region.
4.12 Utilities: We are glad to see that a storm water plan is being developed at PCMS. We were quite surprised that a storm water plan had not been in place since the beginning of the maneuver site. This was a priority topic years ago; another issue that we had been informed was in placed.	Stormwater management plans are typically only developed as part of a permit requirement. As there is no regulatory requirement to have a stormwater management plan at PCMS, the development of the plan would be to enhance the Army's stewardship of the land.
4.13 Hazardous and toxic substances. Under this section we need to reinforce the necessity for proper oversight and handling of hazardous and toxic substances.	As noted in Section 4.13.1.1, the Installation has a comprehensive program to address the management of hazardous waste, hazardous materials, and toxic substances at Fort Carson and PCMS. Safety of our

Adherence to all state and federal regulations regarding storage, use and disposal of hazard waste is a must and all record keeping must be current and in compliance at all times. Transportation of this waste needs to be done in proper containers, with decals on the containers and vehicles that transport them to proper facilities. Inspection and maintenance of POL Yard and holding pond needs to be done on a frequent basis. The past neglect of this over the years is finally being addressed because of our intervention. We hope not to have a repeat our actions, but if necessary we will. We do prefer being a working partner and making sure our eco-system is healthy and all environmental compliance needs are kept current and well maintained.	Soldiers and the public is a top priority for the Installation and contamination of the environment is to be prevented.
We ask that in Fort Carson/Pinon Canyon Maneuver Site Regulations that regulate storage of waste the consideration of the following regulation be added: The storage of low-level and high-level nuclear waste be prohibited on the surface or subsurface of Pinon Canyon Maneuver Site and use of the maneuver site for a transfer station of low-level and high-level nuclear waste be prohibited. This regulation continues the protection to our local residents and eco-system, our military men and woman who train PCMS and has been in place in Las Animas County since the late 1980's. In our research and work regarding this EA we have discovered many antiquated regulations and oversight departments in place for the maneuver site and recommend that a review of those regulations be updated. As technology increases so must the regulation. It is the responsible avenue to a secure future for coming generations.	The proposed action, affected environment, or cumulative effects do not involve nuclear waste; therefore, revisions to regulations as part of this action are not warranted.

Thank you for your consideration of our response.				
ID: 184	**Date:** 1/25/12	**Name:** Kandi Nitter	**Method:** Letter	**Other Notes:** Submitted at public meeting - Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 185	**Date:** 1/25/12	**Name:** Jennifer Keeler	**Method:** Letter	**Other Notes:** Submitted at public meeting - Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 186	**Date:** 1/25/12	**Name:** Lisa Y. Doherty	**Method:** Letter	**Other Notes:** Submitted at public meeting - Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 187	**Date:** 1/25/12	**Name:** Joe Doherty	**Method:** Letter	**Other Notes:** Submitted at public meeting - Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 188	**Date:** 1/25/12	**Name:** Mary Johnston	**Method:** Letter	**Other Notes:** Submitted at public meeting - Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 189	**Date:** 1/25/12	**Name:** Marilyn E. Hagane Edgar Ranch Inc.	**Method:** Letter	**Other Notes:** Submitted at public meeting - Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 190	**Date:** No Date Provided	**Name:** Tom McFairidge	**Method:** Letter	**Other Notes:** Submitted at public meeting - Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 191	**Date:** No Date Provided	**Name:** No name provided	**Method:** Letter	**Other Notes:** Submitted at public meeting - Colorado Springs
Comment			**Response**	
Permit me to preface this testimony as a 79-year old grandfather with a couple of words about my priorities that motivate my appearance here. First and foremost, I am a grandfather who believes his first obligation of service is to God and the mission of His Son, Jesus Christ. My second obligation of service is to my wife, my children, my grandchildren and my great grandchildren. But I also have an obligation of service to my community, my State and my Nation. That obligation also serves well my interests to my extended family, and also to the values that God has bestowed on me. Make no mistake about my priorities, I consider the defense of this nation as more important than my personal or even state economic interests. Now that you have that firmly in mind, I can proceed. Thank you, Ft. Carson, for allowing me the privilege of appearing before you this evening to testify in support of effective training for the soldiers of Ft. Carson and the helicopter brigade assigned to support them in their training. And, to the representatives of Ft. Carson present here tonight, thank you for your service in defense of myself the State of Colorado, this nation, and even the ranchers of Las Animas Countv. And let me take a moment to congratulate the self-interest organizations appearing here on behalf of the ranchers of Las Animas County. With the help of the Pueblo Chieftain and our Colorado Congressional representatives you have shown well how			Thank you for your comment.	

just 60 some ranchers in Colorado can use the mass media and a newspaper struggling to survive in a new information age to successfully pursue their own self-interests at the expense of the entire economy of the State of Colorado, and more importantly, placing their own self-interests above those of providing the best training possible to the soldiers of Ft. Carson who contribute far more to the economy and the tax base of this State than all of Las Animas County. My critique of self-interest also applies to those who have appeared tonight in defense of the ecological impact that training at the Pinion Canyon Maneuver Site has on the prairie grasslands of Las Animas County. I claim you as self-interest organizations rather than the more traditional ethical special interest organizations because how would you ever gain support of public contributions or satisfy your own egos regarding your importance unless you appeared at hearings like this. I must admit, this concern for preserving the delicate prairie grasses of Colorado has me stumped since the ground cover of the county is comprised of far less than half of the original prairie grasses that were native to this State. You see, most of the efforts of traditional special interest groups are far more concerned with working in far less public venues educating the public and our public institutions in how their interests contribute and coincide with the larger public interests. For some reason they find this far more constructive than distortedly and loudly proclaiming the preservation of something that makes little sense and only serves to obstruct the public interests of this state and nation from functioning effectively for the benefit of the vast majority of our citizens. It's hardly worth mentioning, but many of the contributors to the self-interest groups present here also seem to enjoy spending their weekends tearing up the slopes of our mountain lands with their skis, and running their ATVs over our public lands. And, regarding the ranchers of Las Animas County, it seems they and the other self-interest groups assembled here are	

quite willing to ignore that most of them do not meet their own public obligations to preserve the land that they own and defend so vigorously against a greater national defense interest. But I must confess that I do appear here this evening on behalf of my own special interest group, my children and grandchildren; and, I dare say, what I testify about tonight I hope may strike a responsive chord in the hearts and voices of many other Colorado grandfathers who share my concerns for a strong Colorado economy that provides good jobs for those we hold dearest. My children and grandchildren are indeed my special interest group. So, permit me now to be very specific. Regarding increased training with the helicopter brigade and Ft. Carson troops at Pinion Canyon, I appear here in whole hearted support of that increased training. Living in Pueblo, Colorado on the extreme southwestern edge, I am privileged to have, on occasion, heard and seen a Ft. Carson helicopter traveling to or from Ft. Carson to Pinion Canyon Maneuver Site. I welcome that sound and interruption to my day. Before moving to Pueblo, it was my privilege to have built a home in Aurora, living in it for nearly 12 years, that was positioned about a mile off the foot of the most frequently used takeoff runway of Buckley Air Force Base. Somehow, I found the roar of those Air Force jet fighters coming out of Buckley very comforting. I firmly believe that increased use of Pinion Canyon Maneuver Site for training of Ft. Carson soldiers is essential to their preparedness in defense of this State and our Nation, and I support it 100 percent. And just in case those with different interests doubt my sincerity, permit me to make this offer to the Ft. Carson representatives here. I live at the end of a street bordering on a large turnaround circle. Oh, I recognize that Ft. Carson likely has constructed mock-up urban streets for helicopter supported troop training of urban battle conditions. But, just in case you might want a little more reality, I	

make this offer. I would welcome the privilege of you considering our turnaround circle and my home and lawn as an isolated urban training ground. And, I will actively solicit the support of my neighbors and the City of Pueblo in such a venture should you wish to pursue my offer. And don't worry about the damage to my small grassland lawn that costs me over a thousand dollars a year to maintain- or the possibility of a nick or two in my woodwork as the soldiers go through my home to conduct their search; I'll find the repair bucks somewhere in my pension. I want the soldiers of Ft. Carson and the helicopter brigade to be the best trained that it can be as they face the challenges of defending Colorado and the nation in Afghanistan, the Sudan, or here in this state. I consider each and every one of you a precious resource that ranks far above the self-interests of those assembled here. But I would be remiss in this testimony before you if I did not deal with some hard economic facts and hard military defense preparedness issues that are of major concern to me, to my community, to Colorado, and to my children and grandchildren. To begin, I state the obvious. Ft. Carson alone is the second largest employer in Colorado Springs and has a substantial economic influence on my own community of Pueblo. But it is of even more importance it is the lynch pin of the entire defense industry of Colorado. I wonder if those gutless wonders our Congressional representatives here in Colorado, so concerned with their next election and how they might appear, in the Pueblo Chieftain and local mass media outlets have stopped to consider the real economic facts that surround their strong defense of 60 some Colorado ranchers in Las Animas County. What are those facts? For Colorado Springs, the presence of Ft. Carson, the other military bases, and the supporting civilian defense community constitutes a major segment of its employment base and tax base. Collectively,	

the military and defense community in Colorado Springs makes it the second largest employer in the entire state. Let's contrast this with all of the jobs engaged in agriculture in the state of Colorado. The economic value of agriculture in Colorado in terms of farm wage and salary distributions that includes the income of the 60 ranchers of Las Animas County is less than a third of that of the wage and salary distributions of the military in Colorado. Now if you add to that the wage and salary distributions of the civilian defense industry in Colorado, the disparity widens much more. Furthermore, when you consider the impact of the higher wage technological workers of the civilian defense industry on salaries and wages all along the front range of Colorado Springs, it is clear that the loss of Ft. Carson, other military bases in Colorado Springs, and their supporting civilian defense companies would be devastating. Why even the ranchers of Las Animas County would have to pay higher taxes to support their schools since the impact on Colorado's tax base would require draconian cuts in support to local school districts. But what about the great contribution of Las Animas County ranchers to our agricultural industry? After all, that must be important too. The nearly 14,700 A farms and ranches in Colorado are responsible for an inventory of 2 3/4ths million cattle and calves each year with a net cash income of nearly a billion dollars. Of this amount, only 11 1/2 million comes from government payments. Wow! But let's take a close look at our major interest- Las Animas County. What is its agricultural economic value to Colorado. In cattle and calves inventory Las Animas County with its vast acreage and its 321 farms and ranches musters an inventory of less than 50,000 cattle and calves each year with a net cash income of $677 ,000 for all farming and ranching operations. Only 30,165 acres of the over 2 ½ million acres in Las Animas County produces harvested crops. Even more interesting,154 of these farms and ranches in Las	

Animas County receive about 1 1/2 million dollars in government payments--more than ten percent of all government payments made to all of agriculture in Colorado. Talk about feeding from the U.S. and Colorado taxpayers' public trough. Why is it, do you suppose, that our Congressional representatives here in Colorado have been so lacking in leadership as to fail to make these hard economic facts clear to our Colorado citizens? The motives of the Pueblo Chieftain, who denied me the adequate space in my own community newspaper to explain these facts, are pretty clear. They are struggling to retain enough subscribers and advertising to maintain their existence. But the outcries of the ranchers of Las Animas County and the other self-interest groups assembled here do not justify the lack of real leadership on the part of our Congressional representatives .Real leaders, like those in our U.S. military and those who command the troops at Ft. Carson, lead. They know that their first obligation is to tell those to whom they are accountable the truth even when that truth is unpopular and goes against the grain of traditions in the military or the nation's culture. But our Congressional representatives and even our State representatives who also are an accountable are apparently not real leaders. Our nation's Defense Department and the Joint Chiefs of Staff constitute one of the best planning and leadership organizations this country has. They also hold dear the value of assuring this nation's defense by placing uppermost in their planning the objective of providing the best training possible and the best technology and equipment possible to the front line soldier. Thank God for their dedication and thank you, those assembled here from Ft. Carson who implement that value. The plain fact of the matter is that a major expansion of the Pinion Canyon Maneuver Site and to its use in training is essential to the best training possible objective and the economic effectiveness of	

that training. I have read carefully the Pinion Canyon Maneuver Site proposed expansion documents that are available to the public, and very similar documents regarding the proposed expansion of the Marines training site at 29-Palms in California. If Ft. Carson is to continue to be a presence in Colorado over the long term the Pinion Canyon Maneuver Site must be expanded and used more extensively. The Army and the Colorado Springs community representatives would quickly respond to this by stating that there are no funds presently to accomplish that expansion so it is not material to our discussion. However, our public policy attitude here in Colorado I insist is material to our discussion. Do you think for one minute that the Department of Defense is not planning the fate of Ft. Carson in the future in its 10 and 15 year planning cycles? Joint Force training, the combining of Air Force, Marines, Navy and Army resources in highly flexible combat organization is an increasing essential part of our long term national defense and in achieving an economically efficient military defense structure for our nation. In the next 10 to 15 years, and perhaps as soon as next week, we may be faced with the unpleasant economic fact of the eventual closure of Ft. Carson and, as a result of a domino effect, the departure of the entire defense industry including the other military bases and supporting civilian contractors from Colorado Springs. Our Colorado Congressional representatives know this well, but their concern is not this unpleasant truth but with their next election. Should this unpleasant fact become a reality, our Congressional representatives and the Pueblo Chieftain, along with our other mass media outlets, can always put up a spirited defense, cry out at the loss to Colorado, and cast the blame an uncaring Department of Defense or a weak economy. I say to our Congressional delegation to our Pueblo and Colorado community leaders and to our Governor and State Legislature that now is the time to deal with the truth. There are some limited sound strategic reasons why Ft. Carson and	

our defense community should be retained here in Colorado, but without a major political attitude and public policy change and without strong economically justified leadership from our Congressional delegation I believe the die is cast and Ft. Carson will be scheduled for closure when national economic conditions make possible the creation of three or four joint force mega-training centers in communities that are more conducive to their establishment. For the education of my children and grandchildren and hopefully as a motivation for other grandfathers in Colorado to get involved as well, I am in the process of developing a website that deals with a few public issues, of which Pinion Canyon is one. The website also has some other uses as well. With digitally communicative grandchildren I found I needed a website just to keep the extended family talking and working together. On this website I am developing a future-directed scenario on the closing of Ft. Carson and the departure of the military and defense community from Colorado. I hope some of you will follow my efforts in teaching my children and grandchildren regarding the unintended consequences of our actions and why all of us have a responsibility to consider carefully the consequences of our failure to be involved in matters like Pinion Canyon when objective economic facts are ignored in favor of feel-good emotional responses. Now I am also going to encourage viewers to my website from the counties and communities who might stand to benefit from Colorado's lack of accountability for its own economic future - the counties and communities surrounding the Greater Los Angeles area and its northwest military neighbor Ft. Irwin with its over 1,000 square miles of maneuver land. Some of you may find it interesting how combining the right resources and political and economic commitments can be done to achieve a desired goal, the creation of a joint force mega-training resource that makes effective use of existing and expanded military training resources in Southern	

California. It is almost too late for Colorado, but not quite yet if we act now to achieve a good economic outcome for our state. To the ranchers of Las Animas County I say, forget about your dreams of getting the Army out of Pinion Canyon so you can buy up cheap land from the Army. Be good citizens willing to negotiate the best deal for the eventual future expansion of Pinion Canyon for the land they will eventually want to purchase. To Trinidad and the other communities of Las Animas County and other affected counties, seek a deal with the Army that in the long term calls for the placement of a technological support force and counter-maneuver force of troops and civilian personnel in Las Animas County that greatly increases your tax base and your economic future. Become apart of the solution that benefits both the County and the State of Colorado. Communities in other states with a strong military presence have done very well in their negotiations with the Army and other military branches to their benefit and to the benefit of the military in their communities. To Ft. Carson representatives and to the Department of Defense I plead, don't lose faith with us just yet. Perhaps our gutless Colorado Congressional delegation may yet find their voice and their leadership in explaining to Colorado citizens the stake they have today, not five or ten years from now, in preserving and expanding the military and civilian defense community presence in our State. To my fellow citizens of Colorado, I urge you to tell your Congressional delegation and our Governor that the most important consideration for Colorado now is jobs and a sound Colorado economy. The cold hard facts are that Las Animas county ranchers figure very small on their economic contribution to Colorado in jobs and economic production, and the military and defense community looms large. Las Animas country ranchers contribute little, feed disproportionately of taxpayer monies, and stand ready and willing to cost this State it economic future - the continued growth of a	

technologically advanced labor force and industrial base. Thanks for listening, and if you're interested in this old grandfather's website and my scenario, visit thegrandfatherproject.org in about three weeks as I develop this scenario for my grandchildren.				
ID: 192	**Date:** 1/26/12	**Name:** Michelle Vandepas	**Method:** Public Comment Form	**Other Notes:** Submitted at public meeting - Colorado Springs
Comment			**Response**	
I live on Rock Creek Canyon and the helicopters come right over my house very low, often shaking my windows and scary!! I've called several times – "Please send helicopters over Ft. Carson land and not private land – And better yet, get them out of beautiful Colorado.			Thank you for your comment. Please see the response to comment #113.	
ID: 193	**Date:** 1/26/12	**Name:** Kevin Karner	**Method:** Letter	**Other Notes:** Submitted at public meeting - Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 194	**Date:** No Date Provided	**Name:** Fred Freidenberger	**Method:** Letter	**Other Notes:** Submitted at public meeting – Colorado Springs
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 195	**Date:** 1/26/12	**Name:** Esther L. Kisamore	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 196	**Date:** 1/26/12	**Name:** Robert Kinsey	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 197	**Date:** 1/26/12	**Name:** Lyman Edgar Edgar Ranches	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the	

			response to comment #2.	
ID: 198	**Date:** 1/26/12	**Name:** Michael Siddoway	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 199	**Date:** 1/26/12	**Name:** Joseph L. Edgar Edgar Ranches Inc.	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 200	**Date:** 1/26/12	**Name:** Richard L Rinker	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 201	**Date:** 1/26/12	**Name:** John Liechty	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 202	**Date:** 1/26/12	**Name:** Bill Sulzman	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 203	**Date:** 1/26/12	**Name:** Ricke Feemster	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 204	**Date:** 1/26/12	**Name:** Kim Feemster	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 205	**Date:** 1/26/12	**Name:** Lorraine Poulson	**Method:** Transcript	**Other Notes:** Transcript – Colorado Springs
Comment			**Response**	
I work for the BLM, seasonally, and I'm here representing the Colorado Council of Professional Archeologists. And we're			Thank you for your comment. We acknowledge that there are precious cultural resources on and near Fort Carson and PCMS. Please see	

consultants with the Army in this process. I pulled some data from the Draft Assessment, the large version, and I just want to share the facts and let them speak for themselves. At Fort Carson itself, the main post area, there are no important archeological sites, except I know that there is some preserved rock art there, some really beautiful rock art, but that's not in question tonight. But in the larger Fort Carson area there are 1,200 archeological sites, of which 140 of them are considered eligible for the National Register of Historic Places. In other words, they're precious and important. And 56 more are potentially eligible. And there is 24,825 unsurveyed acres within Fort Carson, so we don't know what cultural resources might still be unacknowledged. Then in Piñon Canyon, fortunately 23 percent of it has been surveyed, and there is 4,163 archeological sites. I know. Of which, 948 are eligible. So there's 948 precious, irreplaceable diagnostic, potentially important sites. In the Contonement area there are no eligible sites, and that's good news. But then in the same paragraph, and I didn't quite understand this, in Piñon Canyon, evidently there are five sacred sites. There are three TCP's, and I don't know what those are. TCP's. And two areas of concern. So for me, it's the 4,000 sites in Piñon Canyon that I hope the Army considers a way to set them aside, not -- not blast them. I don't know. So does anyone have a question? Oh, I can't answer	Section 4.8 for accurate statistics regarding the Installation's cultural resources. The Army takes its stewardship responsibilities in these areas very seriously.

questions. Sorry. All right. Thank you.				
ID: 206	**Date:** 1/26/12	**Name:** Doug Holdread	**Method:** Transcript	**Other Notes:** Transcript – Colorado Springs
Comment			**Response**	
Energy security needs to be one of the first things we think about before we deploy another soldier, before we build another ship or plane and before we buy another rucksack -- I'm sorry -- before we fill another rucksack. These are the words of former Chairman of the Joint Chiefs of Staff, Michael Mullen. I'm a member of the Pinon Canyon Expansion Opposition Coalition, which means that I've been attending these kinds of meetings, EA's and EIS's, just like this one, for about six years now: Grow the Army, Stryker Brigade, Transformation, Combat Aviation Brigade. During that time, range managers, commanding generals, garrison commanders, and even entire departments, like the Directorate of Environmental Compliance, have come and gone. But the Army's efforts to expand training at Piñon Canyon have been relentless. At first we thought that by attending meetings like this our voices would be heard and we'd convince the Army to leave us alone. We now understand that Colonel McLaughlin and his successors, probably, can do more -- do no more than just, you know, conform to the process. They can't make promises. They can't make the decision to leave us alone. They can't do it anymore than a civil affairs officer in Afghanistan can promise villages there that they'll be left to live their lives in peace. So I'm not speaking, I'm not making my comment tonight to Colonel McLaughlin. I'm trying to speak -- I'm hoping that somehow we can speak through this process to those who we've elected to represent us. I'm trying to speak to someone out there, to our senators, to Senator Udall, to Senator Bennett, to Congressman Tipton. In our democracy things are supposed to be decided not by			Thank you for your comment. The proposed action does not include expansion of Army lands.	

corporate lobbyists representing the military industrial complex, they're supposed to be decided by our elected officials.	
Besides being a member of the Pinon Canyon Expansion Opposition Coalition, I'm also a member of an organization called Operation Free. Operation Free is a veterans' group. And as veterans we believe that our national security depends not upon ever expanding militarism and the seizing and controlling of foreign oil fields, but in the development of energy independence. This is an idea that is really in agreement with the statement that I read by -- by the former Chairman of the Joint Chiefs of staff, Michael Mullen.	The Army acknowledges and supports sustainable energy initiatives, such as the Fort Carson Net Zero initiative described in Section 4.12.2.3 (cumulative impacts).
As veterans we believe that the development of wind energy will make future wars less likely and would become the next great economic engine for our national economy, providing jobs for returning veterans.	The Army has no intent to impede or otherwise impact sustainable energy projects by private landowners. In order to avoid impacts to aviation, landowners wishing to construct wind turbines, other sustainable energy facilities, or any other structure that may affect navigable airspace (e.g., structure in excess of 200 feet in height) must follow the FAA's "Obstruction Evaluation/Airport Airspace Analysis (OE/AAA)" procedures, which are codified in Title 14 CFR Part 77.9 and 77.13.
There's a battle going on to determine who will be the first to lay claim to the super adjacent private and public -- there's a battle going on to determine who will prevail in a battle to control private and public airspace from the surface up to 500 feet in southeastern Colorado. Will it be claimed by the military or will it be used for the development of alternative energy. This is document that was published by the Governor's Office on Energy. And there's a couple of maps in here that are really telling. One of them shows the areas of the state that have been identified as generation development areas. The largest area for solar development is in southeastern Colorado. The largest area for wind development is in southeastern Colorado.	Section 4.11.2.2 has been revised to clarify that implementation of the proposed action would not include any request to the FAA for additions and/or modifications to existing airspace designations. Please see the response to comment #2 regarding airspace and private property rights.

Another map in this document shows the military constraints that exist. And I'm sure you can't see it from where you're sitting, but southeastern Colorado is the greatest concentration of military installations, which are regarded as detrimental to this development. Our elected officials have a choice to make about how they'll work to ensure our national security. Will they do it advocating for corporate interests or by advocating the growth of the military industrial complex, or will they do it by promoting the development of alternative energy in our state. By the way, I have a bunch of extra copies of this if anybody would like one.	

ID: 207	**Date:** 1/26/12	**Name:** Bill Sulzman	**Method:** Transcript	**Other Notes:** Transcript – Colorado Springs

Comment	**Response**
I live in Colorado Springs, and this issue has taken a lot of my time going back as far as Doug talked about. This is about a six-year process. And so there's a lot of context out there. And I guess I'd like to start with what I think is an important part of the context; and that is, that there are really five branches of our current military apparatus that is pursuing aerial warfare. You know about four of them, Army, Navy, Air Force, Marines, but there's also the CIA, which has its own planes.	Thank you for your comment.
And you could -- if you looked at all of those other agencies that employ aerial warfare, they all have, more or less, the same package we're talking about here. And the reason we're being asked for more and more airspace, there's more and more need to train with all of these instruments.	Section 4.11.2.2 has been revised to clarify that implementation of the proposed action would not include any request to the FAA for additions and/or modifications to existing airspace designations.
Another bit of just general backdrop is, the Army is recently, just yesterday, said they're going to cut back maybe as many as 12 brigades, and a total of maybe 80,000 troops. But yet we see a major increase in that aerial arm. So that's kind of the background of why we'd be adding a brigade here while other places are going to lose them. And maybe even Fort Carson will lose one of its current brigades. So that's just background stuff.	

Getting into some of the specifics of the EA, there's a statement in paragraph 4.1.2.3 concerning the Special Use Permit that Fort Carson has with the Forest Service. And the Forest Service wrote a very strong comment letter in one of the earlier EA's that you saw mentioned here, in which they challenged whether or not that agreement was being honored by the Army. Technically, they're supposed to be able to cancel that, but in practice, they don't have the leverage to do that. The Forest Service can't take on the Pentagon, and they know it. So all they can do is maybe complain a little bit. But their contention is that the facts on the ground now, as compared to what they were in 2007, are radically different.	The Army responded to the concerns of the U.S. Forest Service on CAB training during the 2011 PEIS process. Fort Carson will continue to communicate with Pike and San Isabel National Forests on all mutual matters.
They have 16 sites that Fort Carson uses for landing and takeoffs in the national forest. Another federal agency that is heavily impacted by off-post training -- and the majority, I believe, of the training of all these machines we're talking about, will happen outside the boundaries. It's not like -- you assume an Army base contains the area in which the other elements of the Army trains, but with helicopters and airplanes, that's not the case -- but the BLM, as opposed to the Forest Service, doesn't have a Special Use permit. They have said all of this use of 24 sites -- and they're seeking a lot more, the Army is -- is casual use, and, therefore, there is no need for a formal agreement.	As noted in Section 2.3.3.5, Fort Carson CAB training on lands owned by another Federal agency, a state or local government, or private landowners would comply with any existing agreements or be preceded by new agreements and their appropriate NEPA analysis, documentation, and review. The proposed action does not require additional off-post landing zones to accommodate specialized training needs. As disclosed in Section 4.11.2.3, the additional landing zones for which the Army is currently seeking from the Bureau of Land Management (BLM) would be to accommodate high altitude training needs of primarily transient aviation assets and aviators who require high altitude training prior to deployment to combat areas overseas. Helicopter flight dynamics are profoundly affected by altitude and such training is essential to safe flight and the preservation of life and limb for crews deploying to mountainous regions. These training needs would not be affected by the CAB stationing implementation; however, once established, CAB resources may occasionally use BLM landing sites as an alternative to the Pikes Peak and San Isabel National Forest sites.

Fort Carson also maintains at least eight landing zones in what's called the Eastern Helicopter Training Area. And that, again, is something that is employing all of these resources that we're talking about. It's very likely that the Army will expand its use of Piñon Canyon for live-fire training, because they're going to have to do a lot more of it. So how can they do that? Does this agreement give them the right to do that? I would say that this following paragraph from chapter 2 of the -- of the EA gives them sort of carte blanche. "Environmental and training conditions, factors beyond the Army's control, such as world events, troop deployments and climatic conditions affect the implementation of training. Environmental and training conditions are dynamic, therefore, training activity under the proposed action is a process by which the Army would monitor and respond to changing conditions in order to sustain the land for training and provide maximum troop readiness." That to me is sort of a trapdoor, a blank check, that would cover major revisions in what is stated in the EA.	The proposed action does not require expanded or new live-fire ranges. Please see the response to comment #112 regarding NEPA and future actions not reasonably foreseeable.

ID: 208	**Date:** 1/26/12	**Name:** Annarena Vedovi-Rinker	**Method:** Transcript	**Other Notes:** Transcript – Colorado Springs

Comment	**Response**
I wish to address the life issues involved in the proposed military expansion, specifically of the CAB Brigade at Fort Carson. I'm here to represent the voiceless ones who are directly impacted by these proposed military maneuvers in Colorado Springs, in Piñon Canyon and in the airspace that connects the two. I speak for the earth and for all that lives here in this land. Especially for the ones who are not here with us tonight who should be considered because they are part of the interconnectedness of all life. We object to this proposal, because, basically, it is for death, not	Thank you for making us aware of your concerns. The Army takes its stewardship responsibilities very seriously, as we also do our safety and public health responsibilities.

life. Let us imagine how this proposed military expansion at Fort Carson actually impacts the beings who live here. Picture the defenseless ones: The birds, the butterflies, the deer, the rabbits, the foxes and countless beings that have their homes here, besides humans. They deserve to live in a healthy environment just as we humans do. What will this do to their habitat? It will destroy it. Vehicles, helicopters, ground troops will destroy their fragile homes. I'm sure they would object to drones as well. Think about where we are putting our energy with this proposal. How can this benefit our children and our children's children by spending millions of dollars on what is, in reality, a killing machine that destroys Colorado's pristine environment as well as that of other countries. The women and men elders of the six nations of the Iroquois Confederacy -- who, by the way, gave us our Bill of Rights -- heard all citizens' concerns before deciding upon far reaching changes in their communities. Changes were considered collectively as they recognize that the consequences of any big actions would impact the generations to come, seven generations to come. We would be wise to do the same as responsible citizens. We should act as stewards of the land, not murderers. I'm asking you to think about what you are creating. Look at the consequences of these proposed actions from the point of view of life itself. We can continue to regard other life forms on this planet as inconsequential to our rapacious military expansionist needs. This attitude will eventually cost of economically, not to mention spiritually. This corrupts our humanity. We will be sanctioning the creation of structures that perpetuate more desecration and violence in this land and in the world at large.	The proposed action does not include expansion of Army lands nor additional airspace.

It is truly sad that a 21st Century woman would have to appeal to the powers that be by mentioning the all mighty dollar first in order to ensure the protection of life in this country. Thank you.				
ID: 209	**Date:** 1/26/12	**Name:** Joanne Nieman	**Method:** Transcript	**Other Notes:** Transcript – Colorado Springs
Comment			**Response**	
Well, I was taking a look at the EA this afternoon, and one of the things that stood out for me is that the thing that attracts the Army as much as it does to this part of the world is the fact that it's such a lovely place to raise children and to raise a family and because we provide excellent social services, education, medical services and so on. And this is all true, but these things come out of the community and they're paid for by state and local taxes and local charitable contributions. Those things are paid for by the people who are citizens of this community and who shop in the stores here, pay their taxes and so on and so forth. They're not provided by the Army. They're there for the Army; they're not being provided by it. Now, what I want to know is: What good things has the Army brought to us? Thank you very much.			Thank you for your comment. As indicated in the 2011 *CAB Stationing PEIS*, incorporated by reference in this EA, the majority of the new military personnel are expected to live off-post, thereby generating revenue in the local economy. Local governments also receive compensations for the loss of property tax revenue resulting from property being under Federal ownership (P.L. 94-565. Payments in Lieu of Taxes Act, passed in 1976). Within Colorado, 17.73 percent of state and local governments' 2009 revenue was provided by the Federal government (Tax Policy Center, 2011. "State and Local General Revenue, FY 2009", Tax Policy Center, 05 Dec 2011, http://www.taxpolicycenter.org/taxfacts/displayafact.cfm?Docid=507, accessed 06 Mar 2012).	
ID: 210	**Date:** 1/26/12	**Name:** Alex Trowbridge	**Method:** Transcript	**Other Notes:** Transcript – Colorado Springs
Comment			**Response**	
And I just wanted to state that the governmental estimate for the spending was read to be $4 billion. And I just wanted to ask, how can you spend $4 billion on this military expense when our education budget for Colorado state was cut $1.1 billion this year? How can you spend $4 billion on this military expense when our			Thank you for your comment. Army appropriations are designated by Congress and are not part of the scope of this environmental analysis.	

national cancer research fund is $5 billion for the entire year? I just want you to deeply consider the necessity of this helicopter brigade and think about the budgeting of this year and if it's necessary to actually have this. Thank you.	
ID: 211 **Date:** 1/26/12 **Name:** Rita Ague	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
Hello everybody. Apologies first. I do apologize. I'm a truth teller. And I confess, I'm also here for a lot of people who cannot be here and speak to you all. I don't go looking for things to get involved in. I retired at put away both my journalism and legal hats, and guess what? Busier than I should ever be at this point in time, and I can't say no when the pleas come in for help. And over and over again the pleas have come in. Perhaps most disturbing are right up at the top are the pleas that come in from the VA. The people who work in the VA, provide medical care, are angsting. I can't even begin to explain to you the tears that I've seen coming down the cheek of a very highly credible doctor. His comment to me was, "This is not practicing medicine." Over and over again I hear that the hands are being tied in the dental department, in the pharmaceutical department, and throughout provision to vets. We do not need expansion at this point in time. The whole country has recognized that we have a new way of spelling the word wars, W-A-R dollar sign. We have made incredible profits for the 1 percent. (Whereupon, a conversation was had off the record between Mr. Rob Ford and Ms. Rita Ague.)	Thank you for your comments. As stated in Section 1.2, the proposed action does not include expansion of Army lands.

Expansion of Fort Carson is going to spend incredible amounts that we have to be putting into far more humanitarian causes and pockets of people who are doing their best. I am speaking now as a woman, as a mother, we have to care for each other, and we have to do that worldwide. Time to get out of the constant war mode and into a lot more caregiving and share mode. Thank you very much.	
ID: 212 **Date:** 1/26/12 **Name:** Bill Durland	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
I'm a 30-year plus resident of Colorado Springs and Trinidad, Colorado; an Army veteran who served in the regular Army and Reserves from 1954, '65. I was a captain in JAG Reserves '67, '68. My profession is as a civil rights attorney and college professor. In 1994 and '95 I was a member of the Fort Carson Environmental Restoration Advisory Board and have served on state and local environmental boards beginning in 1965.	Thank you for your comments.
I oppose the stationing of a new Combat Aviation Brigade at Fort Carson, as I did similar military expansion attempts in 1984 and in recent years, on various issues of environmental protection, financial considerations, and human rights, including the rights of persons and homeowners living near the Fort from Colorado Springs to Trinidad.	As noted in Section 1.1, this proposed action is for implementation alternatives in response to the CAB stationing decision already made by Headquarters, Department of the Army.
Tonight I will speak specifically to one issue because of the time restraints. I find inexcusable the deployment and use of weapons, if not of mass destruction, certainly of cowardly assassination, called Gray Eagle Predator Attack Drones, that I understand from your Q and A disclosure will be stationed here within two years, although not revealed in your original documents. The legal basis for my opposition is the Constitutional and international obligation previously signed by representatives of this nation, including language which makes the use of aggressive	Please see the response to comment #1 about UASs, sometimes also referred to as “drones”. In summary, the CAB that has been stationed to Fort Carson does not have any UASs.

stealth predators to assassinate by trespassing boarders against national sovereignty a war crime.

Our nation has committed itself to these obligations by word and honor. Some of these are the U.S. Constitution, the U.N. Charter, the Nuremburg Charter prohibiting war crimes, crimes against peace and humanity, and numerous treaties making part of our -- made part of our domestic wall.

Furthermore, it is a crime that when citizens don't have enough necessities we continue to bankrupt them and this nation by extravagant expenditures on military adventures. We have fallen into a trap set by al-Qaeda and Bin Laden where we have cooperated and become complicit in their fundamental and ultimate aim, which was not only to destroy buildings and American lives, but to destroy the very basis of our democracy by taking away the human rights of American citizens through our own destruction since 9/11 of the Rule of Law and the Bill of Rights.

I would like to remind us of two statements -- (Whereupon, a conversation was had off
25 the record between Mr. Rob Ford and Mr. Bill Durland.) -- relevant to my comments about human rights. Thomas Jefferson wrote in the Declaration of Independence about the self-evident truth that all persons are endowed, not by governments but by our creator, with human rights that cannot be taken away from us: Life, liberty and the pursuit of happiness. We sometimes forget what comes next. That to secure these rights, governments are instituted. It's not the other way around, to secure the government's right.

It is a fallacy to base this latest Fort Carson request on a theory that more drones or helicopters will secure our rights. What secures our rights are those Constitutional and international documents that are designed to bring us what the preamble to the U.S. Constitution declares should be the purpose of government: A more perfect

union, justice, domestic tranquility, general welfare, and the blessings of liberty. It was Martin Luther King, Jr., the great Christian passivist, who said, "All we say to America is to be true to what you say on paper," referring to our human rights documents. Finally, as a member of the Religious Society of Friends Quakers, I remind us of the peace gospel of Jesus Christ who tells us to love our enemies. (Whereupon, a conversation was had off the record between Mr. Rob Ford and Mr. Bill Durland.) Love is the only power against which there is no defense and the only free force -- only force capable of transforming an enemy into a friend. Violence only begets violence. Military empires are not the way, and whom would Jesus bomb anyway.	

ID: 213	**Date:** 1/26/12	**Name:** Keith Goodwin	**Method:** Transcript	**Other Notes:** Transcript – Colorado Springs

Comment	**Response**
My fellow commissioners in Otero County always require me to have some notes and overhead when I'm trying to make a presentation, because it keeps me focused. They always give me the sign like this -- (indicating) -- to say focused. What I'm going to try to do is stay focused on what is the intent of the EA. So, let's see. A copy of this back up again that was showed earlier. The important notice that I wanted to bring out again that was done with the new items that's not in the original process. We have the opportunity to bring – to present evidence that will facilitate this decision process right here. The rest of this is not really important at this particular point. Our emphasis is to have a guess emphasis on, is there a significant	Thank you for your comments.

impact. And so my computer analysis, it starts fitting on me, and I said, I need to analyze the facts to make a decision. And so I did some looking around, and another slide I found, to measure the importance that I'm showing of this decision, is this new item here that I found on the Internet on a government site.	
And if you notice, the importance -- we made one decision already. We found out that the -- there's -- that we have -- we're not excluded from doing an EA or EIS.	Please see the response to comment #105 regarding the level of NEPA analysis.
We have to make a decision. So at the EA, the purpose behind this and what I gather in my readings is that it was undeterminable whether or not there is a significant impact to the area. And so the purpose of an EA is to describe what the proposed action is and to find out if there's any impact to the area, significant impact. Keep in mind the word significant. Makes a difference.	
But you'll notice on this chart, which is also from one of the federal agencies, is we have one shot, right here. The Environmental Assessment, we have one decision. No impacts. Do you see any other information down here? Whoops. I'm sorry. It goes right straight from No Impact to, bang, Get the job done. Okay. And I found this on several federal sites.	
And so the important part is to come up with significant importance. Not knowing about all the NEPA problems and actively, and so on, I did another research, and I found at the Council of Environmental Quality, Executive Office of the President, an item that says, A Citizen's Guide to the NEPA: Having your voice heard.	
And what I wanted to do is thank Colonel McLaughlin for having our voice heard before the decision is made. It's always hard to try to battle a decision once it's already been made. We have an opportunity, and I hope it's an honest opportunity, to have our opinions and our stuff evaluated prior to a decision process.	One of the purposes of the NEPA process is to allow the public to share its concerns. The Army follows the intent of NEPA by acknowledging the public's concerns and by refining and improving our NEPA analysis in response to comments received.

Right. The items of importance on coming up with compliance is, how will these -- how will these affect the system: environment, human, biological, historical, on down here. What's studied and monitored requirements is needed to be sure that it shows the impact it should create in the future. Section 1508.9, Environmental Assessment, just says that the importance is to -- is there a significant impact. Significant means -- it's done in two different ways with context and intensity. Context is that significance varies with the setting of the proposed action. For instance, in the case -- in the case of site specific action, significance will usually depend upon the effects and the locale, rather than the world as a whole.	
So the importance here is there's a difference between Piñon Canyon and its environment and its weather and its environment and Fort Carson, so we have to keep those two separate to be able to go with that.	While PCMS is a unique location, CAB operations at PCMS would not have the type of substantial independent utility that would call for separate analysis. CAB operations are best assessed as a single conceptual and practical undertaking, and they must be holistically assessed. In that process, we have reviewed and studied and considered the unique characteristics of the PCMS location.
The importance is there is impact on -- we hear about the wildlife. We hear about historical structures. We have the Santa Fe Trail. Obviously there are things that are impacted. And with that we do need to have a full EIS to do a full study on what the impact is, and more importantly, the mitigation of those items. The cumulative impact is a result from individually minor but collective significant actions taking place over a period of time. We heard in Monday's meeting that Las Animas County Commissioners issued a letter saying that they were wanting to support the idea of having a full EIS. And coming out this week I wanted to mention that Otero County, Bent County, Baca County,	

Crowley County, and Pueblo County Commissioners will have all of that in their sessions coming up this week, making a statement at that time, will be issuing a statement. And thank you for your time.				
ID: 214	**Date:** 1/26/12	**Name:** Loren Wirbel	**Method:** Transcript	**Other Notes:** Transcript – Colorado Springs
Comment			**Response**	
I write about space and avionics and the environment. And had been somewhat concerned hearing what Bill and the VCOC had said about the Combat Aviation Brigade coming in, and my concern rose in the late part of last year when some of the documents emerged that sooner or later Gray Eagle drones would be following the several varieties of helicopters that make up the brigade. What really drove this home was taking a drive past Fort Riley at Christmastime -- I'd been past that area several times -- and seeing many of the helicopters making up their brigade already in place. And seeing Fort Riley really become a significantly different Army base and knowing their Gray Eagle drones are going to be here momentarily, and recognizing that what is happening at Fort Riley now is what we'll be seeing at Fort Carson in the future. And you have to keep in mind, Fort Riley is a relatively isolated base. The town of Manhattan is fairly close. You've got some protective river areas, but there's just a lot of grassland and a lot of farmland, which in and of itself is a pretty major thing, but not the degree of archeological sites, BLM, U.S. Forest Service type of land that we see around here. And here we're talking about a base that is adjacent to an urban area as well as to Pike National Forest and several BLM properties. Now, the commissioner that was just up here talked about individually minor but collectively significant actions, and Bill talked earlier about the whole notion of carte blanche or the foot in the door. And I've seen this take place in both the helicopter brigades and in the Air Force Special Operations Request out of Cannon Air Force Base to bring V-22 Ospreys in for training with drones. You			Thank you for your comments. Please see the response to comment #1 about UASs, sometimes also referred to as “drones”. In summary, the CAB that has been stationed to Fort Carson does not have any UASs and the stationing of additional UASs to the Installation is not a foreseeable action.	

always get the drones added to the package after the fact so you can't really complain about them when anything is going on. You also don't hear a lot in the EA process about the heavy use of USFS/BLM lands. Everything focuses on the environmental effects along I-25, along the 115/Fort Carson corridor, Butt's Field, et cetera, but the real big impact, of course, is when training takes place along Rampart Range Reservoir or Mount Herman Road. I can tell you, living on the eastern ridges east of the Air Force Academy, I've seen what the impact is when the Stealth fighters fly low over my house and I hear the sonic booms. You're not going to have those kind of noise impacts from helicopters; however, even at the 500-foot level, and certainly as you get more and more of these nap-of-the-earth, Route Hawk type of flights going on in places like Rampart Reservoir or along Mount Herman Road, and you start seeing clusters of helicopters and clusters of drones in regular training, you're going to have a really big impact in what should be pristine natural areas. So remember, you're not just talking about Butt's Field, Wilderness Road, et cetera, et cetera, you're talking about the package, and they don't talk a lot about the package at the early stages of EA. That is brought under the doorway, after the fact, and all of a sudden you're looking at an EIS that includes drones, that includes larger and larger training in Forest Service areas. So let's get a real handle on the real size of the impact we're talking about. And I see in areas so close to the Forest Service, so close to urban areas, that if we were to get even an iota of the impact from Fort Riley -- and I think we're going to get many times the impact of Fort Riley -- it would simply be unacceptable to station the CAB here. Thank you very much.	As stated in Section 4.11.2.2, mountain/high altitude training required of CAB Soldiers would be conducted per agreements with applicable land owners and would not occur without appropriate NEPA analysis, documentation, and review having first been conducted. The CAB stationing action does not require additional mountain/high altitude training opportunities beyond what is in place; therefore, additional use was not part of the proposed action. Please see the response to comment #13 regarding Route Hawk and NOE, contour, and low-level flight routes.

ID: 215	**Date:** 1/26/12	**Name:** Lon Robertson	**Method:** Transcript	**Other Notes:** Transcript – Colorado Springs
Comment			**Response**	
I'm Lon Robertson, and I'm president of the Pinon Canyon Expansion Opposition Coalition. There are a lot of speakers here tonight that spoke to this EA and the concerns from a lot of different perceptions, different points of view. I'd like to relay a bit of background, too, from our perspective, and how we ended up here today as it relates to this EA and other measures. In 1983 the Piñon Canyon Maneuver Site was created. It was created in a way, in a manner, which in a lot of people's minds, even the leaders that did it then, nowadays say it was probably improper, inappropriate, because the majority of it was taken by imminent domain. It forced people off their ranches. It forced soldiers onto property that probably wasn't real conducive to the type of training that they were doing at that time. It's been used very little. It was used fairly heavily at first and then it was backed away from because of the type of ground that is there. Of course, you get back to the days of the Dust Bowl and otherwise, you understand that our country is very fragile. And that gets back to the point of Keith Goodwin saying, while it goes that different areas have different issues as far as environmentally and otherwise. One of the uses that has been very accepted or very adapted to that region, of course, is ranching, agriculture, and thus the reason that we have become very concerned, especially some six years ago when we found out that they were looking at expanding Piñon Canyon. When you look at expanding Piñon Canyon, the 235,000 acres that they have there that they weren't using a whole lot at that time, in fact very little when you consider the amount of training that's on there, and you consider the amount of cattle production, the amount of tax dollars that were lost to there, the amount of loss		Thank you for your comment. Please see the response to comment #119.	

versus the amount of gain for any region of Colorado, was reversed. I mean, you didn't get anything back for what you paid. The cost was too great. Now, again, you have businesses up here that will definitely benefit from the military and their soldiers and so forth being here. A lot of us are from military families. A lot of us have. My father served in World War II. He and my son served in the Army and the Navy. There are a lot of people that are veterans in the area of which we're looking at down there as being taken over. And so it's not an anti-American or anti-military issue. That is not why we're here. It gets back to almost everything everybody else here was saying tonight and what we've been saying for the last six years. Is we have a right to our private property. We have a right to our lives and our livelihoods. We have a right to protect that. And whenever you have somebody coming at you again and again and again, and I'm using that paraphrase from the other night from Jim Harold, who said that, we've been over this again and again and again and this EA is just another example of an attempt, in our minds -- we've not been proven otherwise -- that they're trying to take our land, by air or by ground. We have concerns that that is what's happening. There has been no effort made by the Army, or otherwise, to indicate that they are going to do other than to continue to try to make that happen. So -- I'm almost there. So I guess in my mind, I would like for people to understand where we're coming from is that we are coming from years of generations of families growing up in that region protecting that which is ours, and we'll do it 'til the end of days. And we hope that there's a better way to spend that $4 billion. And I think that it was said earlier here tonight, we have veterans that need it, we have people coming back from the war in Iraq and	

Afghanistan that have brain injuries. That $4 billion could be spent right here. Could it be spent and utilized here to help the soldiers that this community has built up and supported rather than keeping it going. I think that says all I need to say. I appreciate it.	
ID: 216 **Date:** 1/26/12 **Name:** Joseph Sanchez	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
I'm in agreement with a lot of what I heard this evening. I want to remind those of you who are new to this -- we won't call it a fight, we'll call it a friendly discussion. Someone said that they don't think maybe Colonel McLaughlin could do a whole lot. I'm sorry if I don't get your tag correct there. But I've heard people say that he's a pretty friendly guy and somebody that they feel that they can work with, and it's unfortunate that sometimes these things are just processes that we go through.	Thank you for your comment.
But I want to remind you all, and, well, make some of you aware, that promises were made when Piñon Canyon was first taken by imminent domain, and those promises included that they wouldn't take more land, and yet those acquisitions or those attempts were -- came at us time and time again.	The proposed action does not include expansion of Army lands.
Promises were made that live munitions would not be used, and yet those live munitions, with depleted uranium at times, have also occurred.	The NEPA process is integral to Army planning. It assesses the impact of proposed actions. Prior NEPA analyses are not a limit to future proposed actions, which are subject to their own appropriate NEPA review. Depleted uranium has never been used at PCMS.
And this is why there are people in the citizenry, who may be very loyal and very much in love with their nation, still frustrated that they feel like they have to fight against the very military that many of them served in themselves. It's a frustrating experience for the citizens of southeastern Colorado.	

I'm aware of something that some of you may or may not be aware of. I do a lot of research. I'm journalist. And that is that there's something called a Project for a New American Century. It's something that Dick Cheney was very involved in, and basically it calls for war for the next 100 years. And that's a horrible thing to think about for me personally, and I don't think it's necessary. And I think that we all need to become more active. We were told at the beginning of this that we didn't want to posture against war. There needs to be -- there's some other place to posture against wars. And it was called "the war." What is it? Is it Iran? Is it Afghanistan? Libya? What are talking about? Here's my card. If you know there's a place where I can posture against war and not get my head beat, tell me. Because I know the citizens for Occupy, and they're getting their heads beat for saying they don't like how things are going. That's all I got to say.	
ID: 217 **Date:** 1/26/12 **Name:** Even Weissman	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
I might just piggyback a little bit off our last speaker there. The idea of posturing against the war, I have trouble with the word "war" as kind of a clean noun like that. There's so much more to war than just that. And I -- (Whereupon, a conversation was had off the record between Mr. Rob Ford and Mr. Evan Weissman.) I'm helping you out. The reason I'm saying this is because if it were a -- if we were talking about a poop sandwich factory that was coming in, okay, we would be able to posture against the poop sandwich and the poop that was coming out of this factory. I'm sorry to make sort of a gross	Thank you for your comment.

thing there, but we would be allowed to talk about that. And so -- and then if at this factory, if the things that were being made there were getting into the water or being loud or eating -- or our children were eating these things, we would talk about that. And so I do think there are some similarities, that the point of this is war, and war is not a clean little noun. War is dirty and war involves a lot of horrible things. So -- but we are talking about the Environment Assessment, and the Environmental Assessment, if we're to begin to be serious about this, we wouldn't go through such motions, because it -- it's a joke. The environmental impact of the end situation of what this is, is war, and it is the worst thing possible for the environment, both here at Fort Carson, Piñon Canyon, and for the entire globe. That is what the preparation is for. And the introductions that came from -- sorry, I forget your name -- but the folks down at Fort Carson, there's 13 people who -- working, and I'm sure doing a great work. And I work at a nonprofit, and I would love to have 13 other people helping me out doing what I do, and I think a lot of people say that what we do is for some human good. And I'm sure that all of you individually are doing good things, but I do question – My point is, I do question -- it seems as -- if putting aside the Environmental Assessment, because that seems like it's an obvious one -- but it seems a bit more like a jobs and economic impact that we're talking about. And I don't want to bring more jobs here that the end goal is something that is bad. I would like to bring more jobs here where the end goal is for human uplift. And -- and so that's my point.	
ID: 218 **Date:** 1/26/12 **Name:** Lori Holdread	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
I'm a concerned resident of Trinidad, Colorado. And I'm married to a veteran. And I really don't like this idea that we have to say things	Thank you for your comment. Please see the response to comment #2.

like that to prove our patriotism. That's kind of ridiculous, basically. I've been standing with my ranching neighbors through six years of assaults on our community and the character of our community. We've been watching the character of our community be negatively impacted for years now. The ranchers are holding strong; the industry is strong. We have hope that that's going to stay strong, but, frankly, we don't feel that we have a voice in deciding the future vision for our -- for our corner of the state. And that's wrong. We're citizens. We have businesses. We have lives. And the character of our community is the way we want it to be, and we want it to continue to be an agriculture based area. I'm not a rancher. I just work at the college and live in Trinidad, but I moved to Trinidad because of Trinidad's character. And I don't want us to become a satellite of Colorado Springs' military based economy. And I know that Colorado Springs is looking at branching out and trying to get strong in other areas. Down in our area we've had energy companies looking at us as the strongest area for wind based sustainable energy, and they've turned their backs on us. They've looked at it and they've turned their backs because they know that they're likely to face opposition from the Department of Defense and it's financially unfeasible to even take a real strong look. So that impact is not included. We need an EIS. An EA does not cover the economic impact from sustainable energy companies that are not looking at our area anymore, so I think that needs to be included. I just think it's ironic. The Native Americans that lived in our area never realized they had to claim their property. They didn't even imagine that you had to claim your property in order to keep it safe and keep it for your own use.	

Then after that the Hispanic settlers never dreamed that they would need to claim the rights to the river water passing through their land. It just never occurred to us that we had to claim that. Then later, the people living in the canyons around Trinidad never realized they had to claim their mineral rights to keep the oil and gas companies off of their property. And I'm not saying I'm against oil and gas. I know that we need to do some of that, but the people who don't want it don't have a choice on their own property. And now here we are fighting for the right -- we're having to claim the sky over our heads as sacrosanct and part of our property rights. But now we know that we better get proactive and do it before it's claimed by the Department of Defense. So we are officially claiming that the right to the land over our -- the air over our property is ours, and if you fly below 500 feet, we will call it in as a trespass. Thank you.	
ID: 219 **Date:** 1/26/12 **Name:** Jay Cimino	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
I live here with my family in Colorado Springs, and I have a home in Trinidad. I don't know if you've seen it, but today it was reported that the Army plans to cut the number of brigades from 45 brigades to 32, to reduce the Armed Services by 80,000. Fort Carson is regarded as the country's premier Army base. In my years I have lived in six different cities. I was born and raised in Trinidad, but the greatest city of all, in my opinion, is Colorado Springs. We live here in Colorado Springs in a culture of giving. I think it was started many, many years ago, over maybe a hundred years ago, by Spencer Penrose, and he continues to give through the El Pomar and through other great foundations here in Colorado Springs.	Thank you for your comment.

The Army has contributed to this culture of giving in ways that most of us can't even fathom. There are soldiers and enlisted officers that live their lives each and every day by giving. It's important that they and their families, both active and inactive, have sacrificed and enriched this great city. We need to support them in so many ways, that we can better work with them in partnerships, in community programs, in business, social, showing appreciation, just to name a few. Our soldiers have served in Iraq and Afghanistan and all over the world, and in many cases, many times. Colonel McLaughlin will be returning to Afghanistan this spring after already serving twice in Iraq. And that's not a vacation. I don't think that would be considered a vacation. Our new commandant, Major-General Joe Anderson, has just returned from Afghanistan -- for the third time. The environment. The issue before us today is the environment and what harm will be done, particularly as we begin to get the helicopter brigade. The brigade will assist our soldiers to keep the peace in the 21st Century. Yes, keep the peace and keep the enemies off our shores. My concern is not about expanding the military, it's about preserving it. Yes, the environment. Yes, to all of that. We must -- we must put the environment -- we must safeguard the environment, no question about it, but we must also put it in proper perspective. We need to support our soldiers to save lives and protect the environment. The Army has a great record of being stewards in the environment. One last comment here, sir. We need to stand up and be stewards of our fighting soldiers. When was the first time or the last time that you said thank you for your	

service? We need to stand up and preserve this county and this great country of ours, the greatest country on earth. To quote JFK, "Ask not what your country can do for you, but what you can do for your country." The Army will lose 13 brigades, 80,000 soldiers, the size of a medium sized city. What that means is they will be asked to do more with less. I am confident our military can accomplish this mission, but they need the community's continued support. What can you -- and, yes, any one of us -- do to continue to support this great Army. Thank you.	
ID: 220 **Date:** 1/26/12 **Name:** Mary Sprunger-Froese	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
And this is an Environmental Assessment that we're making comments about, and I would like to speak a little bit to the social and spiritual environment in Colorado Springs that has -- will be affected definitely by -- if this CAB Brigade does come. I -- I just recently met with a former soldier who is not telling the same story as some have. As an organizer with the Iraq veterans against the war he told us of some very deep pains that he has and that he will have to deal with for the rest of his life because of what he was evolved in, and he told us about the need of many soldiers to have someone to talk to about the trauma that they have experienced and the healing that they need. That's the kind of work I would like to do. That's the kind of work I wish all of us would do, and that's where I would like to see the money go, and I would like to see it be the last soldiers. And I would like to see all of them come home. I would like to see all of them healed, and I would like to see us give them new jobs in building life. Martin Luther King had an Army of nonviolent soldiers. They accomplished what no Army, with all the firepower on earth, could	Thank you for your comment.

have accomplished in this country. Today he's recognized with a holiday and with people saying he taught people how to get along. Yes, he did. He also suffered incredibly, as did his family, as did all the people who were part of his movement. Did he not think that change would be easy or that it would come without suffering or without giving up some of what we think of as security. But he called us to a beloved community, and I think that's possible, and I think it's possible when each of us is willing to make a choice. And I will hope that we will choose life, whether it's for the protozoa or the many things I don't even know about that exist or whether it's for the lovely human race that indeed is a little lower than the angels, but we've been given incredible magic for the short time that we are here, and we can do it together. And I don't believe that increasing our military presence is the way to do it. I think all of us need to be transformed, and I think we can transform these structures. I think we can be nonviolent soldiers for the sake of all the children that come after us.	
ID: 221 **Date:** 1/26/12 **Name:** Steven Handen	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
I was surprised by the number of people that identified themselves at the beginning of this as being -- the word environmental is in your job title. It seems to me -- I don't know what the argument is that you bring in 125 helicopters, 2,700 new soldiers, and all this stuff, it's going to have a negative impact on our environment. What else can you do. It's going to disturb wildlife. It's going to disturb the sky, the noise, the pollution. You burn tens of thousands4 of barrels of oil over our city, our area. It's got to have a negative impact. So agree. If we're closing up these brigades all over the country -- and somebody told me. I don't know if this is exactly correct -- the Pentagon already owns 40 million acres in this wonderful country of ours. When is enough enough?	Thank you for your comment. As noted in Section 1.1, this proposed action is for implementation alternatives in response to the CAB stationing decision already made by Headquarters, Department of the Army.

If we're closing up brigades someplace else, put these helicopters in those places. If we've got all this vacant real estate, well, let's use it. Who is driving -- who is driving building new projects here when we got all this excess stuff around the country? Well, somebody stands to make a lot of money for this – this thing coming in. So it's driven not by national defense; it's driven by corporations that profit from this particular thing, especially if we got this vacant real estate. So that's one of my objections to the coming of this CAB. And I would agree with one of the former speakers, yeah, we ought to honor the soldiers that are here, but I don't think we have to bring more in. We have enough here right now. And enough is enough. And when is enough enough. I just have one -- I guess sort of a moral objection to this whole thing also is the cost. I spend my life and my workday working with marginalized people. People with mental illness. People who are homeless. People who are hungry. People who don't have medical care. Kids that are in trouble. Domestic violence. All that kind of stuff.	
And as far as I'm concerned, there's a direct relationship between the blank check that the military has to build up these kind of things and the deterioration of the social services that go on in this country. And I agree with some of those other speakers that that money could be spent much more wisely for peaceful endeavors instead of warlike endeavors. Those helicopters are not meant to protect the environment. If I understand it correctly, their job is to destroy the environment. They	The Army endeavors to be good stewards of both taxpayer dollars and the environment.

have bullets and bombs and guns and they blow things up, and that's the mission of those. And when the Army has environmental specialist, I'm not exactly sure what they are trying to sell us with this particular thing, but as just an ordinary citizen it sure goes over my head. Thank you.	
ID: 222 **Date:** 1/26/12 **Name:** Peter Sprunger-Froese	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
I too will not reiterate what has been said. The reference to enough is enough was paramount in my speech and now I don't need to say that thanks to a number of other references made to that. So I will only say that years ago it was deemed by the system that we would finally be secure when we had our first nuclear bomb. Alas, the bomb didn't deliver. The escalation continues, and we know that it has been driven totally by the profit world and, of course, by the sacred cow called national security that provides the justification for this. I believe there is another way to look at this, and I have never seen a military intellectual even begin to look at the likes of political scientist Gene Sharp, who was deeply inspired by the likes of our Martin Luther King, by the likes of Mohandas Gandhi, and said, There is a way that we can all live on this planet for one another -- one another's benefit without anybody being at the disadvantage. This is what I believe is the paradigm that we need to explore and can explore. It's called the power of love.	Thank you for making us aware of your concerns.
ID: 223 **Date:** 1/26/12 **Name:** Ester Kisamore	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
Some of the writing isn't always too clear. First of all I just want to say that I really want to be supportive of the ranchers in southeast Colorado. We have been a part of that movement, I think, since we first were aware of it. And I will just be very, very, brief. Each year when we celebrate Martin Luther King, Jr., I am always	Thank you for making us aware of your concerns.

disappointed because nothing is ever mentioned from his speech April 4, 10 1967 at the Riverside Church. And I just want to end with his quote. "A nation that continues year after year to spend more on military defense than on programs of social uplift is approaching spiritual death." And I think it's something we really need to think about in this city, this state, this county, and this country. Thank you.	
ID: 224 **Date:** 1/26/12 **Name:** Steve Wooten	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
And in beginning, in the initial expansion in the 1970's, the Army's first proposal was to acquire lands in El Paso and Pueblo counties. Both communities fervently opposed expansion that would have made Fort Carson contiguous with its new lands. What you did is shove it down our throats in southeast Colorado. You had a chance to show your loyalty in 1979 and 1980 and you pushed it on us. We've borne that black hole in our lives for 30 years. Now, to the EA. In Section 4.5.1.2.2, the soils unit, there's a paragraph in there that I read through that and I kind of went on reading and I came back and I went, I can't stomach that one. And I'll read it. "Contributing factors leading to soil erosion at the Piñon Canyon Maneuver Site are much different than those at Fort Carson. Soil erosion caused by water typically is a result of larger storms, more than a half inch, which occur on the average of less than six days a year on any given year. "However, the fine and silty nature of some of the predominant soil types and dry conditions mean that Piñon Canyon Maneuver Site is more susceptible to wind based erosion than water erosion for most of the year, with the exception of a limited number of days of heavy rainstorm." Here's where I have the problem. "Extensive overgrazing prior to 1983, vegetation removal and soil compaction from mechanized	Thank you for your comment. Section 4.5.1.2.2 has been revised to remove the “extensive overgrazing” statement. We appreciate your comment which helped

training have contributed to that erosion and erosion potential." This paragraph is not annotated. So I know we're not supposed to ask questions, but I went back into the reference section.

(Whereupon, a conversation was had off the record between Mr. Rob Ford and Mr. Steve Wooten.)

And I went through your reference section and there's nothing in here by any of the topics that gives you methodology, the name of the scientist, and the means by which that conclusion was reached in that paragraph, line 11 through 18.

So I'm asking today: Tell me the scientist that did that study, that came to the conclusion that that land was overgrazed. Because failing to have that scientific methodology explained to us and showing that it was done over a period of time, plant physiology was taken into consideration, timing of grazing, timing of the study, everything that we do as natural resource managers, that's a dangerous statement. Furthermore, it desecrates the memory of the reaching families that were displaced from their ranches in 1983, many times by the use of U.S. Marshals.

When a rancher overgrazes, he goes out of business. When the expansion occurred those ranches were in business. They still had resources. They were managing their resources in a sustainable manner that kept them in business. They suffered periods where calf prices, you lost $60 a head on every calf. Then when they got to the other side of the cycle they hoped to break even and service the bank.

It's shameful to use an anecdotal opinion statement in a scientific document.

Thank you.

ensure errors in the Draft EA are removed prior to the development of a Final EA. This is one of the purposes of the public comment period.

We demand, PCOC and members in opposition, that this and other anecdotal opinion statements be removed from this document, and if it fails to meet the test of scientist need, the EA itself is flawed and we need to move to EIS where we will annotate and go to scientific methodology.

In contrast, the private citizens in 2011 commissioned Colorado Natural Heritage Program to conduct a biodiversity study on the lands around the Piñon Canyon Maneuver Site and Huerfano, Las Animas, and Otero counties.

In their executive summary -- and this can be found on the website of the Colorado Natural Heritage Program at CSU.

"Overall, the condition of the biological resources in the study area is excellent, and current management appears compatible with biodiversity in most places. This area harbors the largest intact working landscape remaining not only on Colorado's eastern plains, but also in the entire short grass prairie region. The short grass prairie partnership, annotated by Neely, et al., has identified this area as having high landscape integrity, very high conservation value. A testament to the quality of management by the landowners in that area."

In the subsequent addendum to the west region, by CNHP, in that executive summary of 2009, "Southeast Colorado is positioned at a crossroads of several different biographic units. Many species found in southeast Colorado are more common to the Chihuahuan Desert. Here they are mostly in their northern range. Species from the southern plains occur here at the Edwards Plateau as there is no sharp boundary between these biogeographical units. Representatives from all these zones mix."

"The vast majority of this study is privately owned. With the loss of the prairie's most significant grazer, the bison, cattle grazing has

become a crucial ecological process for maintaining habitat condition on the prairie." "The number of places supporting species and habitats of conservation concern is a testament to the ongoing stewardship of Colorado's ranching families. The future of this landscape rests in their hands." I will leave it there. I'm out of time. Thank you.	
ID: 225 **Date:** 1/26/12 **Name:** Randy Gradishar	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
I'm here tonight supporting our troops in the partnership while preserving Colorado Springs down to Trinidad. In preserving and keeping all so that our military, and we as a nation, will be still the most powerful military in the world. My only qualifications, my dad served in World War II and I had a couple uncles. I was in two years of ROTC at Ohio State University. Had other uncles and I got a brother-in-law who is a permanently disabled Vietnam vet. So those are my qualifications along with just being a Colorado citizen and resident. I agree that the environment is certainly critical and believe that we, as of Colorado, here in Colorado Springs down to Trinidad, that if we can achieve a workable plan that protects our environment along with our freedoms. I do know a little bit about training and practice, and certainly have a little bit of appreciation for what our military, not just here at Fort Carson, but our military around our country, stands for. I've had the opportunity to be to -- been three different trips over to Iraq and Afghanistan and Qatar and Emirates and thanking our troops, seeing the sacrifice, as you all know what that costs and what that sacrifice is to our families, to our military, as we here in the United States. And I'm proud of our military, just as you are. And someone had	Thank you for your comment.

mentioned, a young lady had mentioned Trinidad. Trinidad is the city of champions. I'm from Champion, Ohio. I don't know if anybody knows or cares, but the word champion defines itself. Champions -- and we are all champions in this room and here in Colorado Springs and in Colorado. Champions are warriors, defenders, advocates, support. So as champions, I believe we can all be teammates, because we're all champions. And as a community, developing that partnership, that community, that everyone can win. When we can win with our protection, with an environmental protection, along with we can win, continue to win, with our freedom. And you can count on me that I will be praying for God's decision for us here in Colorado and the people here in Colorado Springs and all the people that it affects, that we have God's decision and not ours. Thank you.	
ID: 226 **Date:** 1/26/12 **Name:** Chuck Murphy	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
I was born and raised in Colorado Springs. I'm a general contractor. Own property in Trinidad. Love the environment. One of my passions is photography. I'm also a confirmed realist. I wish there wasn't any wars. I wish there wasn't an Iraq and an Afghanistan. I'm not sure that they were necessary, at least one of them wasn't, I don't believe. I greatly appreciate the military. I have a son who spent six years in the Navy. I was in the Navy Reserves myself. And every time I see a soldier, I thank them for their service. I -- as a realist, I believe that the Piñon Canyon will be a helicopter facility. I don't think there's any escaping it, and so I think the big thing is is to work with the Army and work with the environmentalists and make sure that it's protected. And I think that you being here this evening speaks volumes about the protection you expect to have.	Thank you for your comment.

For you cattle ranchers, I want you to know that I have 95 head of Blank Angus cows and over 200 head of boer goats, so I know a little bit about -- not much -- but a little bit about the cattle business, too. I'm proud to be here. I am certainly proud of our soldiers. I've come in contact with a number of them at Fort Carson and in Trinidad, and it's no -- years ago -- the first time our country was attacked was in Hawaii, and the second time it was attacked was the 9/11. Years ago all of our focus was on the outside of our boundaries and now it's necessary if our focus to be inside the boundaries as well. I wish it wasn't necessary to have all these defenses, but the world is what it is today and it's the one we have to live in, and I believe we can do it together. Thank you.	
ID: 227 **Date:** 1/26/12 **Name:** Tom Warren	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
It's good to see a lot of folks here that I've seen or haven't seen in a while. Good to see you again, too. One of the points I just want to make that echos the comments of the last speaker, Fort Carson, right, wrong or indifferent, believed or not believed, has a righteous history of being environmental stewards, and they've done that through involvement and engagement with individuals. And as you all know, whether it's these public meetings or some of the ones that started six years ago in different places and the demographic was a couple, 600 times more than this, maybe. The comment I just want to give you, is while you're looking at any NEPA document, understand that it's a living document. Perception is indeed reality to some, but I always add, except for the apathetic which never seek the real truth. And that truth has a tendency to	Thank you for your comment.

change, depending on what the issue is and how burning it is at the time. But I will tell you that in the case of the Department of Defense, they are required, just as a part of this NEPA process, to involve the public in the stewardship of that public trust. And in this case that can be found in the action documents called an Integrated Natural Resource Management Plan and Integrated Cultural Resource Management Plan, Integrated Training Area Management Plan. And in this era of ever increasing fiscal austerity, one has to look, and I would suggest to you, and my only qualification for this is about 37 years of doing it before today, is that you have to look at the deployment and implementation of those documents in order to hold anyone accountable, whether it's Colonel McLaughlin, or any of the 13 environmentalists or resource stewardship personnel that were identified earlier. That is where the rubber meets the road, at least from my perspective, in the day-in and day-out implementation of both the inherently legitimate military training mission, and more importantly, the resource stewardship and sustainability of that environmental resource upon which that mission depends. Thanks, Rob.	
ID: 228 **Date:** 1/26/12 **Name:** Joseph Rhea	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
My special interest -- I have a special interest group, I'll confess. My special interest group are my children, my grandchildren, my great grandchildren, who are residents of the state of Colorado. And their stake in the success and advancement of Colorado Springs stems from their concern about jobs and about the economy in this state that's strong. With respect to the Environmental Impact Statement itself, I'm a little stumped, I must admit, with all the concern about these short grass prairie grasses, since less than 40 percent of that grass coverage is native in terms of the original prairie grass. It wasn't	Thank you for your comment.

there and isn't. Now, it's important, of course, with respect to the economy of this state that agriculture remain a major effort, but I will confine my remarks to a few short statements about the economic impact of ranching in the area that we're talking about. Excuse me while I reach that. In cattle and calves inventory, Las Animas County, with its vast acreage and it's 321 farms and ranchers, muster an inventory of less than 50,000 cattle and calves each year with a net cash income of $677,000 for all farming and ranching operations. UNIDENTIFIED SPEAKER: How much cattle does Fort Carson offer us? Only 30,165 acres of the 2 and a half million acres in Las Animas County produces harvested crops. Even more interesting, 154 of these farms and ranches in Las Animas County receives about $1 and a half million in government payments, more than 10 percent of all government payments made to all of agriculture in the state of Colorado. Talk about feeding at the U.S. and Colorado taxpayers' public trough. My -- someone asked where my statistics come from. It comes from the Department of Agriculture. UNIDENTIFIED SPEAKER: We've seen those numbers. They don't jive. MR. JOSEPH RHEA: Well, they may not – UNIDENTIFIED SPEAKER: (Inaudible). MR. JOSEPH RHEA: -- but that's your problem and your responsibility with your agricultural representatives to see that they do.	

UNIDENTIFIED SPEAKER: Didn't we have rules about trading insults.	
ID: 229 **Date:** 1/26/12 **Name:** Rebecca Goodwin	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
In the last couple of nights I've spoken at these meetings about historic resources, and I'm not going to bring that up again tonight, so I'm not going to give anybody a heart attack. I will say, to start off, my father and grandfather both served in the Navy, World War I, World War II. My brother-in-law served in Vietnam, and his grandson gave his life in Iraq, so we do understand. My father has also spent 97 years on the same ranch. And I just want to give you a few statistics, and these are from the Colorado Ag Census and the USDA Ag Census. In Colorado -- in 2010 Colorado Ag exports increased 20 percent to $718 million. The top three Ag commodities: edible beef, increased 21 percent to $389.9 million, and hides increased 20 percent to 131 million. Beef exports to Japan -- if you want to look at our economy -- increased 21 percent to $71.6 million. We worry about our export and our trade deficits. Look at agriculture. We're making that difference. Our exports to Korea in 2010 increased 31 percent to $46.3 million. La Junta is the United States' second largest cattle market in the country, and in 2010, $111 million of cattle were sold in Otero County. Now, we make a difference, and we are a big part of Colorado's economy. This CAB and what goes on down there and this expansion will	Thank you for your comment. The proposed action does not include expansion of Army lands. As a

adversely affect our lives, our economy, the economy of Colorado and who feeds our soldiers. Thank you.	result of the analysis, the Army has concluded that the socioeconomic impacts of implementing the proposed action would be less than significant.
ID: 230 **Date:** 1/26/12 **Name:** Stan White	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
Some of you folks in the back of the room might know me as Bill Smith, but that just depends on the – America has already got the strongest military in the world. We've been doing a great job on our troops, haven't we? Mr. McLaughlin, great job. Great job. Why we do we need another 6.9 million acres, when we've got -- if you go look -- to 38 million. If we got to have more, we need some new help. I'll get done with these kind of snide comments in a minute. Yep. If this EA were to pass, there are a couple of things that would happen without question. Fort Carson and Colorado Springs would grow by several thousand people. You've all seen that on the news lately. Several thousand would also be removed from southeast Colorado by the Army's own documents. Somewhere around 17,500. It would not happen initially. It would happen over a period of 15 or 20 years. Based on the Army's own forecast. If I would like to see that, you get on the PCOC website and you will be shown that in their own document. Those who would support this expansion -- besides from you boys in fatigues. I know why you're doing it. Don't blame you -- the rest of you, I would suggest, before -- before you -- before you say, you ought to give up what I've got. What I've worked for. What my family has worked for for five generations, consider giving up your home, your job, in its entirety. Get the heck out of Dodge, just go on, get	Thank you for your comments. The proposed action does not include expansion of Army lands. As noted in Section 1.1, this proposed action is for implementation alternatives in response to the CAB stationing decision already made by Headquarters, Department of the Army.

out of here. Whatever your business may be. Show us you're a hero. This EA is deeply flawed and would never withstand judicial review. That's on the EA. I'll tell you, read it. It's laughable. There's a problem. I'll give you a solution. Contact your politicians. That's where it's at. That's the cheapest way to get this done. They hold the purse strings. It don't happen unless they say it's going to happen. It's kind of weird, but that's the way it works. Thank you.	
ID: 231 **Date:** 1/26/12 **Name:** Eddie Ming	**Method:** Letter **Other Notes:** N/A
Comment	**Response**
See comment #2.	Thank you for making us aware of your concerns. Please see the response to comment #2.
ID: 232 **Date:** 1/26/12 **Name:** Bob Kinsey	**Method:** Transcript **Other Notes:** Transcript – Colorado Springs
Comment	**Response**
My name is Bob Kinsey. I live at 615 San Fernando Place in Colorado Springs. I represent the Green Party of Colorado, as well as being a citizen of Colorado in a lesser sense. is will do to the environment in the future. We have a couple of concerns that relate to a Pentagon paper that was issued back -- early on in this last decade, about 2001, maybe, that says that the greatest threat to the national security of the United States is global climate change. And so we're wondering, what in the world we have to be building a helicopter battalion that's going to spend 25,000 hours in the sky chewing up petroleum and adding climate changing gases to the environment, in addition to all the operative machinery in these practice sessions. That -- that will damage the environment in a general sense, overall. Plus it's -- it's committing the Army to a -- a policy that doesn't take into consideration the fact that global climate change is the major threat to the national security in the United States.	Thank you for your comment. As noted in Section 1.1, this proposed action is for implementation alternatives in response to the CAB stationing decision already made by Headquarters, Department of the Army. Please reference the 2011 *CAB Stationing PEIS* for the analysis conducted for that action related to potential greenhouse gas and climate change impacts.

It's taking money from our national budget, which we should be spending to create an economy which would be able to reduce the threat of global climate change by adding a new military expense, which in fact, adds to the possibility of increasing the speed of global climate change. So this is a larger sense of an Environmental Assessment than just what will impact southeast Colorado. We're talking about the whole planet here. And -- and the strategy of the Army to build more and more machinery to carry out petroleum based military operations, opposed to their very own assessment that climate change is the major threat to national security. And that's a Green Party issue and a Green Party position, and, therefore, we object to the damage that this will do to the environment in the future.	
ID: 233 **Date:** 1/26/12 **Name:** Jon Harman	**Method:** Letter **Other Notes:** N/A
Comment	**Response**
It is my concern that the Army's Environmental Assessment for the proposed CAB effecting Fort Carson and specifically the Pinon Canyon Maneuver Site expansion has not addressed several environmental factors in a satisfactory manner. The main issue I implore the army to consider is the permeability of its boarders. Although the Army has been presented with more than adequate quantitative data representing the potential environmental impacts on the land and air within the boundaries of expansion already established, there is little done to address the reality of the issue. Environmental contaminates resulting from the planned CAB activity at the site will not effect the Army's land exclusively.	Thank you for your comment. The proposed action does not include expansion of Army lands nor additional airspace.
One of the main tenets of environmental science is that ecosystems are connected. While the Army may have the boundaries of its maneuver site clearly marked on the map, the water of the river, and the air in the wind are not aware of these boundaries. This	The Army takes its stewardship responsibilities very seriously and recognizes that physical processes and wildlife do not observe political and land ownership boundaries. Responsibilities to control and reduce greenhouse gas are part of the Army's environmental stewardship.

means that any environmental contaminate created by the activities carried out at the Fort Carson base will be carried by the wind and water to reach areas that are outside the ownership of the Army. The area surrounding the Pinon Canyon Maneuver site has already been recognized as an area with persistent high winds. This is part of why the area is so desirable for wind farms. This same wind would carry harmful particulate matter that would be created by the aerial maneuvers practice, into the adjacent area. One of these particulates is the Greenhouse gas Carbon Dioxide (CO_2). According to the EPA, Carbon dioxide makes up 56.6% of the total anthropogenic greenhouse gases that contribute to global climate change. By restricting the radiation of solar energy back to the atmosphere from the earth's surface, Carbon dioxide raises global temperatures in ways that pose economic, social, and environmental threats for humans and animals alike. Helicopters in particular endanger the stability of our natural and human environment. Helicopters, while using a similar fuel to automobiles, get a gas mileage that is significantly lower (about 4 miles per gallon), than the average car (which is subject to CAFÉ standards, set by the EPA). Carbon dioxide persists for upwards of one thousand years in the atmosphere. This means that even if we stopped emitting Carbon dioxide, the effects would be felt by the global community for many centuries to come.

The warming of the atmosphere due to Carbon dioxide threatens human and animal life alike due to the melting of polar ice caps that have the potential for drastic increases in sea level. Sea level rise would not only destroy many different species that depend on the presence of oceanic ice (such as the Polar Bear), but threatens the economy of the United States. As nations ports are vital sources of income and commerce, sea level rise, that would destroy these ports, would endanger the nations economy. With our nations economy already recovering, such damage would be crippling for the nation.

Section 4.3.2 discusses CO_2 greenhouse gas equivalents as related to the proposed action.

The Installation also has a comprehensive program to address the management of hazardous waste, hazardous materials, and toxic substances at Fort Carson and PCMS. This includes the proper handling and disposal of hazardous waste, as well as appropriate procurement, use, storage, and abatement (if necessary) of toxic substances.

The Army acknowledges and supports sustainable energy initiatives, such as the Fort Carson Net Zero initiative described in Section 4.12.2.3 (cumulative impacts). The Army has no intent to impede or otherwise impact sustainable energy projects by private landowners.

Helicopters also release NO_x (Nitrous Oxide) which is a respiratory aggravator causing premature death due to bronchitis, emphysema, and heart disease. NO_x (Nitrous Oxide) also changes to Ozone when in the presence of sunlight. Ozone's presence in the troposphere causes additional respiratory disease and is particularly persistent and able of being carried by wind hundreds of miles from its source. This distance could be extended due to the particular wind patterns of the proposed site of expansion. NO_x (Nitrous Oxide) also eats up Ozone in the stratosphere, which although the same compound, is crucial in this particular layer of the atmosphere because it absorbs ultraviolent (UV) light, which mutates DNA in humans and can cause significant health impacts, such as respiratory conditions, for the human population.	
Separate from the issue of Carbon dioxide, the Army's plan for expansion does not address the inevitable transfer of pollutants via this strong wind currents to areas that they have no legal right to trespass on. I am also concerned about the proximity of the Purgatory River to the proposed maneuver site. While not immediately adjacent, ecology has shown that the nature of the hydrologic cycle is one of connection. The prevailing winds specific to the area and the drainages that eventually lead to the Purgatory River means those actions taken by the Army will affect the Purgatory River. Under the Clean Water Act, and the precedent set by *United States vs. Riverside Bayview Homes,* Inc., this puts the Army in violation of the Clean Water Act, as the Purgatory River satisfies the requirement for a "navigable water" pursuant to the Clean Water Act 33 U.S.C. 1323 of the Clean Water Act holds federal facilities such as military bases, of which Fort Carson and its Pinon Canyon site are apart, to comply with the standards set forth by the Clean Water Act. The Purgatory River is a tributary to the Arkansas, which is itself a tributary to the Mississippi, which flows into the Gulf of Mexico. This connection means that the Department of Defense's activity at the PCMS and its related Fort Carson site will have far reaching and profound negative impacts that will be felt	Potential impacts to surface water, to include the Purgatoire River, are an important component of the analysis contained in the EA, notably Section 4.6.

all along this massive riparian corridor, which extends past the military's jurisdiction. Ultimately, such trespass will make the Army liable for damages caused by the chemical and biological interactions with the particulates, CO_2 and NO_x along with many others, created by the activity planned for the CAB (Combat Aviation Brigade). As established in the court case *National Mining Association vs. Army Corp of Engineers*, any particulates that are created or put into circulation by helicopter activity can be considered a net gain in material present in the navigable waters of the Purgatory and consequently the Arkansas and Mississippi rivers. Under 33 U.S.C 1344, the addition of fill material is explicitly prohibited in the waters of the United States. Will, ordinary the particles deposited by CAB activity might not be considered additions pursuant to the Clean Water Act, the quantity and manner of distribution create a unique situation where their addition will be significant enough to damage these navigable waters while also constituting a unauthorized discharge. Since these particulate matter will not originate from the riverbed itself but from the adjacent area, their addition will be unlawful as established in the aforementioned case.

These are but a few of the potential impacts that will be inevitable if the Army continues with their plan for the CAB at Fort Carson. I have not mentioned the cultural history that is at risk of being destroyed if expansion is approved. Neither have I mentioned the considerable amount of biodiversity present In the area surrounding the canyon land of the Purgatory River, adjacent to the Pinon Canyon Maneuver Site.

As evident in their title, the Department of Defense is obligated to defend our nation, abroad and on our own territory. Its plan for expansion violates this normative obligation by jeopardizing the health of the American People In the Southern Colorado Area. Expansion in order to secure a site for the CAB also threatens the economic security of the United States of American by contributing

to green house gas emissions which threatens the commerce based economy that sustains many of the nations largest civic areas. I demand that the Army take these undisputable facts into account when decided whether they lawfully continue with their propose action.				
ID: 234	**Date:** 1/27/12	**Name:** Jamie L Goode	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 235	**Date:** 1/27/12	**Name:** R. Albert Goode	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 236	**Date:** 1/29/12	**Name:** Gary Vorhes	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
Stop making war on southern Colorado and its people.			Thank you for making us aware of your perspective.	
ID: 237	**Date:** 1/29/12	**Name:** Barry Albert Bussewitz	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
Please. I exhort that the Army STOP all plans to establish, train and maneuver the 13th Heavy Combat Aviation Brigade and its drones anywhere in southern Colorado. Thank you!			Thank you for your comment. As noted in Section 1.1, this proposed action is for implementation alternatives in response to the CAB stationing decision already made by Headquarters, Department of the Army. Please see the response to comment #1 about UASs, sometimes also referred to as “drones”. In summary, the CAB that has been stationed to Fort Carson does not have any UASs.	
ID: 238	**Date:** 1/29/12	**Name:** Clayton Hinman	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
At a time when we're considering rolling grandma and public education under the bus to reduce our budget, the army is continuing to push the expansion of this area. Our military has more land dedicated specifically to military only use that they control more land than many countries have for total land mass. New Mexico has enormous tracts of land dedicated to testing military aircraft and			Thank you for your comment. The proposed action does not include expansion of Army lands nor additional airspace.	

training pilots. Ever hear of multi-purposing? The area you're licking your chops over still sports Conestoga wagon tracks from more than a century ago. Prairie Schooners traveling up the SantaFe trail left their mark on our history and bear witness to the pioneering spirits of the people who first developed these lands. Covered Wagon tracks along with the trails left by semi-nomatic Native Americans (as they conducted trade, hunted, and moved to and from their seasonal camps) all are part of a roadmap of our history. Born and raised in the area, I've helped with archeological digs of the Comanche grasslands and many of the canyons in that area. Those lands are the repository for thousands of potsherds, projectile points, grinding stones, end scrapers, ceremonial artifacts, family lodges, bucks lodges, hunting campsites, and more. The duration of the wagon ruts alone bear grim testimony to the fragility of the ecosystem. Folks are paying $17.50 a pop for tarantulas when they breed and travel in droves in that area--well into the hundreds. What you are suggesting would have a profound effect on the area and those effects would remain irreversible. No president, no congress, no brass, and no military could ever undo the damage done by just one Abrams cutting cookies for 30 minutes in the area. There are over 65 pairs of breeding eagles in the lower south eastern corner of our state--enough to stop the building of towns, clearing of forests, stay saturation drilling by oil companies, and, and, and. There are also black tailed prairie dogs. Many of the scruffy pinion trees in that area are slow growth plants with life spans that easily proceed the antebellum south. Some come close to rivaling Colorado's bottle brushed pine. There are numerous Native American burial caves in that area yet no one seems to see how that should stop this expansion. Much of this area is sugar sand. The ranchers don't even drive light balloon tired ATVs across certain areas down there to keep erosion at a minimum. Anything public or private can be backed off... except when it comes to military incursions. The sad thing about this is that you know as well as I that some	

hotshot with stones the size of a school bus and a penchant for growing their position wrote this ambitious undisclosed proposal for the area. Like a constrictor, you're taking your time. You tighten up and then wait for someone to blink. Every time someone grants you a concession, you take it and then never back up. That is what our military is doing to an area that is roughly the size of Rhode Island--one eighth the size of Colorado. This proposal adds to the size of our military industry and has yet to demonstrate in any way justifies the usurping of these properties. We're talking about families who have lived for generations on this land. This is the place of their upbringing, their livelihood, and their intended retirement. The hot-shots who first proposed turning this into a military Disney World has probably retired long ago. Every time a new commander walks onto the post, he reads the existing plan and then starts cranking on it. Saying that it is "just the mission" isn't enough. It is a bogus mission. This is wrong. It is wrong for our country. It is wrong for our resources. It is wrong culturally. It is wrong philosophically. It is a wrongful use of our tax dollars at a time when we have bigger fish to fry. In time we'll say that this project was on the wrong side of history. Your recent show and tell meetings sound so empathetic and civilian friendly. The truth is that both you AND the residents in this lower area of Colorado know that it is a bit of spit and polish pageantry that is designed to diffuse part of the steam from this Anti-Military expansion myth. At the end of the day... the military will continue to push for what it doesn't need. What can we do to sour the milk and make you guys go away? What can we do to establish a permanent halt to this expansion over the ephemeral series of patches we've suffered with? Whether it means dressing like Twiddle Dee and Twiddle Dum on Columbus day and marching backwards in the parade, patronizing a Louisiana swamp witch with a ton of eye of newt, or contracting to send a tribute of fresh ground coffee for Flag Officers at Peterson and Fort	

Carson for the next hundred years... give us some sort of starting grounds. Serious as can be... So much of the conversation has centered around namby pamby temporary accommodations. What will it take to get you guys to deal yourselves permanently out of this development?				
ID: 239	**Date:** 1/29/12	**Name:** John Marroney	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 240	**Date:** 1/29/12	**Name:** Sara Ferguson	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 241	**Date:** 1/29/12	**Name:** Kim Krisco	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 242	**Date:** 1/29/12	**Name:** Jamie M. Smith	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 243	**Date:** 1/29/12	**Name:** Patti Nelson	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 244	**Date:** 1/29/12	**Name:** Name illegible	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 245	**Date:** 1/29/12	**Name:** Kerry Appel	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
1. U.S invasions, wars and occupations harm the autonomous,			Thank you for your comment. The proposed action does not include	

physical, economic, cultural, political and human rights environments of foreign countries. 2. U.S. invasions, wars, occupations and drone strikes kill and injure many times more innocent men, women and children than actual combatants. 3. Killing innocent civilians creates more resentment and hatred toward the U.S. which probably results in an increase of violence, or attempted violence, toward the U.S., its citizens and its interests. 4. More violence against the U.S. results in more wars by the U.S. against foreign countries and more environmental damage and large numbers of civilian deaths and injuries (which creates more hatred and resentment against the U.S., ad nauseam). 5. The recent wars in Iraq and Afghanistan have had the aforementioned negative consequences and have not benefited the people there nor those in the U.S.. Both countries are in far worse condition and are far more unstable after all of the years of war there and after all of the deaths and injuries to civilians there and to the U.S. troops who served there. 6. Proposed expansion and increased use of PCMS harms the economic, cultural, physical, political and human rights environment of the U.S citizens of SE Colorado as well as threatening their security and their future. 7. Proposed expansion and increased use of PCMS also expands the ability of the U.S. to increase the current policy of aggressive foreign wars with the resulting increase in the environmental damage and the killing of innocent civilians as well as the deaths and injuries to U.S. military personnel.	expansion of Army lands nor additional airspace.
ID: 246 **Date:** 1/30/12 **Name:** Darcey (no last name provided)	**Method:** Email **Other Notes:** N/A
Comment	**Response**

I have signed the petition and am now writing to say I am OPPOSED to the new $5 billion heavy combat aviation brigade and its drones anywhere in southern Colorado and northern New Mexico. The Army needs to drop their ILLEGAL plans to establish, train, and maneuver anywhere in these areas.			Thank you for your comment. Please see the response to comment #2 regarding airspace and private property rights. Please see the response to comment #1 about UASs, sometimes also referred to as "drones". In summary, the CAB that has been stationed to Fort Carson does not have any UASs. The Army's legal obligations and requirements have and would continue to be met for both the CAB stationing decision and the proposed action.	
ID: 247	**Date:** 1/30/12	**Name:** Ronald Dulle	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
Once again I am opposing your stealth attempts to expand the Pinon Canyon Maneuver Site -- pushing the Heavy Combat Aviation Brigade, its drones and helicopters, ground personnel and vehicles into the airspace and communites of Southern Colorado and Northern New Mexico. I have lived in southern Colorado for over 40 years. I remember well the damage to cattle, wildlife, and the environment we endured by the jets flying close to the ground in formations that rocked the foundations of our homes and took away any feeling to safety. Eventually we prevailed in our protests. Now we are being subjected to a whole new proposal to make our area another battle field. Stop It. Find a better plan on other tinstallations. We will continue to fight.			Thank you for your comment. The proposed action does not include expansion of Army lands nor additional airspace. Please see the response to comment #1 about UASs, sometimes also referred to as "drones". In summary, the CAB that has been stationed to Fort Carson does not have any UASs.	
ID: 248	**Date:** 1/30/12	**Name:** Paula Ozzello, Chairperson Southern Colorado Environmental Council	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
Good morning folks: a quick email to let you know that we are doing a supplement to our response to the EA. Will be submitting it tomorrow or Wednesday. In it we have adjusted our figures regarding fly overs of the private sector -AGL 1,750 ft to 3,000 ft.			Thank you for your comment. Please see the response to comment #13. Army aviators stationed at Fort Carson follow the requirements of Army Regulation 95-1, *Flight Regulations*, and Fort Carson Regulation 95-1,	

We do feel after conversation with you and your staff and further research by some of our members, that it is more reasonable regarding a realistic altitude range for the helicopters to fly at. We hope we can find an AGL that is common ground with the garrison to present as revision to 95.1 regulations. Looking forward to your feedback on this.	*Local Flying Rules and Procedures*. While the regulation provides that Army helicopters may fly as low as 500 feet AGL, they must also maintain a minimum slant distance of ½ nautical mile away from persons, buildings, animals, and manmade structures at all times. Please note that ½ nautical mile means that a helicopter should not approach observed wildlife closer than 3,038 feet.
ID: 249 **Date:** 1/30/12 **Name:** Georgiana Anderson	**Method:** Email **Other Notes:** N/A
Comment	**Response**
SEND YOUR TROOPS TO TEXAS TO TRAIN.THERE IS NOTHING THERE WORTH SAVING EXCEPT FOR BIG BEND.THEY'LL BE WELCOMED. CHEERS	Thank you for your comment. As noted in Section 1.1, this proposed action is for implementation alternatives in response to the CAB stationing decision already made by Headquarters, Department of the Army.
ID: 250 **Date:** 1/30/12 **Name:** Georgiana Anderson	**Method:** Email **Other Notes:** N/A
Comment	**Response**
WHAT IS THE MATTER WITH THE MILITARY. YEAH IT SOUNDS LIKE A NIMBY BUT I DON'T LIVE ANY WHERES NEAR THERE. I SAID EARLIER,USE TEXAS. IT ISN'T GOOD FOR ANYTHING ANYHOW.ITS POLITICS SUCK .	Thank you for your comment. As noted in Section 1.1, this proposed action is for implementation alternatives in response to the CAB stationing decision already made by Headquarters, Department of the Army.
ID: 251 **Date:** 1/30/12 **Name:** Connie Hoffman	**Method:** Email **Other Notes:** N/A
Comment	**Response**
I strongly oppose the 13th Combat Aviation Brigade and all equipment attached. Please save our ranch lands and valuable grasslands.	Thank you for your comment.
ID: 252 **Date:** 1/30/12 **Name:** Ronalde Dulle	**Method:** Letter **Other Notes:** N/A
Comment	**Response**
See comment #2.	Thank you for making us aware of your concerns. Please see the response to comment #2.
ID: 253 **Date:** 1/30/12 **Name:** Rita Jacques	**Method:** Letter **Other Notes:** N/A
Comment	**Response**
See comment #2.	Thank you for making us aware of your concerns. Please see the response to comment #2.

ID: 254	**Date:** 1/30/12	**Name:** Daniel R. Davis	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
I am writing because I believe a site specific Environmental Impact Statement needs to be done on the PCMS proposed new use of more vehicles, low flying aircraft, and more individuals traversing the lands known as PCMS.			Thank you for your comment. Please see the response to comment #105.	
I am Daniel R. Davis, I spoke at the meeting you held at OJC, in La Junta, CO on 24 Jan 2012.I referred to studies conducted for the US Air Force in cooperation with the Department of Wildlife and the Environmental Protection Agency. These studies covered a wide variety of animal species including dairy cows, feeder cattle, pigs, waterfowl, and varieties currently in the area. The summary of these papers can be found at www.nonoise.org/library/animbib/aninbid.htm. Since they were conducted for the US Air Force, the complete text could easily be obtained by you from the US Air Force. I would have a much more difficult time to obtain or purchase these same studies. The summaries however, included the stoppage of milk production of dairy cows, the interference of gestation of numerous species, raising of heart rate, interruption of thyroid activity, disorientation, changes in nesting routines, and digestion of foraging animals including feed cattle. Since cattle ranching is a major activity in the area, the damages to owners on and surrounding the PCMS area would be affected, and would be a monetary loss not a financial gain for the area. These studies all considered sound elevation of helicopters, low flying fixed wing, and jet aircraft. Some were done as observational studies, and some with experimental noise reproduction of various intensities. Native animals such as snakes, toads, and rabbits were also affected by changes of behavior from low flying aircraft as well as larger animals such as deer, and antelope which are also present in the area.			Thank you for provision of the 1988 document, *Effect of Aircraft Noise and Sonic Booms on Domestic Animals and Wildlife: Bibliographic Abstracts*. Research continues on the noise effects to wildlife by Federal agencies, institutions of higher learning, and others. The Army strives to ensure our analyses are based on sound science as we meet our NEPA obligations. Fort Carson directly supports some of these studies, such as the one noted in Section 5.6.2 of the 2011 *CAB Stationing PEIS.* Additionally, Section 4.4.2.2.4 has been updated to incorporate preliminary results of an ongoing wildlife study associated with noise impacts at Fort Carson.	
The noise affects on people was not included in these studies, but personal testimony at this meeting attested to the fright, and			As noted and further expanded on in the response to comment #2, Army aviators must follow a variety of laws and regulations to ensure their own	

agitation experienced by some, and possible injury from riding or working with animals such as horses and cattle during a low level flight that surprises the person and/or animal being ridden or working with at the time.	safety, the safety of other aviators, and the safety of the general public, as well as to minimize annoyance and infringement of a property owner's enjoyment of his or her own land.
Also mentioned were the wagon tracks from the Santa Fe Trail which can still be seen from different vantage points, tracks which were made over 100 years ago by wooden wagons that weigh much less that armored tracked vehicles which according to your EA will be limited in their damage to the fragile soil of this part of Colorado.	The proposed action does not include any armored tracked vehicles.
The federal government owns over 650 million acres of the US (nearly 30% of its territory. Colorado is the tenth most owned by percentage state in the US with 36.6% owned by the federal government. All these lands except those given to the Indian tribes as foreign treaties belong to the states. That means the federal government misused its authority and abandoned the US Constitution in taking land belonging to the people or the states and then prevented its use by the people. We the people have had enough of false promises, misuse, misleading, and misuse of our lands.	
We have put you on notice that the use of our airspace (that limited below 500 feet by US law) is ours and that anyone that violates that airspace is in violation of our rights and the laws of the United States of America.	Please see the response to comment #2.
The federal government has too much land that belongs to the people, the Army and the other branches of our military have too much land to use for training, live fire, maneuver, housing, and administration of the units needed to defend our country from enemies foreign and domestic. The endless policing of the world by US forces must come to an end and when it does, the military will be gutted and reduced as has already been proposed. Again, our	

founding fathers knew how to use our military - to defend ourselves only after provocation. We were never to establish bases all over the world, occupy foreign lands, or become a policeman for the world because the other countries are too cowardly to fight. When people want freedom, they will fight for it themselves or not and live under the tyranny they deserve. We as Americans can not fight their battles. We learned in Vietnam, Iraq, Afghanistan, Lebanon, Libya, and Egypt that the people there will determine what form of government they will have, not us, no matter how much blood and treasure we forfeit for their sakes. We the people are the militia, according to Benjamin Franklin - "all the people with a gun, except for me (I am too old to be of any use), are the militia". While our politicians fight us to take away our God given rights to defend ourselves, the military is silent to "uphold and defend the US Constitution". Instead, you are joined with politicians to take private property from the people, instead of protecting the rights of the people from the government. You do not seem to understand America and yet you profess to defend it. Read the Federalist Papers, there are many versions in plain English which spells out each line of the US Constitution and why that line is there and what it means. I suggest every soldier read them so they know what it is that is America the federal government joined by individual States that were independent nations, for their mutual defense and common good. Slowly the socialism of the world has crept in and taken away our states rights, personal rights, and freedoms and no one is protecting them. We the people have awoken now and not one more right, inch, or liberty will be taken from us.	
ID: 255 **Date:** 1/30/12 **Name:** Jamie M. Smith	**Method:** Letter **Other Notes:** N/A
Comment	**Response**
See comment #2.	Thank you for making us aware of your concerns. Please see the response to comment #2.
ID: 256 **Date:** 1/30/12 **Name:** Michelle Butler	**Method:** Letter **Other Notes:** N/A
Comment	**Response**
See comment #2.	Thank you for making us aware of your concerns. Please see the

			response to comment #2.	
ID: 257	**Date:** 1/30/12	**Name:** Rick Butler	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 258	**Date:** 1/30/12	**Name:** Otero County Office of the Commissioners	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
Otero County has received a draft copy of the proposed Fort Carson Aviation Brigade Stationing Implementation Environmental Assessment. Due to the obvious and inevitable environmental impacts that the aviation brigade will cause to the Pinon Canyon Maneuver Site (PCMS) landscape, the Otero County Board of Commissioners requests your support in commissioning a full Environmental Impact Statement (EIS) to determine the precise effects of the aviation brigade upon PCMS and surrounding area. Your support of a site-specific EIS will assist this community in understanding the brigade's effects to PCMS. This Board believes that a PCMS-specific analysis is warranted in order to comply with Section 1.6 of the PCMS Transformation Environmental Assessment as it will establish the actual impacts to PCMS and thereby enact National Environmental Protection Act (NEPA) safequards to prevent irreversible damage to terrain. Until further analysis is performed, the effects upon PCMS are more speculative than defined. As Garrison Commander, charged with ensuring compliance to all rules and regulations regarding the use of PCMS , this board quests your support of the suggested PCMS EIS. We look forward to receiving a formal Notice of Intent to perform the EIS. Thank you in advance for your consideration. Sincerely, Kevin K. Karney, Chariman			Thank you for your comment. Please see the response to comment #105. While PCMS is a unique location, CAB operations at PCMS would not have the type of substantial independent utility that would call for separate analysis. CAB operations are best assessed as a single conceptual and practical undertaking, and they must be holistically assessed. In that process, we have reviewed and studied and considered the unique characteristics of the PCMS location.	

Keith Goodwin Jim Baldwin				
ID: 259	**Date:** 1/31/12	**Name:** Paula Ozzello, Chairperson Southern Colorado Environmental Council	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
DISCLAIMER: THE FOLLOWING SUPPLEMENT IS NOT TO BE INTERPRETED AS AN ANTI-MILITARY, ANTI-GOVERNMENT STATEMENT, OR ANTI-FORT CARSON. OUR RESPONSE DEALS WITH THE CONCERNS THE SOUTHERN COLORADO ENVIRONMENTAL COUNCIL HAS REGARDING THIS DRAFT ENVIRONMENTAL ASSESSMENT. OUR MAIN MISSION IS TO PROTECT OUR LAND, WATER, WILDLIFE AND PEOPLE OF SOUTHEASTERN COLORADO. WE HAVE SHOWN OUR GOOD FAITH BY ESTABLISHING A WORKING PARTNERSHIP WITH PCMS PERSONNEL AND FORT CARSON ENVIRONMENTAL AND ITAM PERSONNEL IN REGARDS TO SUSTAINABILITY OF A BALANCED APPROACH OF A TRAINING SITE AND A HEALTHY ECO-SYSTEM ON PCMS.			Thank you for your comment.	
Corrections: In regards to our third paragraph in our initial response, please change AGL to read 1,750 feet to 3,000 feet. In the six paragraph, fifth line, please change and insert above ground of 1750 feet or higher. On page 2, paragraph 2 please change and insert regular above ground altitude of 1,750 feet to 3,000 feet. Additional response: Section 2.3.3.5-Maneuver and Flight Operations Training-estimated			Please see the response to comment #13.	

breakouts of Training at Fort Carson and PCMS. Training by mechanized ground units at PCMS would not exceed a total of 4.7 months per year, a limited established in Fort Carson's 1980 Draft and Final Environmental Impact States for Training Land Acquisition-we have the following questions.	
Is this 4.7 months in succession –example May through September? Is it 20.14 weeks a year and if so what months would it occur? Is it 141 days a year and once again in what months would it occur?	The 4.7 months is annual total; it is not 4.7 months in succession. Various factors, to include vegetation condition, weather conditions, and use by protected wildlife species, influence the exact time period in which a unit of land is closed to military training.
Will the calving season be honored and no Combat Aviation training from January through April? Will the rutting season be honored and no Combat Aviation training between late September and to late December?	The Army has considered your recommendation that CAB training not occur from January through April and from late September through late December, a total of seven months of the year. Existing restrictions to training are in place during periods of high wildfire danger, when soil moisture conditions are determined to be too wet, due to winter roosting Mexican Spotted Owls, due to active eagle nesting, and for other purposes. The Installation is also considering ways to minimize training during April through June, two additional months, for the grass growing season. While such important concerns may be legitimately considered when scheduling training, a training ban for these months would unduly limit Army mission requirements.
The 4.7 months use, does it apply to all types of training including Division 10 Special Ops maneuver training which does train smaller units or does this app0ly only to bigger units? We need to know this because it is vital in accessing actual impact to the PCMS eco-system and cultural sites. Chapter 4.11 AIRSPACE – SPECIFICALLY PINON CANYON MANEUVER SITE MILITARY OPERATONS AREA, FIGURE 4.11-2	The 4.7 aggregate months is a limit applied to mechanized maneuver training. Special operations training is generally dismounted and has negligible impact on the land and environment.

The Southern Colorado Environmental Council does have serious issue with this MOA boundary line.	
In all our evaluation and assessment, Pinon Canyon Maneuver Site does have more than adequate air space to do all necessary combat aviation training and WE ARE ASKING THAT THE PCMS MOA BE REVISED TO SHOW ONLY THE PCMS AREA. 234,000 ACRES OF THE MANEUVER SITE IT FAR BEYOND ADEQUATE TO TRAIN OUR CAB MILITARY MEN AND WOMEN.	Please see the response to comment #2 regarding the MOA, to include when it was established.
We have great concern that this is a quiet approach, mainly step one in expansion of PCMS. It is acquiring the use of the air space over three quarters of the original expansion waiver of 418,000 acres of PCMS. Further research does show us that when the CAB is maneuvering in the air, there is the need of ground support. Ground support leads to the use of the land under the air space outside of the boundary of PCMS. Use of the land in the private sector in the MOA leads to the assumption that the land OUTSIDE THE BOUNDARIES OF PCMS CAN BE USED FOR MILITARY MANEUVERS. IT HAS BEEN MADE VERY CLEAR THAT THE SURROUNDING AREA SAYS NO. Meanwhile, PCMS solely has enough land and air space to do the necessary training of the CAB unit. When and where was this MOA established? It is seen by the SCEC as a direct contradiction to what the Secretary of the Army in his letter to Senator Udall and Senator Bennet stated that the Department of the Army has NO INTENTION OF EXPANSION AND CONSIDERATION OF EXPANSION IS OFF THE TABLE FOR FIVE YEARS. Is the Army once again only telling half-truths or no truth, even to our US Congressional Representatives? Fort Carson leadership continues to ask how they can prove to Southeastern Colorado residents that expansion is off the table. QUITE SIMPLY, DO THIS, THE PINON CANYON MANEUVER SITE MILITARY OPERATIONS AREA, Figure 4.11-2 DOES NEED TO BE REVISED, SHOWING AND UTLIZING PINON CANYON MANEUVER SITE ONLY. WE DO NOT SEE ANY JUSTIFICATION	The proposed action does not include expansion of Army lands nor additional airspace. As noted in Section 2.3.3.5, Fort Carson CAB training on lands owned by another Federal agency, a state or local government, or private landowners would comply with any existing agreements or be preceded by new agreements and their appropriate NEPA analysis, documentation, and review.

FOR THE EXPANSION OR EXTENSION OF MANEUVER TRAINING BEYOND THE BOUNDARIES OF PINON CANYON MANEUVER SITE INTO THE SURROUNDING AREA OF OUR AGRICULTURAL INDUSTRY BOTH IN LAS ANIMAS AND OTERO COUNTIES. THIS MOA AS SHOWN IN FIGURE 4,11-2 OF THIS ENVIRONMENTAL ASSESSMENT IS AN ENCROACHMENT INTO OUR AGRICULTURAL INDUSTRY. If this revision is done, then that is step one in our believing expansion is truly off the table. If the MOA area is left as is, then we will see it as Step one to expansion on the ground and that expansion is definitely still on the table and it never left, the process is just quietly preceding on course.	

ID: 260	**Date:** 1/30/12	**Name:** Bill Long, Chairman Bent County Board of Commissioners	**Method:** Letter	**Other Notes:** N/A

Comment	**Response**
The Bent County Board of Commissioners have received notice of the proposed Fort Carson Aviation Brigade Stationing Implementation Environmental Assessment; from the Las Animas County Commissioners. We are in full support of their request for a full environmental impact statement (EIS) to determine the precise effects of the aviation brigade upon the Pinon Canyon Maneuver Site (PCMS); due to the obvious and inevitable environmental impacts that the aviation brigade will cause to the PCMS. We also, seek your support of a site-specific EIS to support Las Animas County community in understanding the brigade's effects to PCMS. It seems that this analysis is warranted as being requested in order to comply with Section 1.6 of the PCMS Transformation Environmental Assessment, as it will establish the actual impacts to the PCMS and thereby enact National Environment Protection Act (NEPA) safeguards to prevent irreversible damage to terrain. The Bent County Board of Commissioners requests your full support of the PCMS EIS; ensuring compliance to all rules and	Thank you for your comments. Please see the responses to comment #105.

regulations regarding the use of the PCMS.				
ID: 261	**Date:** 1/31/12	**Name:** Frances Morris	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
Please know that I oppose the military's plans to establish, train and maneuver the 13th Heavy Combat Aviation Brigade and its drones anywhere in Southern Colorado. Signed, Frances Morris, Boulder, CO			Thank you for your comment. As noted in Section 1.1, this proposed action is for implementation alternatives in response to the CAB stationing decision already made by Headquarters, Department of the Army. Please see the response to comment #1 about UASs, sometimes also referred to as "drones". In summary, the CAB that has been stationed to Fort Carson does not have any UASs.	
ID: 262	**Date:** 1/31/12	**Name:** Stephen Harris	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
The press has reported that there will be a second public comment for the CAB stationing at Fort Carson will open March 22 and close April 23, presumably after issuance of the Final EA. Could you please confirm that this is your plan?			When the public meetings were held in January 2012 on the Draft EA, expectations were that the Final EA would be published in March, opening a second 30-day public comment period. The action is still planned but the timeframe shifted.	
ID: 263	**Date:** 1/31/12	**Name:** Joanna L Simmons	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 264	**Date:** 1/31/12	**Name:** Tom Walters	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 265	**Date:** 1/31/12	**Name:** Patricia Broce	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 266	**Date:** 1/31/21	**Name:** Lee Fulbright	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	

ID: 267	**Date:** 1/31/12	**Name:** George Russell	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 268	**Date:** 2/1/12	**Name:** Cathy Mullins	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
I am in total opposition of the CAB unit training in the PCMS area. I live in Thatcher which is directly North of the cantonment area and runway. It seems like my pasture is the Army's personal training area and I and my neighbors are sick of it. I have had 2 incidents with jets. The first was about 12 years ago when a fighter plane flew over myself and a neighbor while we were talking. The sound was deafening and it scared my dog enough for him to run through the front screen door. The second incident was this past summer when a jet flew from the N E towards PCMS. It followed Timpas Creek and was no more than 100 feet above the ground. I fell to the ground and my horses scattered. What would of happened if I or my grandchildren had been on a horse? The outcome would not be good. When the normal training is in session I hear rounds of ammo being shot at all hours. We have helicopters and large transport planes flying all hours of the day and night. Some are so low and shake the house. I have to straighten picture frames in their aftermath. I live in a Historical home that was built in 1873 and played a part in the Santa Fe Trail which is on my property. I am now seeing cracks in places they were never before. You have almost 250,000 acres out there to train on...why do we have to be constantly harassed? I am also concerned about the air, water and sound pollution. The headwaters of Timpas Creek starts here. When we have large rains the runoff comes across Highway 350 and empties into Timpas Creek. We are all on wells out here and that could be hazardous. In the last few years the dust has been incredible. The noise from			Thank you for your comment. Please see the response to comment #114. The Army takes its stewardship responsibilities very seriously, as we do our safety and public health responsibilities.	

everything flying around is ruining my personal domicile. The wild animals are terrified when in session and come to our properties to hide and drink our water. It seems like you have not thought this through enough. We do not believe that you will not try to take our lands for another 5 years. This CAB is just another foot in the door. This has to stop! We are NOT unpatriotic. My deceased husband served proudly in the Vietnam war, my oldest son served in the Navy for 8 years and my youngest son is an officer in the Navy now. I Pray everyday for our soldiers	The proposed action does not include expansion of Army lands.
ID: 269 **Date:** 2/1/12 **Name:** Suzy T Kane	**Method:** Email **Other Notes:** N/A
Comment	**Response**
Following are my Comments for inclusion in the Comments section of the Draft Environmental Assessment on the Stationing Implementation of the 13th Heavy Combat Brigade (deadline February 2, 2012): My Comments are epitomized in the EA's Table 3:2-1. Anticipated Direct and Indirect Impacts to Valued Environmental Components. The EA lists Land Use, Air Quality and GHG, Noise, Geology and Soils, Water Resources, Biological Resources, Cultural Resources, Socioeconomics, Traffic and Transportation, Airspace, Utilities, and Hazardous and Toxic Substances for both Fort Carson and Piñon Canyon Maneuver Site. The majority of the findings list the impact as "Less than significant," yet for not a single one of the categories does the report show on what these findings are based. Was a traffic study done, for example, and may we read it? Was the noise measured by an instrument such as a Sound Level Meter, and if so, what are the readouts on such an instrument? The lack of explanation, of course, makes me skeptical that any testing in any of the categories actually took place. I want to know on what basis the impact is deemed	Thank you for your comment. References used, including studies, that support the Army's conclusions regarding the significance of impact are contained in the reference sections of the January 2012 Draft of this EA, the 2011 *CAB Stationing PEIS*, and the 2009 *Fort Carson Grow the Army FEIS*. The latter two documents were incorporated by reference into this EA, a practice encouraged by the Council of Environmental Quality, who regulates the implementation of NEPA.

"Less than significant," or I will have to conclude the EA is the sham it seems.	
ID: 270 **Date:** 2/1/12 **Name:** Lisa Morrelli	**Method:** Email **Other Notes:** N/A
Comment	**Response**
Thank you for the opportunity to provide comments regarding the Fort Carson Combat Aviation Brigade (CAB) Stationing Implementation Draft Environmental Assessment (EA). As a lifetime resident of southeastern Colorado, and the fourth generation of my family to live in the area, I am concerned about the economic and environmental impact this proposed expansion of activity will have on my part of rural Colorado and the Pinon Canyon Maneuver Site (PCMS). As I am not familiar with the concerns of metro Colorado Springs, most of my comments will focus on PCMS and southeastern Colorado.	Thank you for your comment. Please see the response to comment #119 regarding socioeconomic impacts.
General Comments As I reviewed the environmental assessment I did note a lack of information provided in the document. There are a number of plans and policies referred to in the EA that have not been incorporated into the text or the appendices. I tried to locate these plans and policies from other sources with limited success. Without an analysis of the effectiveness of these plans and policies many of the conclusions reach in the EA are unsupported. There are several direct and cumulative impacts that are not addressed at all in the EA. There are mitigation measures and proposed mitigation measures that are not discussed. There are proposals to use chemical substances that are not identified and no analysis is offered as to the hazards they may cause.	Due to changes in Fort Carson's web support services, some documents that were previously available on the internet became unavailable. Based on this comment, the Installation initiated a process to reinstitute that resource and now has some key documents available to the public at the following Fort Carson Web page: http://www.carson.army.mil/DPW/nepa.html. Neither 40 CFR 1500 nor 32 CFR 651 require all reference documents be included in the appendix of an EA. This is especially true for documents which were not prepared wholly and specifically in support of the EA analysis, such as Installation management plans. In fact 40 CFR 1500.4 emphasizes reducing paperwork. The Army believes relevant cumulative impacts and mitigations are adequately addressed in the Final EA. CAB stationing implementation woould not introduce new chemical substances to Fort Carson or PCMS whose management is not already covered under the Installation's hazardous waste, hazardous materials, and toxic substances management program

These omissions and the lack of adequate information make the environmental assessment incomplete. Therefore the findings listed in the environmental assessment are not supported. A site specific full Environmental Impact Study is needed to provided complete analysis of the proposed CAB activities.	Please see the response to comment #183 regarding a site specific study and comment #105 regarding the level of NEPA analysis.
Specific Comments: ACTIVITIES	
- Section 2.3.1 Proposed Action Components, Training Strategy states that "*training under the proposed action would occur throughout Fort Carson and PCMS, to include regional airspace*". The EA only addresses the airspace around Fort Caron, flights over prescribed routes such as Route Hawk and flights within the MOA of PCMS. Testimony provided by a private citizen at the La Junta public meeting on January 24, 2012 about his experience of being flown over by an Osprey aircraft while on Comanche National Grasslands land is proof enough that military aircraft fly outside of the areas stated in the EA. There needs to be detailed information provided about flights taken outside of prescribed routes. The incident this person encountered probably was a violation of the minimum altitude and slant distance rules for aviation as the person described watching the aircraft approach in the rear view mirror of his vehicle.	The proposed action would not include any requests to the FAA for additions and modifications to existing airspace designations. The routes and airspace that would be used by CAB helicopters are already in use by Army helicopters. The U.S. Air Force and Air National Guard also use the airspace over Fort Carson and PCMS for training operations. As noted in Section 4.1.2.2, CAB units conducting aerial deployment off of Fort Carson (anywhere) would follow FAA regulations for the airspace in which they are flying.
- In Section 2.3.3.5 Maneuver and Flight Operations Training, the portion titled Estimated Breakouts of Training at Fort Carson and PCMS includes several false or ambiguous statements.	
The statement "*Training by mechanized ground units at PCMS would not exceed a total of 4.7 months per year*…" does not state the number of months during with the CAB, an aviation unit, would be present at PCMS. Since the EA is specifically to address the	As noted in Section 2.3.3.5, the Army estimates that approximately one-third of the total probable average annual flight hours of the CAB would occur at PCMS, which is about 4,960 hours. CAB support of non-mechanized training could occur at any time during the year.

impact of the activities of the CAB any statement of training must include a breakdown and totals for both types of units (an all others that may be present).

Also, defining the amount of activity at PCMS only in terms of time is misleading and inaccurate. 'Activity' is a term that applies to action much more than it applies to time. Any increase in the number of vehicle miles driven, aircraft takeoffs, flyovers or landings, or troops present is most definitely an increase in activity. There are no figures provided in the EA for these measures of activity. This is a significant error with the EA.

The statement "*The stationing of a CAB at Fort Carson would not result in a significant increase in use or scheduling of PCMS*" is false. Just a few sentences earlier a statement is made that "*it has been assumed that an aviation task force consisting of approximately one third of the CAB (900 Soldiers, 40 helicopters, and 250 wheeled support vehicles) would deploy from Fort Carson to PCMS 1 time per year for each BCT stationed at Fort Carson*". A BCT (brigade combat team) has about 3500 soldiers. An additional troop presence of 900 CAB soldiers would be a 25% increase in the number of troops and equipment at PCMS. A 25% increase is definitely significant.

- In Section 2.3.4 Garrison Construction states "*No CAB facilities construction is planned or needed at PCMS*". However, documentation provided by the Army at the public meeting held in La Junta, CO on January 24, 2012 states "*the Proposed Action also would include constructing 7 concrete helicopter pads adjacent to the existing runway at PCMS*". There is no information provided in the environmental assessment about this construction. The installation of seven concrete pads would involve a significant amount of excavation, resulting in noise, dust and drainage problems during construction. The presence of the pads would create long-term drainage issues that need to be addressed. The

As announced at the public meetings, the addition of a minor construction activity at the PCMS airfield was known to not have been included in the Draft EA. The Army publically disclosed this information and has updated this document appropriately. The concrete pads would be placed on a current crushed gravel surface, addressing such environmental concerns as accidental fuel spills and dust generated from landings and take-offs on a gravel surface. Impacts to the environment as a result of the construction activity are expected to be minor and of short duration.

The proposed action does not change the location of the Combat

landing strip at PCMS is located adjacent to Highway 350. Lands and takeoffs of helicopters so close to the highway crase the serious potential of dust as a traffic hazard. The landing strip at PCMS is also located in close proximity to the historic Santa Fe Trail. Extra precaution must be taken to protect the Trail from any and all types of damage.	Assault Landing Strip nor does it introduce a new activity to the airfield.
Table 3.2-2 lists as a future project planned at PCMS the construction of a vehicle wash facility. There is no analysis in the EA of the impact of this construction which include disturbance of the land, drainage issues and an increase in water demand. Water is a scarce resource in this area and consumption should be limited. If potable water is to be used at this facility the usage, even if recycling efforts were made, could create problems with the water supply system at PCMS. If non-potable water is to be used, the source must be identified and the impact of diverting water must be assessed. Diversion of rain water, well water or existing surface water would have a negative impact on the soil, wet lands, aquifers and wells in the area. Water rights need to be addressed.	Table 3.2-2 does not include components of the proposed action. Therefore, environmental impacts of any projects or activities listed in the table are not analyzed in this EA except as they relate to cumulative impacts.
The fact that no analysis of the consequences of the proposed helicopter pads or vehicle washing facility is provided in the EA is a major omission. The environmental assessment should be rejected and an environmental impact study initiated based on this failure alone.	Please see the response to comment #105 regarding the level of NEPA analysis.
AIR QUALITY	
The EA states that training activities are subject to a Fugitive Dust Control Plan. I could not find any documentation of this plan. Without an adequate review to insure that the current plan is effective there is no assurance that the plan will mitigate the additional dust caused by the presence of more troops on PCMS.	See above regarding the Installation taking action to post documents on the internet.
One of the proposed additional dust mitigation measures for PCMS	The use of chemical stabilizers on hardened PCMS roads is an existing

is to "*use dust palliatives with longer effective life spans that currently used chemical stabilizers*". The EA does not state what chemicals are currently being used or what other products are being considered. This is a major omission. The use of any chemical substances in a fragile environment such as exists on PCMS and in the surrounding area is a serious issue. The public deserves to be fully informed about all currently used substances and any proposed substances. All chemical use should be fully analyzed for potential negative impact on vegetation, wildlife, livestock, water, and humans in the region.	measure. The Installation uses a commercially-available dust palliative consisting primarily of magnesium chloride and in compliance with its labeled use and Material Safety Data Sheet.
NOISE	
I could not find documentation for the Installation Environmental Noise Management Plan that is stated as a mitigation measure for aircraft noise. The lack of information of how this plan will actually limit noise negates its use as support for a finding of no significant impact from the proposed increase in activity.	See above regarding the Installation taking action to post documents on the internet.
I do not believe the slant distance rules are adequate to maintain a low risk of annoyance from helicopter noise. A distance as close as .3 statute miles is allowed. That is much too close to prevent livestock and wildlife from being terrorized, let alone annoyed. Frightened animals can be injured or even killed as they attempt to flee a threat. Serious injury or death can occur to a rider that is thrown from a frightened horse. The EA does not acknowledge this potential harm or state that the Army will take responsibility for remuneration when the actions of its troops cause such harm.	Please see response to comment #13 regarding minimum slant range distance.
Flying over private land at elevations as low as 50 feet is a violation of property rights and should not be allowed. Flights over private land should not be allowed at elevations of less than 5000 feet.	Please see the response to comment #2 regarding airspace and private property rights.
GEOLOGY AND SOILS	

I could not find any documentation of either the ITAM (Integrated Training Area Management) program or the INRMP (Integrated Natural Resources Management Plan). There has been extensive soil damage in previous training at PCMS as evidenced by photographs taken during an October 2010 tour of PCMS showing tank ruts estimated to be two feet deep. There is no discussion in the EA as to the repair of such damage and plans to prevent it from occurring again. There are no figures provided for the additional vehicle miles that will be driven on the roads and trails at PCMS due to CAB training. Any additional vehicle traffic, especially from heavy vehicles like fuel trucks, will cause increased damage to the land. Without documentation of existing programs and their effectiveness it is not valid to use their existence to support the claim that any impact of increased activity at PCMS is "*mitigable to less than significant*".	See above regarding the Installation taking action to post documents on the internet. This EA does not address the repair of land due to tanks as that type of equipment is not part of the proposed action. As mentioned in Section 2.3.3.5, the majority of travel by CAB vehicles would be on established roads and existing vehicle two tracks. Land damage from CAB vehicles is expected to be negligible.
WATER RESOURCES There is no evidence provided that the current ITAM and INRMP programs are effective or would be adequate for mitigation of the effects of increased activity at PCMS. The Stormwater Management Plan proposed is not explained within the EA.	The Installation implements an Environmental Management System (EMS) per the international standard ISO 14001. An EMS is part of the overall installation management system that specifically addresses the potential risks to the environment from Army activities. EMS is a tool that can help ensure that our Soldiers today — and the Soldiers of the future — have the land, water, and air resources that they need to train; a healthy environment in which to live; and the support of our local communities and the American people. Implementation of an EMS incorporates the cycle of Plan, Do, Check, Act, which is, in essence, adaptive management. For programs like ITAM and management plans such as the INRMP, program managers continuously look to improve the management of our environmental resources, ensuring compliance is maintained and enabling the mission to be accomplished. The EMS is routinely audited for conformance to ISO 14001 by the U.S. Army Environmental Command. Assessment of environmental compliance at Fort Carson and PCMS is also routinely checked by the

	U.S. Army Environmental Command and through oversight of regulatory agencies. The Stormwater Management Plan would describe, in one document, the current management and mitigation measures that are in place at PCMS to promote best management practices and protect water resources from sediment and pollutants. Section 4.12.2.2 has been updated to further describe this plan, whose development has been initiated.
BIOLOGICAL RESOURCES The mitigation measures for the impact to biological resources make reference to the ITAM and INRMP programs that are not document in the EA. Again, without sufficient proof of the effectiveness of these programs it is not valid to use them to claim that there will not be significant impacts to the biology of PCMS and the surrounding area. The proposed use of unidentified dust palliatives and chemical dust suppressants as well as a proposal to increase the use of herbicide and biocontrol agents to control noxious weeds poses a threat to the vegetation, wildlife, livestock, water and human residents of the area. The EA does not address the potential impact of the use of these chemical substances. The proposal to "*Study the impacts of aircraft training on breeding raptor populations and develop mitigation strategies based on results*" is a recommendation that shows a lack of respect and understanding of wild creatures. There are numerous studies already available that detail the negative impact aircraft and other noise sources have on nesting birds. Nesting areas in and around PCMS and any and all aircraft flight routes should be documented immediately and serious measures put in place to keep all aircraft, ground vehicles and personnel a considerable distance away from	After further review in response to this comment, the Army determined additional studies were in fact not necessary. This mitigation measure has been removed and Section 3.3 updated appropriately.

these areas. CULTURAL RESOURCES The mitigation measures for impact to cultural resources refer to existing policies and procedures of the ICRMP and PA but there is no documentation available proving the effectiveness of these policies. The consultations described in section four of the EA are not protection measures. The identification of the thousands of historic items and areas within PCMS has not been completed. There is photographic evidence of damage done to cultural resources in the past. Photographs taken after the 2010 Warhorse Rampage training event document damage to a number of historic items caused by vehicles. One photograph published by the La Junta Tribune-Democrat newspaper shows a fake Afghan village that had been built in the front yard of the historic Minic Ranch house. Such evidence shows a lack of respect and care given to the historic features present on PCMS lands. These historic features are not replaceable. The EA does not provide proof of adequate measures for the protection of the cultural resources on PCMS. SOCIOECONOMICS	Please see above paragraphs regarding the EMS, which applies to cultural resources management as well as natural resources management. During the Warhorse Rampage training event, damage was caused by mechanized maneuver and not by aviation assets, nor aviation support vehicles; therefore, this issue is not relevant to the proposed action. During the Section 106 consultation regarding adverse effects, a report was provided to the Colorado SHPO, and a response received. The archaeological sites affected were in an area for which archaeological surveys had been completed and sites had been recorded. No archaeological data was lost. The Army is taking new, additional measures to exclude training activity with a potential to damage culturally-sensitive areas through improved mapping and marking as a means of protection. Please note that the property referred to as the Minic Ranch house is not an eligible property protected under the NHPA. Per Section 4.8.1.2, 90 percent of PCMS has been surveyed for cultural resources. No mechanized maneuver, wheeled vehicle use, or digging takes place on the unsurveyed portions of PCMS.

The area surrounding PCMS is ranch land. The potential negative impact of increased aircraft activity in the area will have a negative economic impact on the ranchers whose livestock are disturbed. Livestock that are injured, killed or miscarry their young due to the terror inflicted on them by low flying aircraft cost their owners money. Livestock may also be harmed by the use of chemicals on the PCMS. If the ranchers suffer economic hardship business in the local towns, such as La Junta and Trinidad, as well as the city of Pueblo will be negatively impacted. Another economic activity that will be negatively impacted by increased activity is tourism. The amount of history tourism and nature tourism in southeastern Colorado has increased in recent years. Any disruptions of wildlife habitat or environmental damage will diminish the attraction of the area for tourists. The birders and hunters will not come if there are no animals. Santa Fe Trail enthusiasts will not want to look across the view shed of the trail and see helicopters and dust.	Please see the response to comment #119 regarding socioeconomic impacts.
Regarding the human environment, when you live in a rural area where the norm is quiet, where you can sit and listen to nothing but birds, bugs and wind, the invasion of that space by aircraft destroys the human environment.	Use of helicopters is not a newly introduced activity into the landscape.
TRAFFIC Increased convoy traffic will lead to increased road damage, especially from large vehicles like fuel trucks that will be present if a CAB unit is deployed. Road damage is a hazard to all motorists. The highways in this part of Colorado are already in various states of disrepair. Colorado's state budget is under considerable strain and funds to repair additional road damage may not be available. The EA does not address highway damage as an impact of increased activity at PCMS.	The proposed action would have negligible impacts to public roads. Section 2.3.3.5 has been corrected to state that, at most, only 50 CAB wheeled vehicles, not 250, would convoy to PCMS during large, heavy mechanized maneuver events. Per Section 4.10.2.2, convoy traffic for CAB vehicles would follow existing procedures and limitations contained in Fort Carson Regulation 56-7 to reduce traffic and highway impacts.

UTILITIES Regarding the use of potable water on PCMS, there is no evidence that the City of Trinidad was consulted regarding the City's ability to provide additional water to PCMS. Trinidad does not have an unlimited source of potable water. Increased usage by PCMS could cause a strain on the resources of the City. Sizable monetary costs could be incurred by the City if it is forced to add additional capacity to its domestic water system. This should have been addressed in the EA. **Conclusion:** The Fort Carson Combat Aviation Brigade (CAB) Stationing Implementation Draft Environmental Assessment is lacking in substance. It does not properly address a number of potential adverse impacts to the resources and environment of southern Colorado and the Pinon Canyon Maneuver Site. The determination that the anticipated direct, indirect and cumulative impacts of the Proposed CAB training at PCMS is either "less than significant" or "mitigable to less than significant" is not supported by the information provided in the environmental assessment. A full, site specific Environmental Impact Study is necessary.	As noted in Section 2.3.3.5, at most only 350 Soldiers would be training at PCMS during large, heavy mechanized maneuver events. This transient population would constitute only a negligible impact on potable water resources.

ID: 271	**Date:** 2/1/12	**Name:** Paul E. Feenster	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 272	**Date:** 2/1/12	**Name:** Kay Feemster	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 273	**Date:** 2/1/12	**Name:** Richard W. Simmons	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the	

			response to comment #2.	
ID: 274	**Date:** 2/1/12	**Name:** Carl B. Stogsdill	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 275	**Date:** 2/1/12	**Name:** John Geval Smith	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 276	**Date:** 2/2/12	**Name:** Cathy Montoya	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
From a family who lives in southern Colorado, I/we oppose the proposition to expand and take over our land, skies, air, and dollars. Negative funding and expansion.			Thank you for your comment. The proposed action does not include expansion of Army lands nor additional airspace.	
ID: 277	**Date:** 2/2/12	**Name:** Colin Diehl	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
We have been retained by Jerry Wenger and the JE Canyon Ranch, LLC to comment on the above-reference Draft Environmental Assessment ("EA") for implementation of the stationing of the Combat Aviation Brigade ("CAB") at Fort Carson, Colorado. The draft EA and related documents demonstrate that the Army must commission a full environmental impact statement ("EIS") to determine the effects of the proposed federal action on the Pinon Canyon Maneuver Site ("PCMS") and surrounding property. <u>The JE Canyon Ranch</u> The JE Canyon Ranch occupies approximately 50,000 acres in southeaster Colorado in the heart of the Southeast Colorado's Canyonlands country. The Ranch borders the northeast boundary of the Pinon Canyon Maneuver Site and includes a significant section of the Purgatory River canyon. The JE Canyon Ranch is			Thank you for your comment.	

subject to a conservation easement in part because of its unique biological diversity. The Ranch contains some of the highest biodiversity in the State of Colorado. In June of 2010, a team of biologists from across the United States conducted a bioblitz on the JE Canyon Ranch for 24 hours. During that time, the scientists documented a total of 865 species, including 20 mammals, 62 birds, and 18 amphibians and reptiles. The Ranch contains two large herds of bighorn sheep, resident mountain lions, elk, and pronghorn, among other animals. The Ranch is home to fully 25% of all mammal species found in the State of Colorado. In addition, the Ranch contains a significant number of bird species including several species of significant concern. The Ranch is home to nesting peregrine falcons, a species of conservation concern, and the long-billed curlew, a species which has been significantly declining throughout its range. The JE Canyon Ranch has a private airport registered with the Federal Aviation Administration known as JECAN. The airport is regularly used by private aircraft to access the Ranch, conduct aerial surveys, and manage the wildlife and cattle herds. Additionally, the Ranch also often is used by the glider pilots. <u>The Draft EA demonstrates that the Army must conduct an EIS</u> According to the draft EA, the proposed federal action includes training activities at the PCMS. Specifically, the proposed action includes specialized training of CAB units on lands other than Fort Carson or PCMS, "including the regional air space surrounding the PCMS." The EA estimates the average number of required annual flight hours for CAB is estimated at 22,957, or 62 hours per day. As part of the proposed action, the Army is planning to conduct Nap-of-the-Earth flights ("NOE"). These flights will be conducted within the Military Operations Area ("MOA") surrounding the PCMS as well as over the PCMS. NOE flights are conducted at varying airspeeds as close to the earth's surface as vegetation and obstacles permit. It is	Please see the response to comment #2 regarding Route Hawk having been incorrectly labeled as a NOE route in the Draft EA; it is a low-level flight route. The Army does not have any NOE flight routes over private property in southeastern Colorado.

our understanding that NOE flights will occur along the cap rock of the Purgatory River canyon as well as over property owned by the JE Canyon Ranch. Because of the interesting and varied terrain associated with the Purgatory River Canyon owned by JE Canyon Ranch, it is likely that pilots will want to fly NOE flights in the canyons at levels less than 30 feet above the ground. The impact of these flights, combined with the nature of these flights, in the airspace over and near the JE Canyon Ranch requires that the army conduct an EIS for this proposed federal action.	
Pursuant to Army regulations, the proposed action requires an EIS pursuant to 32 C.F.R. 651.41 and 651.42. The proposed action requires an EIS because it includes a significant expansion of a military installation (32 C.F.R. 651.42(a)); because it includes stationing of a brigade (32 C.F.R. 651.42(e)); and because it includes proposed training exercises conducted outside the boundaries of an existing military reservation where significant environmental damage might occur (32 C.F.R. 651.42(f)). In addition, pursuant to 32 C.F.R. 651.41, an EIS is required when the proposed action has the potential to: (a) Significantly affect environmental quality or public health or safety (c) Significantly impact prime and unique farmlands located off post, wetlands, flood plains, coastal zones, or ecologically important areas or other areas of unique or critical environmental sensitivity. (d) Result in significant or uncertain environmental effects, or unique or uncertain environmental risks. (g) Adversely interact with other actions with individually insignificant effects so that cumulatively significant effects result. (i) Be highly controversial from an environmental standpoint.	Please see the response to comment #105 regarding the level of NEPA analysis.
<u>Wildlife Impacts</u> The significant increase in aerial activity combined with the use of	

NOE flights creates significant negative environmental impacts to the JE Canyon Ranch, an area of unique environmental sensitivity. As indicated above, the Ranch contains unique biological diversity for this part of Colorado. JE Canyon Ranch personnel have seen firsthand wildlife such as the bighorn sheep population bothered by existing aerial maneuvers. The addition of more frequent flights, and NOE operations requires a detailed study of how such flights will impact the resident bighorn sheep herds and other big game populations.	
Public Safety	
Pursuant to 32 C.F.R. 651.41(a), an EIS is needed where the action will significantly affect environmental quality or public health and safety. As indicated above, the JE Canyon Ranch includes an operating airport with frequent inbound and outbound flights. The draft EA makes no mention of the affect of the proposed NOE flights on this operating airport and on the safe use of the JE Canyon Airport. Due to the significant safety concerns associated with these military maneuvers, the Army should conduct an EIS to study these impacts. The expansion of military operations in the MOA has the potential to significantly affect the safety of members of the public who use glider aircraft on the JE Canyon Ranch.	Please see the response to comment #2 about the fact that the proposed action would not result in a request to the FAA for any additions to or modifications of current FAA airspace designations on or near Fort Carson or PCMS.
Similarly, the JE Canyon Ranch is an active ranching operation in which Ranch Employees are often in close proximity with livestock during branding and shipping and receiving, and in which Ranch employees use heavy machinery outdoors on a regular basis. The Army has not studied the impact of NOE flights on equipment operators who may be using heavy machinery outside while such NOE flights occur, or any safety impact of spooking herds of cattle while in close proximity to Ranch employees. The safety of those personnel could be jeopardized by such NOE maneuvers.	Please see the response to comment #2 regarding safety as a component of CAB operations.
Impacts off the PCMS	

Pursuant to 32 C.F.R. 651.43(f), an EIS is normally required where the Army will conduct training exercises outside the boundaries of an existing military reservation where significant environmental damage might occur. In this instance, the Army is proposing to conduct NOE flights both within and outside of the boundaries of the PCMS. These flights will significantly impact the JE Canyon Ranch and the wildlife and livestock that reside there. Due to the environmental significance of the wildlife that inhabits the JE Canyon Ranch, this impact should be studied in an environmental impact statement. This wildlife, particularly the resident big horn sheep herds, will be impacted by the increased use of the airspace for NOE flights.

Improper Segmentation

The Draft EA states that training of CAB units would occur on lands other than Fort Carson and PCMS and that appropriate NEPA analysis, documentation and review would be conducted at some point in the future. The Army should consider the impact of that off-site training in connection with this federal action and should not segment that NEPA review to some future NEPA analysis. The Army is aware now that it intends to train CAB units, including NOE flights, over lands not owned by the Army. The impact of those operations should be included in this analysis and require a full EIS.

High Controversy

The proposed federal action also requires an EIS because it is highly controversial from an environmental standpoint. The Army is well aware of the ongoing controversy surrounding its use of the PCMS. That controversy is well-documented. This proposed action future adds to that controversy. Public comment and public hearings associated with the Army's operations on the PCMS demonstrate how controversial these activities. The Army has already been

subject to at least one federal lawsuit concerning its proposed activities on PCMS. Its actions regularly draw significant public concern and outcry. The fact that this proposed action is controversial is enough, in and of itself, to mandate that the Army conduct and EIS. <u>Conclusion</u> The JE Canyon Ranch is a unique and special place that some have characterized as containing "National Park quality landscape. It is home to an astounding array of biological diversity that will be impacted by the proposed increased Army operations in the surrounding area. As a result, the JE Canyon ranch respectfully requests that the Army conduct a complete EIS to make sure that this precious environmental resource is protected. Thank you in advance for your consideration.				
ID: 278	**Date:** 2/2/12	**Name:** Ryan Schnaufer	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 279	**Date:** 2/2/12	**Name:** Mike Schnaufer	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
See comment #2.			Thank you for making us aware of your concerns. Please see the response to comment #2.	
ID: 280	**Date:** 2/3/12	**Name:** National Park Service National Trails Intermountain Region, National Park Service	**Method:** Letter	**Other Notes:** N/A
Comment			**Response**	
The National Park Service National Trails Intermountain Region (NTIR) office has reviewed the 2012 Draft Environmental Assessment (EA) titled "Fort Carson Combat Aviation Brigade Stationing Implementation". The Santa Fe National Historic Trail (NHT), one of the NHTs that our office administers, is very likely to			Thank you for your comment. The Army believes that use of existing routes and airspace traditionally used by helicopters between Fort Carson and PCMS have never had an adverse effect on historic sites; therefore continued use would not have	

be adversely affected by the proposed flights. The Area of Potential Effects (APE) that the Army has defined only encompasses the boundaries of Fort Carson and the Pinon Canyon Maneuver Site (PCMS). The APE should include the geographic area within which an undertaking may directly or indirectly affect the character or use of historic properties along the flight routes. It is recommended that the APE be expanded to include the geographic flight area between the two military installations where effects such as noise, vibrations, and visual impacts that could result from the undertaking be appropriately considered. Even though these are not earth-disturbing activities, low-altitude military overflights of National Historic Trails (NHTs) have the potential to adversely affect NHT settings. The trail setting, or cultural landscape, extends above the ground into the sky, as well as across the landscape to the horizon from our trails in these sparsely populated and undeveloped areas. Effects of the low altitude flights may be irregular and of short-duration, but could occur frequently and repeatedly. The effects of the flights can be visual, auditory, and vibratory. Artificial illumination of currently very dark night skies from the helicopter's lights and engines, vibrations, noise, and the startling of animals, game, and humans will degrade the visitor experience of the trail setting adversely. In addition, vibrations from helicopter low-altitude flights could have severe and adverse effects on trail-related resources, such as buildings. The segment of the Santa Fe Trail from Timpas to Tyrone represents the longest undeveloped section of the Trail. The historic views and quiet atmospheric conditions of this segment are critical to experiencing the trail and its historic integrity. This segment of the Trail lies underneath the helicopter path between Fort Carson to the PCMS. There are significant National Register eligible trail segments and historic sites in this area. Two are considered "high potential historic sites" meeting the criteria in the	an adverse effect despite the proposed increase in number of helicopters. Use of helicopters is not a newly introduced activity into the landscape and that, as discussed in Section 4.8, training impacts associated with CAB stationing would be further evaluated under the NHPA process. Consultation with the COSHPO on CAB training is ongoing. The National Park Service has demonstrated it is an interested party in the ongoing Section 106 consultation for CAB training activities. The Installation would continue to consult with the National Park Service on the effects of CAB training as it relates to the Santa Fe Trail. NHPA consultation will assess and mitigate any adverse effects to cultural resources. As stated in the CAB EA, the only completed NHPA consultation associated with CAB stationing at the time that this document was completed focused on construction at Fort Carson. Training impacts will continue to be assessed on a case-by-case basis in accordance with NHPA at Fort Carson and PCMS. Section 4.8.2.2 has been revised to clarify this responsibility. Aircraft crossing the Santa Fe Trail would generally be at 500 feet altitude, with the exception of flights that ingress and egress PCMS after flying Route Hawk. The Installation is committed to using or adjusting Route Hawk so that impact on the Santa Fe trail is appropriately minimized. In many locations, the trail is near rail traffic and a major highway with truck and vehicle traffic. Route Hawk is re-evaluated annually to determine if any adjustments are needed. Between 2006 and 2011, no adjustments were made; however, per Section 4.4.2.2.4, the Installation has initiated actions to formally remove the H7 to H8 segment of the route as a result of comments received on the Draft EA. Fort Carson will consider other requests for adjustments in their annual re-evaluation.

National Trails System Act of 1968. Segments and sites along portions of the proposed flight path "afford high quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the original users of a historic route." NTIR requests that the Army consider prohibiting low-altitude overflights within five miles of the NHT corridors. Even this will not entirely eliminate effects from overflights in the surrounding area, but it will reduce the likelihood of severe adverse effects on the trail, trail-associated resources, and trail settings. This office can provide maps and GIS data showing where the known trail corridors lie. In addition, a major investigation of Santa Fe Trail related cultural resources will be taking place this spring and summer through funding and support from this office, the Colorado Historical Fund, and the United States Forest Service. The project is in partnership with many entities including the National Trust for Historic Preservation, Santa Fe Trail Association, Scenic ByWays, U.S. Army Corps of Engineers, and Las Animas and Otero counties. Information from this work can help inform the U.S. Army as to the extent and nature of Santa Fe Trail related cultural properties within the recommended expanded APE. Thank you for considering our comments. Please contact Michael Elliott of NTIR for further information, or if you have any questions, at 505-988-6092 or michael_elliott@nps.gov.	

ID: 281	**Date:** 2/1/12	**Name:** Stephen Harris, Alpern Myers Stuart LLC on behalf of Not 1 More Acre!	**Method:** Email	**Other Notes:** N/A

Comment	**Response**
See next page for start of comment letter. The full comments are contained on pages C-195 through C-317. Copies of the exhibits provided with the letter are not included within this Appendix.	See pages C-318 – 329 for response.

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

Howard J. Alpern
Kenneth P. Myers
Dan D. Stuart
Lisa Tormoen Hickey
Matthew J. Werner
Virjinia V. Koultchitzka
John L. Cyboron

14 NORTH SIERRA MADRE STREET, SUITE A
COLORADO SPRINGS, COLORADO 80903-3311

TELEPHONE (719) 471-7955 x138
FACSIMILE (719) 630-1794
E-MAIL steve@coloradolawyers.net

Of Counsel
M. Allen Ziegler, Jr.
Stephen D. Harris
Senior Associate
Peggy A. Hayes
Associate
Andrew J. McVay

February 1, 2012

Public Comments
U.S. Army Environmental Command
Attn: IMPA – AE (Kropp)
2450 Connell Road (Building 2264)
Fort Sam Houston, Texas 78234-7664
By email attachment to: USARMY.JBSA.AEC.MBX@mail.mil

VIA FEDEX

Re: Comments on the Draft Environmental Assessment
Fort Carson Combat Aviation Brigade Stationing Implementation

To Whom It May Concern:

On behalf of Not 1 More Acre! ("N1MA!"), P.O. Box 773,Trinidad, Colorado 81082, Jean Aguerre, and Jim Herrell, I submit these comments on the Department of Army's Environmental Assessment ("EA") for Fort Carson Combat Aviation Brigade ("CAB") Stationing Implementation ("Draft CAB EA") issued in January 2012. N1MA! is a non-profit organization dedicated to protecting and preserving the natural and cultural heritage, economy, and quality of life in southern Colorado and northern New Mexico, as are the individuals submitting these comments.

I. Introduction

Despite Army claims to the contrary, the environmental impacts that will be caused by training a new Heavy CAB consisting of 2,700 soldiers, 113 attack helicopters, 600-700 wheeled vehicles, unmanned ground vehicles, and armed and surveillance unmanned aerial systems at the Piñon Canyon Maneuver Site ("PCMS") will undoubtedly be significant. The PCMS lands include undisturbed, pristine natural areas with important ecological, archaeological, historical and socioeconomic values that must be protected. By itself, the training of 113 helicopters at the PCMS will create noise, disturb wildlife, damage vegetation and adversely impact soils and water resources that are increasingly stressed due to the effects of climate change. As discussed in greater detail below, demand for training time will cause severe impacts to the land, disrupt scarce water resources, and increase emissions of hazardous air pollutants as well as the greenhouse gases that are causing climate change. Involving more vehicles and personnel in mechanized maneuver training over larger areas at the PCMS will produce more irreparable harm to the last intact shortgrass prairie in the American Great Plains.

Moreover, the Army is proposing to engage in training with new methods and equipment that have never been legally authorized at the PCMS – air-ground integration training that links ground forces and aviation assets with Unmanned Ground Vehicles ("UGV") and Unmanned Aerial Systems ("UAS"). The Draft CAB EA fails to provide an honest assessment of the potential risks of these advanced integrated technologies that present a host of serious airspace safety, environmental, and privacy concerns. Indeed, the Draft CAB EA and its predecessors – the Programmatic CAB Environmental Impact Statement ("EIS") ("CAB PEIS"), the Fort Carson Grow the Army EIS ("Fort Carson GTA EIS"), and the PCMS Transformation EIS – contain no public disclosure or environmental analysis of key variables related to these major and impactful transformation programs: (a) the frequency of proposed training exercises using UGV and UAS; (b) the duration of proposed training exercises using UGV and UAS; (c) the specific types of UGV and UAS that will be used; or (d) the numbers of UGV and UAS that will be employed in training at one time. There is certainly no indication that twelve or more Gray Eagles – large, armed experimental UAS aircraft – will be used at the PCMS, or that an Army Apache helicopter pilot recently controlled a Gray Eagle drone remotely while both aircraft were in flight. The Army's aviation program is rapidly proliferating. This letter demonstrates that Fort Carson and the U.S. Army Installation Management Command ("IMCOM") have failed to produce and disclose information about potential risks as required by the National Environmental Policy Act ("NEPA").

There are four primary units presently assigned to the 4th Infantry Division at Fort Carson – three Heavy Brigade Combat Teams ("HBCT"),[1] which is different from a Combat Aviation Brigade, and one Infantry BCT ("IBCT"). Typically an HBCT consists of roughly 5,000 soldiers, 360 tracked vehicles, 900 wheeled vehicles and four Tactical Unmanned Aerial Systems ("TUAS").[2] The IBCT consists of roughly 5,000 soldiers with two tracked vehicles, 930 wheeled vehicles and four TUAS. Considering these four units alone, it thus appears that there are currently a total of 20,000 soldiers, 1,082 tracked vehicles, 3,630 wheeled vehicles and sixteen TUAS assigned to Fort Carson that the Army plans to send to the PCMS for training maneuvers, compared with the 14,500 soldiers, 650 tracked vehicles and 1,800 wheeled vehicles reportedly assigned to the base in 2006. Other forces stationed at Fort Carson that illegally use the PCMS for training include the 43rd Sustainment Brigade and the 10th Special Forces Group and related units – another 4,000 to 5,000 soldiers – along with various and sundry Reserve,

---

[1] The equipment and personnel associated with an HBCT are described in Exhibit 124 attached hereto.

[2] Tracked vehicles, such as tanks, use rotating tracks for mobilization, whereas wheeled vehicles use rubberized tires on wheels for travel. However, wheeled vehicles are not like consumer trucks.- the category includes the Heavy Expanded Mobility Tactical Truck, which can weight 40,000 to 50,000 pounds, and the nineteen-ton armored and armed Stryker combat vehicles, which travel just six miles on one gallon of gasoline. See, Exhibit 117.

National Guard, and U.S. Air Force troops and other federal, state and local law enforcement personnel.

If the Heavy CAB is stationed as planned, Fort Carson's total base inventory will increase to nearly 30,000 soldiers, 1,082 tracked vehicles, and 4,300 wheeled vehicles. The Heavy CAB will also be equipped with at least twelve of the Army's brand new MQ-1C Gray Eagle UAS.[3] Formerly called the Extended-Range Multi-Purpose ("ER/MP") UAS, the Gray Eagle is an upgrade of the MQ-1 Predator UAS with a more powerful engine and larger payload. Each Gray Eagle weighs about 3,600 pounds and can carry up to four Hellfire missiles. As of June 2011, the Congressional Budget Office ("CBO") reported that the Army's existing medium-sized UAS inventory included forty (40) MQ-1 Predators in two versions (specifically, MQ-1 Warrior Alphas and MQ-1C Gray Eagles). The CBO also reported that over the next five years the Army plans to purchase 107 more Gray Eagles at a cost of about $4 billion. At recent public meetings the Army indicated that the Gray Eagles are expected to arrive at Fort Carson within two years.

The Heavy CAB that is proposed in the Draft CAB EA includes two attack reconnaissance battalions, an assault helicopter battalion, a general support aviation battalion, and an aviation support battalion. The attack reconnaissance battalions consist of 48 AH-64 Apache helicopters. The Apache is armed with a 30-millimeter chain gun, and it can carry up to 16 laser-guided Hellfire missiles and 76 rockets (in pods of 19 rockets each).[4] The Army is currently in the process of upgrading all older AH-64A helicopters to the new AH-64D Longbow Apache model. The AH-64D can employ radar-guided Longbow Hellfire missiles and Longbow fire control radar ("FCR"). A single FCR-equipped Longbow Apache is reportedly able to control Longbow Hellfire missiles carried by AH-64D aircraft that are not equipped with radar sensors. In addition, the Army is pursuing plans to upgrade the AH-64D to the AH-64 Longbow Block III or AB3 configuration. At the end of 2011 the Army reported that an Apache Longbow Block III helicopter pilot had controlled the payload and flight path of a Gary Eagle UAS while

---

[3] The Gray Eagle UAS is also sometimes referred to as the "Grey Eagle UAS" in the official literature. An industry briefing by the U.S. Army Corps of Engineers indicates that the ER/MP aircraft will be assigned to the Heavy CAB at Fort Carson. Exhibit 131 at 19 (or page 10 of 30); see also Exhibit 132.

[4] Technical information regarding the CAB helicopters is derived from the Congressional Budget Office ("CBO") report "Modernizing the Army's Rotary-Wing Aviation Fleet" (Nov. 2007), which is attached hereto as Exhibit 119. Also attached as Exhibit 135 is a CBO Analysis of U.S. Army Helicopter Programs from December 1995 for comparative purposes.

both aircraft were airborne. The Apache Longbow III is reportedly the only aircraft that currently possesses such capabilities.[5]

The assault battalion will consist of approximately 30 UH-60 Blackhawk helicopters, which are the Army's second-largest helicopter at more than 20,000 pounds Maximum Take Off Gross Weight ("MTOGW").[6] The general support battalion will consist of 12 CH-47 Chinook helicopters (the largest aircraft in the Army's aviation fleet at 50,000 lbs MTOGW), five specialized Blackhawk helicopters, and 12 Medevac helicopters. The Army is currently in the process of upgrading all CH-47D helicopters to the newer CH-47F model.

According to the Draft CAB EA, the 113 helicopters assigned to the Heavy CAB will fly somewhere between an average of 14,880 and 22,957 hours per year, of which approximately one-third would occur at the PCMS (between 4,960 and 7,652 hours). However, the Draft CAB EA also discloses that in the second year of operation, for instance, compliance with the Full Spectrum Operations Training Strategy would result in 25,618 hours of flying time (or 8,539 hours at PCMS). Nearly one-half of all flying hours are expected to be flown by the AH-64 Apache attack aircraft. Although the Army states that actual flight time will probably be closer to the lower figures, the fact remains that the Proposed Action will authorize aviation use at a level that is at least four times greater than the only reported past use.[7] In addition, the Draft CAB EA failed to disclose or analyze any information related to flight frequency or impacts that could be caused by the Gray Eagle UAS and other integrated unmanned systems that are components of the Heavy CAB. Finally, the Army reported during recent public meetings that the Proposed Action now includes seven concrete landing strips at PCMS, the impacts of which have never been disclosed or analyzed previously.[8] Indeed, the Draft CAB EA states that there

---

[5] The Apache Longbow Block III program has been plagued by cost overruns leading Congress to identify it as one of :seven programs with critical or significant Nunn-McCurdy unit cost breaches to their current or original Acquisition Program Baseline" for the reporting period ending December 2009. Exhibit125 at 3. According to the Selected Acquisition Report, the Program Acquisition Unit Cost for the Apache Longbow Block III increased by 25.5% while the Average Procurement Unit Cost increased by 31.2% due to a procurement quantity increase of 56 aircraft (from 634 to 690) that are being added to stand up a new Combat Aviation Brigade. *Id.*

[6] MTOGW represents the weight of the helicopter along with all payload and personnel aboard it.

[7] For purposes of this calculation, the Army's original 1980 estimate of 774 hours of helicopter flight time per brigade training exercise was multiplied by 2.5, reflecting the Army's report of no more than 2-3 brigade exercises per year.

[8] Since 2007 construction at PCMS has been prohibited by Military Construction, Veterans Affairs and Related Agencies FY 2012 Appropriations Act, Section 128: "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 Pinon Canyon Maneuver Site, Colorado."

will be no construction at PCMS. It is clear that authorizing the CAB will open the back door to many more undisclosed improvements that will receive no environmental review or public disclosure in violation of NEPA.

The Draft CAB EA insists that all impacts from the Proposed Action are "less than significant," or "mitigable to less than significant," because the Army's environmental policies and programs will prevent or ameliorate any significant impacts. This reasoning, which has been repeated by the Army in study after study designed to justify an increase in training at the PCMS during the past six years, and rejected by the United States District Court for the District of Colorado ("District Court"), is flawed for a host of reasons that expose fundamental problems with the Army's environmental stewardship and management programs. The core purposes of NEPA are to ensure public disclosure and transparency and promote environmentally sound decisions by requiring that the public and agency officials are reasonably informed about the potential impacts of different courses of action. Denying that severe impacts will result from military training use of the PCMS is arbitrary and capricious and conflicts with the ecological principles and sunshine requirements embodied in NEPA.

Although Army regulations and guidance documents pay lip service to the principles of stewardship, the Army's clear record of actions during the past five years demonstrates that Fort Carson has not "walked the talk." The base continues to betray its environmental and cultural management responsibilities and cannot be trusted to prevent significant environmental harms. The following examples amply show how the Army has acted incompatibly with the environmental principles espoused in its regulations, studies and guidance documents:

* Since 2006 the Army has released a series of flawed self-referential NEPA analyses purporting to analyze the impacts of increases in training over historical levels, none of which have successfully authorized any changes in PCMS management to date. All told the Army has produced 6,402 pages of NEPA documentation during the past five years and in every case Fort Carson has concluded that its planned actions will not cause significant impacts to the quality of the human environment. Despite the fact that no valid decision authorizing changes in training at PCMS has been issued, Fort Carson has illegally proceeded to expand the intensity and tempo of its training at the PCMS.

* The Sikes Act and Army regulations require Fort Carson to prepare both an Integrated Natural Resources Management Plan ("INRMP") and an Integrated Cultural Resources Management Plan ("ICRMP") every five years to ensure protection of environmental and cultural resources. Fort Carson's current ICRMP was apparently authorized in 2002, with a stated effective date range of 2002-2006, and is therefore dangerously out of date. The current INRMP was issued in 2007 with a stated effective date range of 2007-2011 and has therefore expired as well.

* After 2002 the Army stopped preparing After Action Reports ("AARs") to document environmental damage following training exercises – a requirement of its own regulations and INRMP. Although the Fort Carson Cultural Resource Management Program prepared an AAR documenting impacts to cultural resources caused by the Army's disastrous Warhorse Rampage exercise in 2010, it is currently the only AAR from the past decade that Fort Carson has publicly disclosed.

* In the past the Army has conducted an annual Land Condition Trend Analysis ("LCTA") that involves monitoring plots of land and evaluating environmental damage caused by training exercises. LCTA data collected during the 1990s was reported in a U.S. Geological Survey ("USGS") report published in 2008. It is unclear why all LCTA data has not been made available to the public – the LCTA was not mentioned in the Fort Carson GTA EIS, the CAB PEIS, or the Draft CAB EA. Instead, the Army relied on a scientifically dubious Maneuver Impact Miles ("MIMs") analysis in the Fort Carson GTA EIS that is designed to mislead the public about the significance of potential impacts. The Army has never disclosed how the MIMs result was derived or what assumptions and variables were taken into account in the calculation. Moreover, the model used as its baseline the increased training levels that were authorized by the PCMS Transformation EIS, which has since been vacated by the District Court.

* The 2007 INRMP refers to numerous agency partnerships and mitigation programs that no longer exist. Pursuant to the Sikes Act, the Army is required to consult and cooperate with other federal and state agencies that have stewardship responsibilities with respect to lands and wildlife. The 2007 INRMP assigns these responsibilities to Fort Carson and to other partner agencies including the U.S. Fish & Wildlife Service ("USFWS"). For many years, the Fort Carson Directorate of Environmental Compliance & Management ("DECAM") secured funding for USFWS personnel who were hired for the purpose of environmental stewardship of PCMS. In 2010, the Army terminated its agreement with USFWS in a move designed reduce the budget allocation for environmental management. Between 2009 and 2010 federal reports show that the annual Department of Defense ("DOD") budget for environmental management services provided by the USFWS fell from nearly $2 million to zero.

* In 2007, the Army eliminated DECAM, which was charged with implementing oversight of environmental policies and programs and NEPA compliance. The 2007 INRMP explains in detail the importance of DECAM to the agency's environmental stewardship efforts, yet there is no evidence that this function is currently being implemented by other Army staff. The actual dismantling began in 2005 when the Army Installation Management Command ("IMCOM")

published a Standard Garrison Organization Directive that transferred environmental management responsibilities to the Department of Public Works. Between 2005 and 2007 Fort Carson environmental managers provided justification for an exception to the Standard Garrison Organization Directive based on the unique mission capabilities/requirements and support structure of DECAM. Those efforts, however, while then supported locally, were not accepted by IMCOM. DECAM officially ceased to exist by order of former Garrison Commander Eugene Smith during November 2007.

* The 2007 INRMP opened an additional 15,505 acres of the PCMS to mechanized tank training. Currently 185,000 acres – or nearly 80% of the entire property - is available for the most destructive training activities, while less than 5% of the PCMS is off limits to training entirely. More land is now open to mechanized maneuvers than at any point in the past. When the PCMS was originally acquired, the 1980 EIS concluded that no more than 131,064 acres should be open to mechanized training in a given year even under the "Increased Use Scenario."

* The Fort Carson budget for environmental management programs has been slashed during the past few years. The 2007 INRMP indicates that the Army would need to provide at least $32,730,000 for environmental programs between 2007 and 2011 in order to meet its environmental objectives. Although N1MA! does not have access to internal Pentagon budget documents, it is believed that the government's five-year Program Objective Memorandum/Budget Formulation planning documents support this position. Concurrently, N1MA! understands that the number of Army staff currently assigned to environmental oversight and management responsibilities has been sharply reduced. The 2007 INRMP indicates that no fewer than 27 permanent full-time employees are required for its implementation.

* In 2009, the District Court vacated the PCMS Transformation EIS, which was intended by the Army as a replacement for the original 1980 EIS for Training Land Acquisition. The Court held that the PCMS Transformation EIS "does not adequately assess the impact on the environment of the increase in the intensity and duration of training operations necessary to meet the Army's stated purposes for its action." The Army's flawed analysis has since been used as the foundation for subsequent environmental analyses contained in NEPA studies including the Fort Carson GTA EIS, the CAB PEIS, and the Draft CAB EA considered here. In January 2011 Fort Carson issued a "PCMS Transformation EA" that disputed the District Court's findings, without undertaking additional analysis, but to date the Army has failed to issue any formal decision to complete that process. Nonetheless, the Army continues to illegally conduct Transformation training, construction and management activities at the PCMS in violation of NEPA.

* The Army has spent more than a decade planning to expand the PCMS through additional training and land acquisition. Every study that was produced insists that the PCMS in its current size cannot both meet mission requirements and sustain the environment. By contrast, the Army's public environmental analyses have all indicated that use of the existing PCMS will be able to satisfy all mission and environmental requirements without causing any significant impacts. These later statements, which are completely at odds with the Army's internal positions, are false. Thirty years of experience has demonstrated that Fort Carson cannot meet its maneuver training requirements at the PCMS without causing irreversible degradation and total destruction to the resource.

* The PCMS Transformation EIS identified a number of construction projects for the PCMS. After the District Court vacated the PCMS Transformation ROD, the Army secretly removed the construction projects from the PCMS Transformation Proposed Action so that segmented pieces of construction could be implemented with no environmental review under NEPA and in violation of a Congressional funding ban prohibiting spending on any aspect of expansion at PCMS.

* The decision to station a CAB at Fort Carson was made long before the environmental review process commenced. NEPA is not designed to be an after-the-fact rationalization of agency decisions already made. The irregular process that the Army has followed in completing its environment review has rendered its results superfluous and irrelevant to the decisionmakers.

In summary, the Army has completely and consistently failed to meet the minimum obligations under NEPA and the Sikes Act for more than five years now. During that time the Army has issued a series of no fewer than sixteen NEPA reports that purport to study the relationship between military training and environmental impacts at the PCMS:

Oct 2006	Draft PCMS Transformation EIS (390 pages) (vacated) (Exhibit 1)
June 2007	Final PCMS Transformation EIS (901 pages) (vacated) (Exhibit 2)
Aug 2007	Draft Programmatic Grow the Army EIS (597 pages) (Ft Carson IBCT proposal withdrawn) (Exhibit 3)
Sept 2, 2007	PCMS Transformation Record of Decision ("ROD") (9 pages) (vacated) (Exhibit 4)
Oct 2007	Final Programmatic Grow the Army EIS (730 pages) (Ft Carson IBCT proposal withdrawn) (Exhibit 5)
Dec 19, 2007	Programmatic Grow the Army ROD (45 pages) (Ft Carson IBCT proposal withdrawn) (Exhibit 6)

Oct 2008	Draft Fort Carson Grow the Army EIS (914 pages) (Ft Carson IBCT proposal withdrawn) (Exhibit 7)
Feb 2009	Final Fort Carson Grow the Army EIS (1414 pages) (Ft Carson IBCT proposal withdrawn) (Exhibit 8)
March 2009	Fort Carson Grow the Army ROD (23 pages) (Ft Carson IBCT proposal withdrawn) (Exhibit 9)
May 2010	Programmatic Grow the Army ROD Update (31 pages) (withdrawing Ft Carson IBCT proposal) (Exhibit 10)
Nov 2010	Draft Programmatic Combat Aviation Brigade EIS (441 pages) (Exhibit 11)
Jan 2011	Draft PCMS Transformation EA (47 pages) (no decision) (Exhibit 12)
Jan 2011	Draft PCMS Transformation FONSI (4 pages) (no decision) (Exhibit 13)
Feb 2011	Final Programmatic Combat Aviation Brigade EIS (623 pages) (Exhibit 14)
March 2011	Programmatic Combat Aviation Brigade ROD (39 pages) (Exhibit 15)
Jan 2012	Draft Fort Carson Combat Aviation Brigade EA (194 pages) (Exhibit 16)

Over the last five years the Army has issued a staggering 6,402 pages of NEPA documentation. Each of the studies identified above – all of which conveniently find that the Army's actions will have no significant impacts to the quality of the human environment - is expressly based upon, tiered to and/or incorporates by reference the PCMS Transformation EIS, which was vacated after the District Court found its environmental analysis to be arbitrary and capricious.

Fort Carson's environmental management program has become a directionless bureaucracy – producing thousands of pages of meaningless analysis at a huge cost to taxpayers while forsaking management and stewardship activities that could have yielded measurable benefits. There is no longer any coordinated monitoring or mitigation of environmental impacts at the PCMS. The Army's activities are characterized by an utter lack of public disclosure and transparency. The analysis methodology used by the Army to predict potential environmental impacts is not based on sound scientific principles. The environmental strategy employed by the Army appears designed to trick the public into believing that impacts will be insignificant and wear opponents down with relentless and endless public comment opportunities that consume unreasonable amounts of time and money. Even as military training at the PCMS intensifies, environmental protections are being relaxed. Fort Carson simply does not treat environmental protection as a priority and Army leaders have not been accountable to the public.

For these reasons, along with the supporting information included below and in the digital exhibits that accompany this letter on a disk submitted herewith, the Army cannot legally issue a Finding of No Significant Impact ("FONSI") based upon the Draft CAB EA. Indeed, Fort Carson is not legally entitled to use the PCMS for any training purposes because the force structure and weapons systems in place today are fundamentally different and more harmful than those that were contemplated in the original 1980 EIS for Training Land Acquisition. Today we know much more about the natural environment and cultural heritage associated with the last intact shortgrass prairie in the United States than was known in 1980, and no valid environmental study under NEPA has analyzed the potential impacts of the use of these new force structures and systems at the PCMS in light of this new information.

II. History of Military Training at the PCMS

In order to appreciate the deep flaws of the Draft CAB EA, it is necessary to understand the thirty-year history of military training at the PCMS. When the PCMS was originally acquired by the Army back in the 1980s, the government gave consideration to the type of training that would be permitted at the site in the Environmental Impact Statement for Training Land Acquisition ("1980 EIS").[9] Exhibit 17. At that time, Fort Carson was home to the 4th Mechanized Infantry Division, which consisted of three brigades, each made up of two battalions. Exhibit 18 at A-1. In the 1980 EIS the Army analyzed two alternative locations for a training area, including the PCMS and a parcel along the Huerfano River. First, based on knowledge of the time, the Army determined the ecological carrying capacity for each of the properties. According to the 1980 EIS:

> Carrying capacities are practical bases for estimating the intensity of military training operations that can be imposed on a land area. The intensity of use, if within the carrying capacity, would reduce the risk of irreversible damage to soils and vegetation. The use of carrying capacity is combined with control of time of use, frequency of use, and the application of enhancement practices to protect the soil and vegetation resources of the parcel and to form the basis of the land use and management planning presented here.

Exhibit 17 at 2-13. For each property, the Army then evaluated three potential training intensities: (1) an Increased Use Scenario, with use projected at 15% greater than carrying capacity; (2) an Increased Protection Scenario, which emphasized protecting the resource; and (3) a Balanced Use/Protection Scenario, with use projected at a level equal to carrying capacity. *Id.* at 2-9 to 2-14. The environmental analysis took into account variables such as numbers of troops, annual vehicle days, frequency of use, type of weapons systems, and duration of training rotations. *Id.*

---

[9] To date N1MA! has not been able to locate any Record of Decision based on the 1980 EIS. The Final EIS for Training Land Acquisition is attached hereto as Exhibit 122.

Ultimately, the Army approved the Increased Use Scenario, which was "designed to maximize military use while allowing some resource protection." *Id.* at 2-10. The 1980 EIS divided the PCMS up into five management units and then declared that only three out of the five units could be used at one time. *Id.* at 2-28 to 2-32. Rest and recovery were essential components of the proposed Land Use Management Plan ("LUMP") identified in the 1980 EIS; even under the Increased Use Scenario each unit could be used for training for only three consecutive years, to be followed by at least two years of rest. *Id.* In any given year, the 1980 EIS assumed that anywhere between 107,540 and 131,064 acres of the property would be available for training at an intensity identified at between 44,684 and 50,207 vehicle days.[10] *Id.* at 2-39 (Table 2.9). According to the 1980 EIS, this level of use would permit between 4.2 and 4.7 brigade training periods per year, which has been generally interpreted as 4.4 months of training. *Id.* at 2-43 (Table 2.11). Brigade exercises were designed to last roughly 20 days in the field, with ten days reserved for administrative matters. *Id.* at 1-6. Each brigade exercise was projected to involve 5,085 Soldiers, 16,520 wheeled vehicle days and 8,640 tracked vehicle days on 82,531 acres of land. *Id.* at 1-6 to 1-7 & Exhibit 18 at A-2. The 1980 EIS states that no more than 507 vehicles at one time would be engaged in training at the PCMS, and that no brigade sized exercises would be staged at the property (although two battalions could train at one time with a third battalion not in the field). *Id.* The 1980 EIS estimated helicopter use at 774 hours per brigade training period. *Id.* at 1-7.

The EIS also recommended various mitigation measures that were designed to ameliorate impacts. *Id.* at 2-30 (Table 2-7). No live fire exercises were permitted anywhere on the property. *Id.* at 1-8. Environmental managers were empowered to suspend mechanized maneuvers at certain soil moisture thresholds – the so-called "wet weather deferment." *Id.* at 2-30 (Table 2-7). Training exercises were also curtailed during the growing season from April 1 – June 1 annually, identified in the 1980 EIS as the "absolute minimum period required to afford any significant vegetative protection." *Id.* at 2-38. The LUMP also provided a holiday deferment period from December 15 – January 15 when all exercises would be prohibited. *Id.* at 2-32. The 1980 EIS identified five soil protection areas at the PCMS where vehicle use would be restricted, along with wildlife protection areas in the canyons. *Id.* at 2-34.

Significantly, the 1980 EIS was not intended to authorize the Increased Use Scenario levels of use for all time; indeed, the EIS specifically states that "training intensity and use will be reviewed annually to determine the optimum level of adequate land recovery from impacts." *Id.* at 2-13. The 1980 EIS proposed an elaborate system of monitoring networks for air quality, water quality, and sound levels to be implemented in collaboration with other federal and state agencies and soil conservation districts, including the USFWS, the USGS and the Colorado Division of Wildlife. *Id.* at 2-13 to 2-16. Vegetation surveys, water monitoring and other land

---

[10] For purposes of the 1980 EIS, a vehicle day was considered to be two hours of use for tracked vehicles and four hours of use for wheeled vehicles.

enhancement and protection projects were identified in order to mitigate the expected significant impacts related to military training. *Id.*

Fort Carson conducted its first training exercises at the PCMS beginning on July 29, 1985. Exhibit 19 at 5. Six major training exercises were reported from July 1985 through November 1987 and each consisted of two weeks of onsite maneuvers per exercise, involving approximately 3,200 personnel and 1,160 vehicles, including about 450 tracked vehicles. *Id.* From 1985 to 2002 the Army prepared comprehensive "After Action Reports" following each large training exercise to detail environmental damage caused and identify remedial actions. Exhibit 20. During this time the AARs show that the property was used for an average of less than two major training rotations per year for a total of 12-16 weeks. *Id.* The District Court that reviewed the AARs found that they "show that even those limited training exercises have had severe environmental consequences." Exhibit 21 at 16.

In July 1990 the Army prepared an EA to analyze proposed Resource Management Program Modifications at the PCMS ("1990 EA"). Exhibit 22. The proposed action reorganized the existing five management units identified in the 1980 EIS into 23 units – fifteen numerical mechanized training and support areas and eight alphabetical dismounted (no vehicle) areas. *Id.* at 1-2.[11] The 1990 EA indicates that all areas would be rotated through two years of use followed by two years of rest, "with the additional management flexibility to extend the area-specific period of rest as necessary to accomplish operational environmental management strategies." *Id.* at 2. The 1990 EA also authorizes dismounted training exercise during the holiday and growing season deferment periods subject to certain limitations. *Id.* at 2-3. The 1990 EA states: "utilization of support aircraft such as helicopters and fixed wing vehicles during training would be limited as to locale or authorized activity and quantity of equipment employed." *Id.* at 3-4. The 1990 EA did not provide any specific details about the levels of training use at the PCMS that occurred between 1980 and 1990, although that information is documented in the AARs.

The 10th Special Forces Group (Airborne) moved to Fort Carson in 1992 as part of the 1991 Base Realignment and Closure ("BRAC") decision. Exhibit 34. In 1995 the 4th Infantry Division headquarters, one maneuver brigade, and support units at Fort Carson were inactivated. *Id.* at 37. One brigade was reassigned to the 2nd Armored Division at Fort Hood but remained at Fort Carson, while the 3rd Armored Cavalry Regiment was relocated to Fort Carson from Fort Bliss. Id. This troop structure essentially remained in place from 1995 until the next BRAC process in 2005. In 1997 the Army produced an EA for Training Area and Management Modifications at the PCMS ("1997 EA"). Exhibit 23. The 1997 EA declares that it "shall become a Supplement to the original Environmental Impact Statement (EIS) for Training Land

[11] The page numbers refer to the EA page numbers, even the 1993 RECs technically preceded the 1990 EA in this Exhibit.

Acquisition dated 1980." *Id.* at 2. The 1997 EA discloses that "the Army has typically conducted two or three mechanized rotations per year at the PCMS, with smaller operations interspersed." *Id.* at 3. As described in the 1997 EA:

> During each rotation, DECAM resource management professionals remain fulltime on the PCMS, observe the daily training, and consistently interact with military training personnel and the unit leaders. During these interactions, or at other times as necessary, resource management professionals make recommendations to unit leaders as to maneuver damage, soil moisture conditions, direction of main axis of training, etc.
>
> After each rotation, DECAM resource management professionals, in cooperation with other interagency partners, compile a detailed After Action Report pertaining to all environmental elements affected by the exercise. All maneuver damage is mapped and detailed.

Id. at 4. In addition, the 1997 EA explains that

> Several monitoring programs assess the degree of success of the resource management program and any required mitigative repair work. The Land Condition Trend Analysis (LCTA) program is a long term, statistically based monitoring program tied to definitive locations throughout the various habitats of the PCMS. LCTA monitors mainly vegetation, but also assists DECAM and other researchers with programs monitoring wildlife population dynamics and habitat composition. Through the auspices of an Interagency Support Agreement, the US Geological Survey monitors streamflow for both quantity and quality. A network of air quality and noise quantity monitors is in place at PCMS. These monitors are read routinely prior to and during each training rotation. Cultural resource sites are monitored before, during, and after each rotation to assess overall condition and any resultant damage.

Id. Army personnel have apparently implemented the LCTA program on an intermittent basis. LCTA data is analyzed in a 2008 USGS report, which found that between 4% and 26.6% of the PCMS was disturbed by training annually. Exhibit 19 at 29. However, actual data were only reported for the years 1989-1992, 1994 and 1999, raising a question as to why data from other years was not included.[12] *Id.* The USGS report also indicates that the Army ended rest-and-

[12] Neither the LCTA process nor any data collected pursuant to that process were mentioned in any of the 6,402 pages of NEPA documentation that the Army has produced since 2006, except for the 47-page PCMS Transformation EA, which simply describes the process in very general terms. Exhibit 12 at 30-31.

rotation land management at PCMS in 1997. *Id.* at 5.[13] In any event, the proposed action authorized following the 1997 EA eliminated the growing season and holiday deferment periods and "existing restriction to off-road vehicular maneuver." Exhibit 23 at 5. Finally, the 1997 EA allowed military units "to use a larger portion of the combined maneuver training area that was previously possible under the 1990 EA." *Id.*

In June 1999 Fort Carson became home to the 7th Infantry Division, which is composed primarily of three Reserve Component enhanced separate infantry brigades from other states. Exhibit 24 at 9. In July 2001 the 3rd Brigade Combat Team of the 4th Infantry Division became part of the Army's Division Ready Brigade Cycle, under which it is periodically put on alert to be able to deploy on short notice for real world missions. *Id.* As a result of deployments, Fort Carson reportedly used the PCMS for training infrequently between 2002 and 2007. During 2003 it was reported that there were 15,854 active duty military personnel assigned to Fort Carson. However, it has been reported that the actual average 2003 resident population of Fort Carson, including military dependents living on-post, was 11,418. Exhibit 24 at 20.

In January 2004, the Army issued an EA for the Construction/Operation of Firing Ranges and Other Training Facilities ("2004 EA") that analyzed the introduction of static (non-maneuver), small arms live fire operations at PCMS. *Id.* at 2. In accordance with the 2004 EA, "a pistol, machine gun, grenade launcher, and two zero sighting rifle ranges were constructed in 2004" at the PCMS. *Id.* According to the 2005 EA, PCMS was used mainly for large-unit maneuver training and exercises from 1985-2004. *Id.* However, the 2004 EA also observed that, even with no increase in the number of units for which Fort Carson has training responsibility or changes in missions, the demand for training space has increased." *Id.* In fact, by 2004 the Army was already engaged in an extensive secret planning effort to acquire additional lands to expand the PCMS.

In May 2004, the Army produced an internal Analysis of Alternatives Study ("AAS"), an early document required as part of the DOD land acquisition process. Exhibit 25. In December 2004 the Army produced the first draft of Piñon Vision, a formal, publicly undisclosed campaign plan developed to achieve the land and training expansion project. Exhibit 26. In April 2005, the Army issued a second internal AAS along with a Land Use Requirements Study ("LURS"), Exhibits 27-28, which was followed in January 2006 by another undisclosed detailed Piñon Vision 6.9-million acre land acquisition campaign plan, Exhibit 29. The Army submitted a Major Land Acquisition Proposal to the DOD in July 2006. Exhibit 30. On October 13, 2006, the Army released its Draft PCMS Transformation EIS, which proposed unlimited and unconstrained training on the existing maneuver site. Exhibit 1. Only four days later on October

[13] "Prior to 1997, the Army practiced rest-and-rotation land management at PCMS, when for 2 years approximately one-half of the training lands were rested while other areas were used for training exercises (Jeff Linn, U.S. Department of the Army, Directorate of Environmental Compliance and Management, written commun., March 2008)."

17, 2006, the Warner National Defense Authorization Act (public law 109-364) was enacted including the authorization for the acquisition of real property for expansion at PCMS. In February 2007 the DOD granted a waiver from its land acquisition moratorium, thereby permitting the PCMS expansion. Exhibit 31. None of the expansion planning efforts were made known to the public by the Army voluntarily – not even to the families of southeastern Colorado who lived through a bitter condemnation battle with the Army in the 1980s when the 235,000-acre maneuver site was established.

In December 2004, an infantry brigade (the 2nd Brigade of the 2nd Infantry Division) was transferred from Korea to Fort Carson under the Integrated Global Presence and Basing Strategy ("IGPBS") pursuant to a Record of Environmental Consideration ("REC") produced by Fort Carson without public notice. Exhibit 32. In 2005 the BRAC Commission recommended moving the 4th Infantry Division and two Brigade Combat Teams ("BCT") from Fort Hood to Fort Carson, reportedly representing a total increase of 4,178 military personnel and 199 civilian contractors. Exhibit 33 at 13-14 & Appendix O-6. In May 2005, the Army issued an EA for Construction and Operation of a Live Fire, Maneuver Range ("2005 EA"). Exhibit 24. The 2005 EA states that it is "a supplement to the original PCMS Land Acquisition Environmental Impact Statement (U.S. Department of the Army 1980)." *Id.* at 4. At that time, it appears that the following troops were assigned to Fort Carson:

- the 3rd Armored Cavalry Regiment, a self-contained, heavy combat unit of about 5,200 soldiers, with 400 tracked vehicles, 800 wheeled vehicles and 85 helicopters;
- the 3rd Brigade Combat Team, a mechanized infantry brigade of 3,000 – 4,000 soldiers, with 250 tracked vehicles and 1,000 wheeled vehicles;
- the 43rd Area Support Group, consisting of about 3,000 soldiers and around 900 wheeled vehicles;
- the 10th Special Forces Group, consisting of about 1,000 soldiers; and
- the 7th Infantry Division, composed primarily of the three Reserve Component enhanced separate infantry brigades.

Id. at 2-3. The 2005 EA disclosed that "[d]uring a 'normal' year, approximately 10,000 soldiers, 650 tracked vehicles, and 800 wheeled vehicles from these assigned major units conduct training at PCMS." *Id.* at 2. According to the Army, in November 2005 there were 17,754 active duty, permanent military personnel assigned to Fort Carson. Exhibit 34 at 38.

The 2005 EA authorized construction of a motorized, mechanized and dismounted maneuver live fire range in the northwestern portion of the PCMS capable of supporting the tactical operations of a Special Forces battalion in both urban and rural terrain, and a battalion task force level attack (consisting of 900-1,200 soldiers). Exhibit 24 at 1. The range provides maneuver live fire training in an urban atmosphere or convoy attack scenario. *Id.* at 5. The

"urban" element was provided by emplacing removable building facades and targets along the route inside a designated range footprint. *Id.* Combined arms training involves "different components such as tanks, helicopters, and wheeled vehicles training together in one exercise." *Id.* at 1. According to the 2005 EA, the amount of land unavailable for maneuver training during live fire range operations would be about 21,000 acres, or 9% of the total lands at the PCMS. *Id.* at 20. By this time the available mechanized maneuver area at the PCMS was reported to be 158,620 acres. *Id.* at 21.

The 2005 EA reports that the weapons systems used by ground forces would be small arms, .50 caliber and below, and M203/MK19 40mm grenade launchers, using practice grenades and pyrotechnics. *Id.* at 10. The EA also reported that military aircraft firing 20/30mm chain guns and .50 caliber weapons could be incorporated into training scenarios. *Id.* at 11. According to the 2005 EA, a training exercise would consist of a maximum of 660 wheeled and 350 tracked vehicles, while aviation support would come from OH-58D, AH-64, and UH-60 rotary wing aircraft. *Id.* Significantly, there is no mention of the use of UAS or other unmanned systems in the 2005 EA.

III. The Irreparable Impacts of Transformation Training at the PCMS, Including Air-Ground Integration Training Using Unmanned Aerial Systems, Have Never Been Properly Disclosed or Studied by Fort Carson As Required by NEPA

For more than a decade the Army has been undergoing a restructuring process referred to as "Transformation." Exhibit 2 at 1-1. In 2002, the Army prepared a Programmatic EIS for Army Transformation ("Transformation PEIS") and issued a Record of Decision ("ROD") authorizing a 30-year phased implementation of the Transformation program. Exhibits 35 & 36. According to the Transformation PEIS, Transformation is designed to change the Army from its current structure into "the Objective Force would have the characteristics of being more responsive, deployable, agile, versatile, lethal, survivable, and sustainable across the entire spectrum of operations." Exhibit 35 at ES-2.

In 2006, the PCMS Transformation EIS attempted to address the impacts of changes in training wrought by three Transformation programs: (1) the Army Modular Force ("AMF") program, which changed the size and structure of Army units by reorganizing forces into BCTs; (2) the 2005 BRAC process"; and (3) IGPBS, a program for assessing the size, character, and location of the military's overseas presence. Exhibit 2 at 1-2 to 1-3. The Proposed Action in the PCMS Transformation EIS purported to assess the impacts associated with training 23,500 soldiers at the PCMS instead of 14,500 soldiers, and construction of new facilities to support such training. *Id.*

Transformation training is fundamentally different from past Army training in terms of number of soldiers, size of training areas, frequency of training, type of equipment, intensity of impacts, and joint operations. The Army has interpreted the Transformation doctrine as a mandate to restructure the force for greater troop density while simultaneously increasing the

frequency and duration of maneuver training over larger areas using technologically advanced weapons systems. *See, e.g.*, Exhibit 2 at 1-1 & 1-3 ("Transformation also addresses changes in weapons systems. Future weapons systems would be more lethal and have targeting capabilities that surpass current weapons systems. Both aerial- and ground-operated robotics would be integrated into the transformed force. Digital command and control of units will become the standard, and digital ranges must be built to support these units. These technological changes would enable BCTs to operate on expanded battlefields and would require larger maneuver training areas to train effectively.") Therefore, any Transformation training at the PCMS that is occurring now, including but not limited to air-ground integration training using UAS, is an increase in use beyond that legally authorized to date, as confirmed by the District Court's order.

A. Air-Ground Integration Training Using Unmanned Aerial Systems and Other Unmanned Systems Is a Key Part of Transformation Training

Transformation involves the unprecedented integration of unmanned aerial, ground and water systems into military training. Exhibit 118. The Transformation PEIS explains that "[t]he transformed forces would be capable of conducting joint, multinational, and interagency missions." Exhibit 35 at 2-5. According to the Transformation PEIS:

> Fielding of new tactical unmanned aerial vehicles such as the Shadow 200 would occur. Doctrinal changes would place sections of tactical unmanned vehicles under the control of Interim BCT commanders. Together, these factors would result in considerably greater use of special use airspace over and adjacent to Army installation. Where existing airspace is insufficient or already saturated with military activity, installation commanders would have to seek additional special use airspace designations from the Federal Aviation Administration.

Id. at 4-10. The Army Transformation Road Map states that "[a]rmy aviation is undergoing a comprehensive transformation to a capabilities-based maneuver arm that is optimized for the joint fight." Exhibit 37 at 3-10. The Transformation PEIS indicates that "Army transformation would result in short- and long-term direct adverse effects to airspace use," mostly due to "the brief intense activities of deployment exercises and by routine training exercises of varying intensities." Exhibit 35 at 4-10.

Under Transformation, the Army planned to "develop and acquire what is referred to as its Future Combat System (FCS)," or "an integrated system of systems that would exploit leap-ahead advances in scientific technologies." *Id.* at 2-8.[14] The Army Transformation Roadmap

[14] FCS is "a group of manned and unmanned aerial and ground vehicles, missile launchers, and communications links." See, Exhibit 120 at XII to XIX.

confirms that Transformation training using FCS components is radically different from past training regimens:

> The FCS-equipped unit of action encompasses more than a new set of capabilities. Rather, this organization reflects a fundamentally transformed method of combat. The core of the Future Force's maneuver unit of action is the Future Combat Systems, comprised of 18 manned and unmanned platforms that are centered around the Soldier and integrated within a battle command network.

Exhibit 37 at 4-2. According to the Army, "FCS includes a variety of joint-networked, manned and unmanned air and ground vehicles; advanced sensors; highly lethal weapons." *Id.* at 3-4.[15]

In 2005, Brigadier General E. J. Sinclair, the Commanding General of the U.S. Army Aviation Center, authored an article titled "U.S. Army Aviation: A More Modular, Capable Force for the Future" that was published in the Spring 2005 edition of the Royal United Services Institute Defence Systems Journal. Exhibit 38. The stated purpose of the article is to examine "transformation in the US Army Aviation forces, including proponency for unmanned aerial vehicles, the move of combat power from corps to division, new career structures and future aviation equipment." *Id.* at 1. This article describes how UASs are an integral part of Army Transformation. *Id.* The Army Transformation Roadmap makes clear that:

> The aviation brigade will be fully capable of planning, preparing for, executing and assessing mobile strike operations and deep attacks using attack helicopters. It will retain a fully capable fire support element that possesses suppression of enemy air defense, maintains the intelligence links to track targets, and includes the Army aviation battle command element to coordinate airspace control measures as necessary — all linked to the appropriate joint systems.

Exhibit 37 at 3-8. According to the Army, the FCS equipped force is crucial to "the accomplishment of Department of Defense transformation goals," and that FCS "are the key to achieving a strategically responsive, precision maneuver force that is dominant across the range

---

[15] Air Force Transformation planning documents also show that a critical piece of Transformation is integrating ground and air weapons systems for joint operations often involving UAS. According to the Air Force Transformation Flight Plan "[a] critical part of transformation is maximizing the US military's ability to fight jointly so that the most effective force for a given situation, regardless of what Service or combination of Services contribute that force, can be brought to bear." Exhibit 39 at iii. The Transformation Flight Plan states that "[t]he Air Force and Army are working to improve air support of ground forces in a number of forums" and the Air Force has agreed to provide greater support to special operations forces. *Id.* at 15.

of military operations as outlined for the Army's Future Force within the joint operations concepts (JOpsC)." *Id.* at ix & 4-3. Subsequently, the Congressional Research Service ("CRS") reported:

> On April 6, 2009, the Secretary of Defense announced several key decisions greatly affecting Army Modernization, including halting development and procurement of the Manned Ground Vehicle component of Future Combat Systems (FCS). The Army was directed to "develop a new renamed, manned ground vehicle program based on revised requirements." Other Secretary of Defense guidance to the Army is an increased focus on the incorporation of the experiences of today's combat operations into modernization plans. He directed the acceleration of Spin-outs of proven technologies to all Brigade Combat Teams (BCTs); increasing Intelligence, Surveillance, Reconnaissance and Unmanned Aerial Systems (UAS) capabilities.

Id. at 1 (emphasis supplied). The CRS report concludes that:

> The Army will deliver capability packages consisting of key technologies and warfighter urgent requirements in two year increments that will enable ARFORGEN beginning in fiscal year 2011. The Army will expand the fielding of these capability packages to all BCTs by 2025. This capability package approach will link manned systems, unmanned systems, sensors, and munitions while incrementally improving the Network.

Id. at 4 – 6. The Army also uses Unmanned Ground Vehicles ("UGV") as part of air-ground integration training. UGVs were part of FCS and they are an integrated part of the Heavy CAB configuration.

The transmission of data from the UAS and UGV sensors to control centers during air-ground integration training requires increasingly larger amounts of bandwidth.[16] Exhibit 41 at 16-17. As an example, a single Global Hawk, already an autonomous UAS, "requires 500Mbps bandwidth—which equates to 500 percent of the total bandwidth of the entire U.S. military used during the 1991 Gulf War." *Id.* at 17. The CRS has noted that: "[t]he finite bandwidth that currently exists for all military aircraft, and the resulting competition for existing bandwidth, may render the expansion of UAS applications infeasible and leave many platforms grounded." *Id.* Several solutions to the bandwith problem have been considered, including DOD's Transformation Satellite Communications project (which was cancelled in 2009) and operating

[16] Bandwidth is the amount of data that can be transmitted over a communications link in a fixed amount of time.

UAS from airborne platforms (now underway with serious safety risks). *Id.* The Draft CAB EA fails to disclose or consider any potential impacts to bandwidth as a result of the Proposed Action.

Both the Grow the Army PEIS and the CAB PEIS state that "[t]he purpose of the Army's proposed action is to optimize aviation unit readiness by improving opportunities for air-ground integration training." See, e.g., Exhibit 14 at ES-ii However, the Fort Carson Grow the Army EIS, which purported to study the impacts of training the Heavy CAB at the PCMS, does not mention air-ground integration training or analyze any impacts associated with UAS. Exhibit 8. CAB units are normally employed in support of ground maneuver by BCTs as a part of the combined arms team.

B. All Fort Carson NEPA Reports Produced by the Army Since 2006 Have Been Crafted to Rationalize Authorization of Transformation Training at the PCMS.

Although neither the PCMS Transformation EIS nor the 2011 Transformation EA mention the term "Future Combat System," the PCMS Transformation EIS recognized that Transformation requires changes in weapons systems.[17] According to the PCMS Transformation EIS:

> Future weapons systems would be more lethal and have targeting capabilities that surpass current weapons systems. Both aerial- and ground-operated robotics would be integrated into the transformed force. Digital command and control of units will become the standard, and digital ranges must be built to support these units. These technological changes would enable BCTs to operate on expanded battlefields and would require larger maneuver training areas to train effectively.

Exhibit 2 at 1-3. In comments submitted on the Draft PCMS Transformation EIS in 2007, N1MA! objected to the Army's failure to disclose the full nature of the future weapons systems contemplated. N1MA! noted that the Draft PCMS Transformation EIS "does not disclose any information about future weapons systems to enable the public to meaningfully comment on the proposed action or its potential environmental impacts." Exhibit 43 at 31. In response, the Army claimed that "if new weapons systems are proposed in the future at the PCMS, additional

---

[17] Transformation has also been driving the Army's push to expand the PCMS by acquiring additional land in southeastern Colorado. As part of the Piñon Vision planning process, Fort Carson identified specific parcels for acquisition. The first targeted parcel - 79,592 acres located generally south of the Hogback ridge running just inside the current PCMS southern boundary – is the primary location for a planned "sophisticated battalion level CALFEX [Combined Arms Live Fire Exercise] range capable of handling Army and joint service ground and air live fire systems." Exhibit 29 at 5.

environmental analyses under NEPA would be required," pointing out that the PCMS Transformation EIS states that "not enough detail" about new weapons systems is available to assess impacts of future actions. Exhibit 2 at H-367. Nonetheless, the Army concluded that the PCMS Transformation EIS "may be used as a basis on which to tier subsequent environmental documentation for currently unforeseen future actions proposed in the mission, Cantonment, training areas, or environmental management programs." *Id.* at 1-9.

The Army released the Final Programmatic Grow the Army EIS ("GTA PEIS") just weeks after the PCMS Transformation ROD was signed. Exhibit 5. On August 24, 2007, the Army released the Draft GTA PEIS, which studied the proposed retention of a BCT that had been temporarily stationed at Fort Carson as well as a proposal to create a new BCT at Fort Carson. On October 8, 2007, N1MA! submitted comments on the draft GTA PEIS. N1MA!'s comment letter on the draft GTA PEIS is submitted herewith as Exhibit 44 and all of the statements and arguments therein are expressly incorporated by reference herein.

The GTA PEIS describes the Army's effort to "accelerate the Transformation of joint ground force capabilities." Exhibit 5 at 10. Specifically, the Army identified the following actions related to Transformation, among others:

> * Transform Army units and headquarters to modular designs.
>
> * Incorporate technology improvements and Future Combat Systems (FCS) through a spiraled development and fielding process to introduce new technologies as they develop.
>
> * Expand joint tactical air/ground operations and double the coverage capability of unmanned aerial vehicles to include the Predator and Global Hawk.

Id. The 2011 Transformation EA represents the Army's second attempt "to study the possible environmental effects of implementing the three transformation programs" at the PCMS through increased training, but to date the Army has failed to issue any decision with respect thereto. Exhibit 12 at 19.

The Army's site-specific environmental analyses conducted pursuant to NEPA contradict themselves depending on the underlying motive behind the statement. For instance, the Transformation EA attempts to justify a need for less rigorous environmental review on the basis that the training and weapons systems contemplated by Transformation are no different than pre-Transformation training and weapons systems. The Transformation EA states that the proposed action involves "increased training of the same general types that have occurred at the PCMS in the past." *Id.* at 5 (emphasis added). According to the Transformation EA, "[t]he Proposed Action does not include introduction of significantly different training methods, assignment of

new units other than those included in the 2007 PCMS EIS, introduction of new weapons systems, or construction of new ranges or facilities." *Id.* The Transformation EA then acknowledges that the training studied in the PCMS Transformation EIS "was not to be a substantially different qualitative difference in training; instead, the studied training would essentially be 'more of the same.'" *Id.* at 15.

However, elsewhere the Army takes the inconsistent position that increased training needs are related to "factors such as mission requirements, changes in tactics and strategy, changes in unit composition, and changes in weaponry, equipment, and communications capability." *Id.* at 13. Like the PCMS Transformation EIS, the 2011 Transformation EA refused to consider information about environmental impacts contained in AARs issued by the Army following training exercises. *Id.* at 19-21. Despite reproach from the District Court, Fort Carson insists that monitoring data that describes past environmental impacts in the AARs are not relevant or valid to any current environmental analysis because they are "related to equipment and tactics no longer used." *Id.* at 19. The Army claims that "[t]he period covered by these reports, from 1985 through 2002, included different units, different mixtures of equipment, and different operational schemes than would be involved in the increased training under the Proposed Action in the 2007 PCMS EIS." *Id.*

C. Fort Carson Authorized Training Using Unmanned Aerial Systems Without Environmental Review Under NEPA.

None of the 6,402 pages of environmental studies produced by the Army since 2006 provide any specific information about new weapons systems and training methods already in use at the PCMS. According to the Programmatic Combat Aviation Brigade EIS ("Programmatic CAB PEIS"),[18] "Fort Carson and PCMS have a long history of aviation training." Exhibit 14 at G-69. The CAB PEIS observes that "the 1980 draft PCMS acquisition EIS anticipated and included aviation training along with ground training at PCMS." *Id.* The CAB PEIS also claims that "[f]rom 1980 through 1995, when the 4ID headquarters was moved to Fort Hood, there was an aviation brigade," and "[f]rom 1995 through 2007, the 3rd ACR was assigned to Fort Carson and trained with its assigned aircraft." *Id.*

In the PCMS Transformation EIS, the Army reported that "[u]nder the Proposed Action air traffic would decrease from current levels" due to "the loss of helicopters, which were assigned to the 3rd ACR." Exhibit 2 at H-407. According to the PCMS Transformation EIS:

> Helicopters could be used by visiting forces, but the use is anticipated to be infrequent. Because no permanently assigned aircraft will be stationed

[18] N1MA! submitted a comment letter on the Draft CAB PEIS, which is attached hereto as Exhibit 128 and expressly incorporated by reference herein.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 23 of 123

> at Fort Carson, the Army's use of aircraft, including helicopters, will be minimal and these training activities are not described in detail because they are infrequent and not regularly planned. Air Force use of a small bombing range in the southern portion of Fort Carson would continue (as under No Action).

Id. Although the CAB PEIS recognizes that the District Court vacated the 2007 Transformation ROD, Fort Carson has taken the position that "the court order invalidating the transformation Record of Decision did not impact current or historically authorized aviation training levels at PCMS." Exhibit 14 at G-69. (emphasis added). Using this interpretation, the Army stated that the PCMS Transformation EA "proposed action would not increase aviation training beyond these historically authorized levels." *Id.*

However, the 1980 EIS generally anticipated that just 774 hours of helicopter use would accompany each brigade training period flying higher than 1,000 feet above ground level upon approach to the PCMS and routinely as low as 200 feet above ground level over the PCMS itself. Exhibit 17 at 1-7. The PCMS Acquisition EIS also indicates that Buckley Air Force Base would provide tactical support for jet missions estimated at 100 annual missions with an average of two aircraft per mission. *Id.* Neither the CAB PEIS nor the Fort Carson GTA EIS disclose how much aviation use was associated with the 4ID aviation brigade or the aircraft assigned to the 3rd ACR. The Draft CAB EA projects that pursuant to the Proposed Action somewhere between 4,960 and 7,652 hours of CAB flight time may occur at the PCMS. Exhibit 16 at 2-7, Given that the PCMS has historically been used on average less than twice per year for training exercises, a reasonable assumption is that there has not been more than 2,000 hours of annual helicopter flights at the PCMS in the past. Using these figures, the high range identified in the Proposed Action represents an increase of nearly four times over historical use.

Moreover, the helicopters that will be stationed at Fort Carson will be part of the Army's "modernized" rotary-wing aviation fleet: bigger, faster, and with more lethal and technological capabilities than ever before. The CAB is a "combined arms team" that enables the use of UAS at PCMS. Back in 2006 the PCMS Transformation EIS explained that Fort Carson needed a CAB in order to facilitate the use of UAS at the PCMS, which lacks restricted airspace. Exhibit 2 at 2-9. The PCMS Transformation EIS recites:

> Helicopters and Unmanned Aerial Systems (UASs), which includes TUASs and SUASs, generally support ground maneuvers, but helicopters are sometimes used independently of other maneuvers. None of the BCTs is currently projected to have aviation battalions. The only aerial equipment assigned to the BCTs is UASs. These UASs cannot be used at the PCMS under current conditions because the PCMS lacks restricted airspace (that is, an area that is restricted from entry, usually up to a

> certain elevation, by other aircraft). UASs can only operate in areas without restricted airspace if they are accompanied by manned aircraft. Because no manned aircraft are assigned to Fort Carson, none is available to accompany UASs.

Id. at 2-21 (emphasis added). In response to comments, the Final PCMS Transformation EIS states: "[n]o other airplanes or helicopters are proposed for use in training at the PCMS." *Id.* at H-299.

In October 2007, the Army issued the Final GTA PEIS, which disclosed that:

> Airspace at the Maneuver Training Site is used for tactical high-speed flight training for fighter or bomber aircraft. This military operations area extends from 100 feet above ground level to an altitude of 10,000 feet. Federal airways pass over and surround the Maneuver Training Site. Two instrument routes exist in these airways, and military aircraft use them for tactical maneuvers (US Army Corps of Engineers, 1995). There are no restricted designations for military or civilian use of airspace over the Maneuver Training Site.

Exhibit 5 at 152. The GTA PEIS reports that the Army did not anticipate any significant impacts to airspace use because:

> Activities within the training and range areas would be limited to existing firing ranges and roadways. In the larger BCT [Brigade Combat Team] unit scenarios, intensity of use of air space may increase; however, this increase is yet to be determined as UAVs are not currently training at the Maneuver Training Site.

Exhibit 5 at 153 (emphasis added). The GTA PEIS ROD notes that "[t]he addition of a BCT would slightly increase airspace demand to accommodate unmanned aerial systems (UAS) training at Fort Carson, Fort Stewart, and Fort Bliss, but are not projected to significantly impact air space utilization." Exhibit 6 at 26 (emphasis supplied).

Subsequently, the Army disclosed for the first time in the CAB PEIS that:

> As a result of the Army's recent Transformation and Growth initiatives, the BCTs stationed at Fort Carson are equipped with Unmanned Aerial Systems (UAS). The BCTs also train and employ UAS at the PMCS. These UAS systems compete for and fly in the same restricted and SUA and MOAs used by the USAF and Army aviation units. There is sufficient

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 25 of 123

> restricted and MOAs available at both Fort Carson and PCMS to accommodate the safe employment of Army aviation assets, UAS, and USAF aircraft.

Exhibit 11 at 5-62. However, there is no discussion about the use of UAS or description of the unique impacts associated with air-ground integration training disclosed in any of the Army's NEPA documentation, or any indication that any environmental review occurred prior to the decision to authorize UAS training at the PCMS.

The Transformed integrated armed weapons systems composing a Heavy CAB have more intensity and require more range than any previous weapons systems. Exhibit 45. The Draft CAB EA reports that "an aviation task force consisting of approximately one third of the CAB (900 Soldiers, 40 helicopters, and 250 wheeled support vehicles) would deploy from Fort Carson to PCMS 1 time per year for each BCT stationed at Fort Carson." Exhibit 16 at 2-12. Furthermore, the Draft CAB EA discloses that "[t]his aviation task force would provide approximately 2 weeks of support for each BCT brigade-level maneuver rotation." *Id.* Since there are four BCTs presently stationed at Fort Carson, the EA anticipates eight weeks or 2 months of aviation flight at PCMS each year "in order to support air-ground integration operations at the brigade level." *Id.* However, the Draft CAB EA does not set any maximum limit on CAB air-ground integration training. According to the Army:

> Training assumptions are based on doctrinal training requirements. Operational needs, funding limitations, or maneuver space limitations may result in doctrinal training requirement work-arounds.

Id. The Draft CAB EA then goes on to observe that "the CAB would support some battalion-level ground unit training with smaller aviation elements" over and above the brigade-level training. *Id.* Not only will the Army's Heavy CAB be maneuvering on the last intact shortgrass prairie, it will maneuver with other units – including but not limited to task forces, battalions, BCTs, Colorado Army National Guard, Colorado Air National Guard, etc. – thereby exponentially increasing training and associated impacts. According to the Draft CAB EA, "this training would consist of up to 10 aircraft deploying to PCMS 5 to 6 times per year for up to 10 days each time," or at least two additional months of CAB training. *Id.* Finally, the Army discloses that the CAB elements would also support Special Forces at the PCMS with infantry unit insertions and equipment sling-loading operations at the team and squad level. *Id.* Apart from all of this air-ground integration training, the Draft CAB EA notes that "CAB units would also conduct their own aviation unit collective training" at the PCMS. *Id.* Despite all of this training to be conducted by a Heavy CAB, the Army nonetheless arbitrarily and capriciously concludes that "[t]he stationing of a CAB at Fort Carson would not result in a significant increase in use or scheduling of PCMS." *Id.*

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 26 of 123

Fort Carson has now formally designated all airspace associated with the PCMS as a Military Operations Area ("MOA") special use airspace as established in the FAR Part 71. See FC Reg. 95-1, § 2-12 (Feb. 1, 2010), attached hereto as Exhibit 115. Fort Carson regulations specifically authorize terrain flight below 200 feet above ground level over the PCMS. See FC Reg. 95-1, § 5-15. Since 2010, Fort Carson regulations also permit the operation of UAS at the PCMS. See FC Reg. 95-23, § 2-2 (Aug. 1, 2010), attached hereto as Exhibit 116. According to the regulations:

> Operations at PCMS for UAV's are conducted under the applicable FAA, Certificate of Authorization (COA). PCMS is located outside of restricted airspace and the airspace is uncontrolled. A COA is valid for a period of one year; therefore, it must be renewed annually. Operations at PCMS will not be conducted if the COA is not valid.

Id. On January 13, 2012, the Secretary of the Army issued Army Directive 2012-02, which is a Supplemental Policy for Operations of Unmanned Aircraft Systems in the National Airspace System. Exhibit 46. On May 24, 2010, Fort Carson submitted a Notification of Class G Airspace ("UAS") Operations to the Federal Aviation Administration. *See,* Exhibit 47. The notification memorandum recites that Fort Carson intends to operate the Predator UAS below 1200 feet above ground level in Class G Airspace at the PCMS from June 19, 2010 through June 18, 2011. *Id.* On the basis of this information, it appears that the Army is currently training CAB elements in conjunction with UAS in violation of NEPA.

As recently as 2004 the Army prepared an Environmental Assessment to analyze potential impacts from the construction of a small arms, live fire range at the PCMS. Exhibit 24 at 2. By contrast, there has been no comparable disclosure or analysis of potential impacts of the use of the experimental, armed Gray Eagle UAS, which poses a unique set of risks including high crash rates and has the capacity to cause great harm to the quality of the human environment. However, the cumulative impacts of individual integrated weapons systems cannot be meaningfully examined individually during the environmentally review process anyway. Although Hellfire missiles are not authorized for use at PCMS, in the future the Army may expand the use of UGVs at PCMS that may trigger Hellfire missiles from integrated Gray Eagle drones followed by payload assaults by UGVs or another part of the integrated Heavy CAB summoned by Apache Longbow IIIs. Then the cycle repeats endlessly until the arms wielded by the integrated weapons systems are exhausted. UGVs are just one new technology that is enabling the destructive air-ground training that forms the backbone of the Proposed Action in the Draft CAB EA.

N1MA! demands comprehensive NEPA analysis and meaningful public disclosure of the impacts of integrated weapons systems (such as the Heavy CAB) and all of the related component parts. The Army must provide a comprehensive analysis of these systems now

before they become integrated with other technologically advanced biotech, nanotech and chemical warfare systems that are on the way. The Army's swift race to adopt untested weapons systems and use them for training has eviscerated NEPA's environmental analysis and public disclosure requirements.

D. UAS Systems Such As the Gray Eagle Pose Unique Risks and Will Cause Significant Impacts to the Quality of the Human Environment

Introducing use of UAS such as the ER/MP Gray Eagle drone will have severe consequences for the PCMS and the surrounding public and private lands. There is no accurate inventory of federally-owned and –leased UAS, but the Government Accountability Office ("GAO") reported that in 2010 the Army had a total inventory of four ER/MP aircraft. Exhibit 48 at 6. The Gray Eagle weighs 3,600 pounds and can operate at altitudes as high as 29,000 feet AGL. Exhibit 49 at 2. There has been no disclosure or analysis of impacts associated with UAS such as the Gray Eagle.

UAS technology is experimental and these unreliable aircraft are known to have an unacceptably high rate of mishaps compared to manned aircraft. The MQ-1 Predator, for instance, had an accident rate of 28 mishaps per 100,000 flight hours during its early deployment – more than triple the rate of 8.2 per 100,000 flight hours for general aviation single-piston engine aircraft. Exhibit 50 at 31. Recently the CRS reported the following data regarding Class A mishaps, which result in damage costs of $1 million or more, destruction of aircraft, and/or fatality ot permanent total disability, involving UAS:

Table 3. Selected Mishap Rates, 2005
(per 100,000 hrs)

Vehicle Type	Class A Mishaps
UAV	
Predator	20
Hunter	47
Global Hawk	88
Pioneer	281
Shadow	191
Manned	
U-2	6.8
F-16	4.1

Source: DOD's UAS Roadmap 2005-2030, p. 75.

Exhibit 41 at 18. The CRS report notes that "the UAS, with the exception of Predator, have total flight times that are significantly less the than the 100,000 hours used to calculate the mishap

rate. Most aircraft tend to have a much higher mishap rate in their first 50,000 hours of flight than their second 50,000 hours of flight." *Id.* at 19. Indeed, The CRS reported in 2006 that the lack of reliability stems from the fact that UAS technology is still evolving, "and until redundant systems are perfected, accident rates are expected to remain high." Accidents can be caused my equipment malfunctions, operator errors, and unanticipated airspace conflicts. Currently a cohesive regulatory framework to ensure UAS safety does not exist, and data on UAS operations in the national airspace, which could aid in developing regulations, is scarce. The FAA has already granted DOD authority to operate small UAS, weighing 20 pounds or less, over its installations without receiving prior FAA approval.

According to the GAO, "[b]ecause UAS do not possess 'sense and avoid' technology mandated by federal requirements for safe and efficient operations, the military services must provide, in many cases, an air- or ground-based observer of the aircraft during its flight in the national airspace system." The GAO reviewed information that DOD provided on 199 UAS military accidents of varying degrees of severity that occurred during a 4½ year period and concluded that "reliability continues to be a challenge." Exhibit 52 at 19. According to the GAO, 65% of the accidents resulted from "materiel issues, such as failures of UAS components."[19] Id. The GAO also found that "human factors issues - a common challenge in new technology - caused about 17% percent of the accidents."[20] *Id.* The remaining accidents were the result of environmental issues (6%) or undetermined causes (12%). *Id.*

A looming problem noted by many government and third-party observers is that the military is requiring increasingly greater access to the national airspace system for training due to the proliferation of UAS. The Army plans to provide 12 Gray Eagle aircraft to each of its nineteen existing active component combat aviation brigades. Exhibit 48 at 23. According to the 2010 GAO report:

> [T]the Army plans to increase the number of Shadow UAS from about 70 systems fielded at the time of our review to a goal of more than 100 systems by fiscal year 2015. According to current plans, all active and reserve component combat brigades, Army Special Forces units, fires

---

[19] GAO did not evaluate the validity of the accident information that DOD provided.

[20] Human factors issues generally means equipment designs that did not fully account for human abilities, characteristics, and limitations. A remote pilot's lack of situational awareness serves as another human factors-related challenge for the safe operation of UAS; the FAA noted that remote pilots cannot sense or assess the severity of air turbulence, for instance. Exhibit 52 at 22. "A UAS could break apart and become a hazard to other aircraft or to persons or property on the ground if the pilot has no indication of turbulence or its severity." *Id.* The GAO concluded that "[b]ecause a pilot does not risk his own safety when operating a UAS, the pilot may operate the UAS in situations unsuitable for the aircraft, such as flying through turbulence strong enough to destroy the UAS's airframe." *Id.*

> brigades, and battlefield surveillance brigades will be provided with Shadow systems. In some cases, relocations of UAS to different installations have resulted in increased UAS inventories at the new installations. For example, in 2009, the Army moved the 4th Infantry Division and two combat brigades from Fort Hood, Texas, to Fort Carson, Colorado. This move resulted in the addition of two Shadow systems on Fort Carson. Army officials acknowledged that increases in UAS inventories will further complicate the competition for limited quantities of DOD-managed airspace.

Id. at 22-23. The GAO reported that DOD "estimated in a December 2008 report that based on planned UAS inventories in fiscal year 2013, the services will require more than 1 million flight hours to train UAS personnel within the United States." *Id.* at 23. At the same time, the Air Force is increasing its UAS fleet and will also require increased access to the national airspace for training purposes. *Id.* The Air Force Global Hawk weighs roughly 30,000 pounds. GAO reports that to date "Air Force UAS personnel and Army ground units have limited opportunities to train together in a joint environment." Id. at 25-31. Recently the Aircraft Operators and Pilots Association raised concerns about proposed restricted airspace for UAS south of Devil's Lake in North Dakota, stating that the designation "would set a dangerous precedent in creating additional restricted airspace for use solely by UAS." Exhibit 51.

UAS have communications, command, control, and physical security vulnerabilities that should have been disclosed and analyzed in the Army's environmental review documents. If a UAS command and control system is interrupted, a UAS can collide with other aircraft or, if it crashes to the earth, cause injury or property damage. Exhibit 52 at 18. According to GAO, "[t]he lack of protected radio frequency spectrum for UAS operations heightens the possibility that an operator could lose command and control of the UAS." Id. The GAO reported that the wireless technology used in connection with UAS is "vulnerable to unintentional or intentional radio interference." Id. If the radio frequency is interrupted, such as by jamming, the only means of controlling the UAS may be severed. Id. Hostile takeover of ground control stations is also a concern. Id. at 3. Finally, the Army has just recently begun using a new upgrade to the Apache attack helicopter – the AH-64D Longbow Block III – which has interoperability with UAS that permits a pilot in flight to control a drone while both aircraft are airborne, tap into its streaming video, and use its sensors for target engagement – the only aircraft with such a capability. Exhibit 53. The Longbow Block III "will have a top speed of approximately 164 knots, about 20 knots faster than those currently in service." Exhibit 53. None of the Army's environmental review documents indicate whether this type of training will occur at PCMS or not.

It is also unclear whether or to what extent helicopters and Gray Eagle drones will engage in live fire training activity at the PCMS. According to the 2007 INRMP, "no live fire from

fixed- or rotary-wing aircraft occurs [at PCMS] except on the Live Fire Maneuver Range, which can support limited helicopter firing." Exhibit 34 at 42. Gray Eagles can carry up to four Hellfire missiles. Exhibit 49. Fort Carson manages a Federal Aviation Administration-approved Controlled Firing Area above the live fire, maneuver range at the PCMS. PCMS currently has no restricted airspace or other designations restricting any civilian or military aircraft from flying over the maneuver site. The Draft CAB EA and its predecessors report that the Proposed Action will result in a 6.5% increase in live fire activity at the PCMS, but this statistic is meaningless because there is no indication of how much live fire occurs at the present time. Without disclosing roughly how much helicopter and UAS live fire has occurred at the site in the past, and how much is expected to occur, in the future, there is simply no way for the public to understand the impacts that could be caused by a 6.5% increase in live fire (assuming that the 6.5% is even accurate, which is disputed by N1MA!). There is no quantifiable estimate of any UAS use in any of the Army's NEPA reviews.[21]

The use of UAS technology at the PCMS will also have significant psychological impacts on the surrounding communities. For more than thirty years the people of southeastern Colorado have clashed with the Army over issues related to the PCMS, and the knowledge that the Army is testing experimental reconnaissance and attack drones in the region arouses fear, resentment and suspicion – all of which are significant negative impacts on the quality of the human environment that should have been disclosed and analyzed by the Army. Privacy is a major issue for those living in the area because the use of UAS will give the military unprecedented ability to pry into the lives of ordinary citizens. The knowledge that unmanned drones are operating in the area further depresses land prices and the local economy by discouraging newcomers from moving to the area. Ranchers and residents of southeastern Colorado are already experiencing the stress that comes with overflights by low-flying experimental aircraft such as the CV-22 Osprey, which flies "as low as 200 feet above-ground-level (AGL) with speeds below 250 knots indicated airspeed." The addition of Gray Eagles and other UAS into the mix will increase the distrust and anger that develops in response to the military's appropriation of the local airspace.

The Army has also failed to evaluate how aviation and UAS use in the area may develop in light of Air Force plans to conduct low altitude tactical navigation ("LATN") training for the Osprey and C-130 aircraft in northern New Mexico and Colorado. Originally the Air Force's proposed training encompassed the PCMS. Records obtained by N1MA! show that the Army has already expanded and increased the use and intensity of training at the PCMS to include use by the CV-22 Osprey. Exhibit 55. This low altitude training was authorized by the Army in

---

[21] More background information on UAS is provided in the DOD "Unmanned Aircraft Systems Roadmap," attached hereto as Exhibit 54, the GAO report "Unmanned Aerial Vehicles: Improved Strategic and Acquisition Planning Can Help Address Emerging Challenges," attached hereto as Exhibit 123, and the CRS Report "Unmanned Aerial Vehicles: Background and Issues for Congress, attached hereto as Exhibit 130, all of which are expressly incorporated herein.

2009 based upon a REC without pre-existing or previous NEPA documentation. *Id.* Training records produced by the Army show that the Army Reserve was scheduled to conduct operations on downrange landing zones with Osprey aircraft on March 3, April 4, April 8, 15, April 19, and November 3, 2011, apparently in coordination with the 71st Special Operations Squadron from Kirtland Air Force Base in New Mexico. Exhibits 56 & 57. This was a violation of NEPA, CFR 32 Part 651.19 (Army Regulation 200-2), and the Court Order. In addition, one of the two clamshell buildings that were identified as construction projects in Appendix B in the PCMS Transformation EIS is designed to accommodate C-130 aircraft. Exhibit 55. Using a REC, Fort Carson authorized the construction of two clamshell maintenance shelters at PCMS during the summer of 2010 – one for tracked vehicles and one for aircraft. *Id.* According to the REC:

> The clamshells would include two drive-through maintenance bays suitable for heavy tactical vehicles, such as tanks, armored vehicles, trucks, and other military vehicles, to include aviation assets…The overall size of each shell is approximately 18' x 10' high x 60' wide x 141' long… The current vehicle maintenance facility at the PCMS is small, and maintenance is limited to small wheeled vehicles. It is not large enough to accommodate tanks and other armored vehicles or helicopters…

Id. In connection with construction of the clamshell vehicle maintenance facilities, the Army also relied on RECs to authorize construction of a 2500 foot long water line to fire hydrants located near the buildings on February 28, 2011, which would "provide the capability to refill fire apparatuses for fire protection of C-130s that utilize the airfield as well as for protection of the clamshells." *Id.* Given that Holloman Air Force Base in New Mexico is an emerging hub of UAS activity and that Cannon Air Force Base is proposing a LATN area for the use of C-130 and CV-22 aircraft as low as 200' above ground level in the area, at the very least the Army should have disclosed to the public and taken a hard look at the potential cumulative environmental impacts disclosed to the public as part of the Draft CAB EA and its predecessors.

E. The Army Is Already Conducting Transformation Air-Ground Integration Training at the PCMS in Violation of NEPA and the District Court's Order.

The 2011 Transformation EA confirms that Fort Carson's force structure and weapons systems have already been transformed. According to the PCMS Transformation EA, "AMF transformed Army combat brigades, including those stationed at Fort Carson, into self-sufficient brigade combat teams; activated support units supporting the BCTs; relocated the 3rd Armored Cavalry Regiment from Fort Carson to Fort Hood; and changed weapons and communications systems to enable BCTs to operate on expanded battlefields and areas of operation." Exhibit 12 at 2. The four primary units assigned to the 4th Infantry Division at Fort Carson are Transformed BCTs – three Heavy BCTs and one Infantry BCT. As noted earlier, this alone represents a total of 20,000 soldiers, 1,082 tracked vehicles, 3,630 wheeled vehicles and sixteen TUASs that are

chomping at the bit to use the PCMS for mechanized air-ground integration training with a new Heavy CAB. However, this Transformation use has not been properly studied in or authorized following any valid NEPA analysis.

Since the issuance of the 2006 PCMS Transformation EIS, the Army has admitted that:

> Ground forces need large contiguous maneuver or training areas with urban training range complexes and road networks to support "free-flowing" exercises that replicate the contemporary operating environment. Aviation, communication, reconnaissance, and artillery units operate above the ground and over large areas of non-contiguous land that is remote from other units. The effective integration of these units with ground maneuvers is increasingly critical to the success of Army operations and requires intensive training and rehearsal at home stations.

Exhibit 2 at 1-5. The PCMS Transformation EIS also states that "[h]elicopters and Unmanned Aerial Systems (UASs), which includes TUASs and SUASs, generally support ground maneuvers, but helicopters are sometimes used independently of other maneuvers." *Id.* at 2-9.

The Cultural Resources AAR for the July-August 2010 Warhorse Rampage clearly shows the significantly greater impacts that have been and will continue to be caused by air-ground integration training. *See,* Exhibit 58. In the February 2011 PCMS Environmental Site Assessment ("PCMS ESA") that was prepared following a legislative site visit to investigate damage caused by Warhorse Rampage, it was reported that: "[b]ased on the extent of vegetation damage caused by tanks during the July-August maneuvers, and given the fragility and slow recovery time of the shortgrass prairie ecosystem, we believe it will take decades for plant communities in some disturbed areas to recover to pre-disturbance conditions." *See,* Exhibit 59 at 27 (emphasis added). The PCMS ESA describes severe environmental damage caused by the Warhorse Rampage training exercise in stark detail as described below:

> Recent tank tracks were widespread on both sides of Pipeline Road from County Road 143 (White Root Ranch) north to County Road 70, and along County Road 70 east and north to Cowboy Spring. In several areas along Pipeline Road, the tracks traversed ephemeral wetlands in intermittent stream channels (Figures 5 and 6). In other areas multiple overlying tank tracks had denuded all vegetation from strips of prairie as much as 8 m across (Figures 7 and 8).
>
> Along County Road 70 east of Pipeline Road, we observed tank tracks as much as 50 cm across and 37 cm deep cutting through wet areas and sandy areas (Figures 9 and 10). In two places it appeared as if a tank had become

> mired in the mud and sand, creating multiple 30 cm-deep ruts as it spiraled around (Figures 11 and 12).

Id. at 17; *see also* Exhibit 60 (aerial photographs). The authors note that the PCMS Acquisition EIS "specified minimal disturbance of wetlands and 'deferment' of maneuver activities when soils are wet." *Id.* Comparing the damage they observed to these standards, the PCMS ESA concludes that:

> Both of these provisions appear to have been violated by the July-August maneuvers. One of the drivers of the tour vehicles told us the area received 3.5" of precipitation during the two to three weeks of maneuvers. The Trinidad weather station, located near Trinidad State College approximately 30 km (18.8 miles) southwest of the Maneuver Site, reported 1.94" of precipitation on July 25, 1.74" on July 26, and a total of 5.86" during the month of July. The 112-year average July precipitation for the Trinidad weather station is 2.48.

Id. at 3. The PCMS ESA further observed that "[m]ost of the tank track damage we observed was in areas of shortgrass prairie." *Id.* at 25. According to the authors:

> This ecosystem recovers slowly from disturbances that denude vegetation. Some farm fields in southeastern Colorado and adjacent states that were left fallow during the Dust Bowl still show signs of disturbance more than 70 years later (New Mexico Department of Fish and Game 2006). A study of succession of abandoned fields in the Pawnee National Grassland of northeastern Colorado (Reichhardt 1982) determined that plant species composition of fields plowed during the 1930s and then left fallow was drastically different from that of unplowed areas. Frequency values for blue grama grass (*Chondrosum gracile*), a shortgrass prairie dominant, were as low as 2% in some old fields compared to 40-60% in adjacent unplowed fields. During our tour of the Maneuver Site, Army personnel showed us tank tracks from the 2002 maneuvers that are still clearly visible and only partially covered with native grasses.

Id. at 25. The PCMS ESA explains that any off road vehicle use can cause soil compaction, resulting in decreased water infiltration, increase runoff, increased sediment transport and severe erosion. *Id.* "Both the 1980 EIS (U.S. Army Corps of Engineers 1980) and a 1987 hydrology study on the Maneuver Site (Guerard, Abbott, and Nickless) predicted that removal of vegetation and soil compaction by tank tracks would lead to an increase in sediment loads carried by streams." *Id.* In addition, the PCMS EIS notes that "[v]ehicle tracks provide vectors for noxious weed invasion (Hall 1980, Lacey et. al 1997)." *Id.* The PCMS ESA reports that:

> A 1990 study of tracked vehicle impacts on vegetation at the maneuver site (Shaw and Diersing 1990) noted reduced vegetation groundcover and increase percentage of bare ground in tracked areas. The study also noted a "major shift" in species composition from perennial warm-season grasses to annual cool-season grasses. Reduction in shrub, tree, and succulent plant densities by tracking were extensive, and the study concluded that "if this trend continues, density of juniper will soon be reduced to a critical level, because regrowth of this species is extremely slow."

Id. at 25. This 1990 study concluded that a two-year rotation, as proposed under the original 1980 EIS, "may not be long enough for adequate recovery based on ecological studies conducted in the region." *Id.* The investigators added that "PCMS should be used during certain seasons and only under certain soil moisture conditions to minimize military training impacts." *Id.*

Ultimately, the authors of the PCMS ESA concluded:

> Based on the extent of vegetation damage caused by tanks during the July-August maneuvers, and given the fragility and slow recovery time of the shortgrass prairie ecosystem, we believe it will take decades for plant communities in some disturbed areas to recover to pre-disturbance conditions. Comprehensive monitoring, along with an active program of re-seeding and protection of disturbed and sensitive areas, will be required to promote recovery.

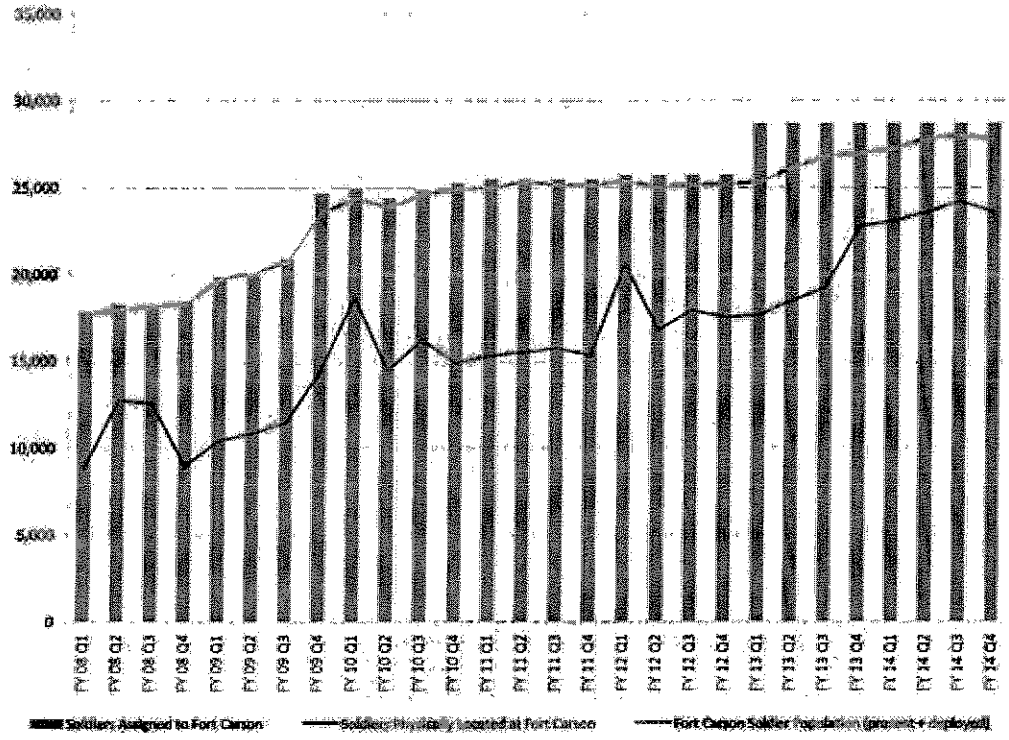
Id. at 27. Destructive air-ground integration training is already occurring at the PCMS despite the fact that the Transformation ROD was vacated, meaning that as of today there is no valid authorization for these activities under NEPA. Even though Fort Carson has never conducted any environmental analysis of the use of UAS at the PCMS, it appears that CAB elements are already supporting training involving UAS. The Army's use of the PCMS for Transformation training involving joint operations, integrated ground-air live fire exercises, CAB elements, FCS and UASs has caused irreversible damage to the PCMS and violates NEPA and the District Court's September 8, 2009 order.

IV. The Environmental Analysis in the Draft CAB EA is Invalid Because It Incorporates the Environmental Analysis from the PCMS Transformation EIS that Was Vacated By The U.S. District Court for Colorado in 2009

On November 23, 2005, the Army issued a Notice of Intent to Prepare Environmental Impact Statements for Realignment Actions Resulting from the 2005 BRAC Commission's Recommendations. 70 Fed. Reg. 70,793 (Nov. 23, 2005). As part of this process, the Army

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 35 of 123

prepared two separate EISs that are relevant here: (1) the Fort Carson Transformation EIS; and (2) the PCMS Transformation EIS. In both cases, the major "action" studied was the stationing and training of an additional 10,000 soldiers at Fort Carson pursuant to a series of Department of Defense programs: Transformation, BRAC 2005 and the IGPBS. The combined effect of these programs has been to increase the troop population assigned to Fort Carson from 14,500 Soldiers in 2006 to reportedly more than 25,000 soldiers today. Below is a graph prepared by the Pikes Peak Area Council of Governments that depicts the increase in soldiers at Fort Carson over the past few years and projected into the future (showing total numbers of soldiers assigned to Fort Carson as well as numbers of troops physically present at Fort Carson):



The environmental analysis in both the PCMS Transformation EIS and the Fort Carson Transformation EIS was substantially identical, with many sections of text reproduced verbatim in both documents. N1MA! challenged the PCMS Transformation EIS in federal court on the ground that the Army's environmental analysis was flawed.[22] Among other charges, N1MA! alleged that the PCMS Transformation EIS failed to provide any meaningful description of the anticipated intensity and frequency of increased training at the PCMS, and that the operating

[22] Although the same reasoning appears in the Fort Carson Transformation EIS, N1MA! did not challenge that EIS in court. PCMS is a separate military installation from Fort Carson, which has management responsibility for PCMS.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 36 of 123

parameters contemplated by the Proposed Action – unlimited and unconstrained military training at the PCMS, 24 hours per day, 7 days per week and 365 days per year – were irreconcilably inconsistent with a finding that the Proposed Action would not cause any significant environmental impacts.

Ultimately the District Court agreed with N1MA! and vacated the PCMS Transformation ROD in the case of *Not 1 More Acre! v. U.S. Department of the Army,* No. 08-CV-00828-RPM, 2009 WL 2913218 (D. Colo. Sept. 8, 2009). Exhibit 21. The Court held that "[b]ecause the EIS does not adequately assess the impact on the environment of the increase in the intensity and duration of training operations necessary to meet the Army's stated purposes for its action, the Army's reliance on it makes the ROD an arbitrary and capricious action, an abuse of discretion and a decision not in accordance with NEPA, requiring the intervention of this Court under the Administrative Procedure Act ("APA"), 5 U.S.C. §§ 701-706." *Id.* at 2. The Court noted that "[a] major flaw of the EIS is that it contains only vague descriptions of the anticipated increase in use" and failed "to provide any meaningful description of the anticipated intensity and frequency of the additional training activities to be conducted on this land and the consequences to the environment." *Id.* at 13. Insofar as the proposed action would have permitted the entire site to be used for training purposes every day of the year, the Court held that "the Army's conclusion that there would be no significant environmental impacts is counter-intuitive" and that "[i]t is obvious that such intensive use of the PCMS prevents any meaningful mitigation of the resulting environmental impacts." *Id.*

The Court faulted the PCMS Transformation EIS for failing to recognize "the need for scheduling training in a manner that permits rest, recovery and restoration of this fragile land." *Id.* at 14. Although the EIS acknowledged that increasing the frequency, duration and intensity of training exercises, and particularly an increase in mechanized training exercises, would cause substantial disturbance to soils, vegetation, wildlife habitat and cultural resources at the PCMS, the Court criticized the Army for representing that "the continuation of existing land management and environmental programs would provide adequate means for sustainable land management," a conclusion that the Court found "inconsistent and irreconcilable" with Army's own prior analyses. *Id.* at 15. The Court examined the environmental impacts analysis contained in the 1980 EIS and found that "[t]he Final PCMS Transformation EIS does not include any comparable analysis." *Id.* at 15-16.

Finally, the Court also held that the Army's claim that "not all potential environmental effects resulting from increased training levels can be precisely determined at this time" due to "limited quantitative baseline data" lacked candor, because the Army's own AARs "show that even those limited training exercises have had severe environmental consequences." *Id.* at 16. The Court found that the information in the AARs "demonstrates the failure of the EIS to give consideration to foreseeable adverse environmental impacts of the expected increase in training exercises and the adequacy of the plans for mitigation." *Id.* at 17. The Court noted that such "intense use precludes any meaningful mitigation of the environmental impact of military

operations," and that "[t]he conclusion that significant environmental impacts of such unlimited use can be avoided through mitigation practices represents a clear error of judgment." *Id.* The Court concluded that "the Army cannot rely on representations about the continuation of existing mitigation efforts to limit its impacts analysis or to limit the alternatives analysis as it did." *Id.* The Court noted that "[w]hile NEPA does not guarantee a particular outcome, NEPA does require the Army to give more careful consideration to the consequences of its proposed action than what appears in this EIS." *Id.* at 18.

Soon after completing the PCMS Transformation EIS, but before the District Court rendered its decision in 2009, the Army commenced a NEPA process to study changes contemplated under the service-wide "Grow the Army" initiative. On August 24, 2007, the Army released the Draft GTA PEIS, which studied the proposed retention of a BCT that had been temporarily stationed at Fort Carson as well as a proposal to create a new BCT at Fort Carson. Exhibit 3. On December 19, 2007, the Army issued the GTA PEIS ROD based on the Final GTA PEIS, which expressly relies upon the environmental analysis in the PCMS Transformation EIS. Exhibit 6. The GTA PEIS ROD recites that "Fort Carson has completed Environmental Impact Statements for both itself and the Pinon Canyon Maneuver Site (PCMS) that analyzed the permanent stationing of [the retained] BCT," and noted that its decision "takes the information in those documents into account." *Id.* at 14.

Subsequently, Fort Carson began a site-specific EIS to study the impacts associated with implementing the decision made in the GTA PEIS ROD. In addition, Fort Carson decided to analyze the possible stationing of a Heavy CAB as part of the Fort Carson GTA EIS. Exhibit 7 at E-1.[23] N1MA! submitted comments on or about November 24, 2008 explaining that the Fort Carson GTA EIS violated NEPA because, *inter alia,* it (1) failed to consider impacts associated with the Army's proposed land expansion at PCMS; (2) failed to analyze a range of reasonable alternatives; (3) failed to provide sufficient information about the anticipated use of PCMS to enable the public and agency officials to take a "hard look" at the potential environmental impacts; (4) based its environmental analysis on scientifically invalid methods; and (5) authorized irreversible harm to grasslands, wildlife, water resources, soils, air quality and cultural resources at the PCMS and surrounding public and private lands. Exhibit 61. N1MA!'s comment letter on the draft Fort Carson GTA EIS is submitted herewith and all of the statements and arguments therein are expressly incorporated by reference herein. The Final Fort Carson GTA EIS was issued in February 2009. Exhibit 8.

According to the Fort Carson GTA EIS, "[a]viation maneuver training at PCMS would be conducted in support of heavy armored force on force maneuver rotations, and in support of infantry and special operations exercises." *Id.* at 4-34. "The CAB is the standard design for

---

[23] N1MA! submitted a scoping letter in advance of the Draft Fort Carson EIS; the letter is attached hereto as Exhibit 126 and expressly incorporated by reference herein.

Army aviation brigades under the modular force plan," comprised of roughly 2,800 Soldiers, 116 helicopters, and 700 tactical vehicles (e.g., light trucks, fuelers, and transport vehicles). *Id.* at 1-3 & 2-7. The CAB also operates in coordination with TUAS that are "[u]sed to support integral intelligence, reconnaissance, and target acquisition" and UAS designed to provide "real-time data, intelligence, surveillance, and reconnaissance support for base perimeter defense and convoy protection." *Id.* at 2-15 to 2-16.

The Fort Carson GTA EIS expressly stated that "the CAB is part of Army Transformation" and that "[t]he stationing of a CAB to support these units would support and enhance integrated training at Fort Carson." *Id.* at 1-3. Fort Carson also noted as justification for the CAB that "the Army is making progress in its efforts to emphasize urban, Special Forces, intelligence gathering, and joint and multinational training at Fort Carson and PCMS to ensure current and future mission success." *Id.* The Fort Carson GTA EIS recites that "[t]raining would involve execution of day-to-day support operations and routine joint military training at nearby training lands and ranges." *Id.* at 2-13. The Fort Carson GTA EIS discloses that "impacts from training an additional IBCT and potential CAB at PCMS could directly and indirectly affect nearly all available training areas within the boundaries of PCMS." *Id.* at 4-63. With respect to cultural resources, the Fort Carson GTA EIS concludes that "[t]he Fort Carson CRM has made an initial determination that an Area of Potential Effect for this action cannot be adequately determined at this time, as the extent of potential ground or site disturbance is unknown." *Id.*

The Fort Carson GTA EIS repeatedly emphasizes that its environmental analysis is based on the environmental analysis from the now-vacated PCMS Transformation EIS. The Fort Carson GTA EIS references the vacated PCMS Transformation EIS in many key places including:

> *"This EIS incorporates the analysis of the 2007 GTA PEIS and 2007 Fort Carson (Reference No. 9) and PCMS Final Transformation EISs (Reference No. 119), by reference." *Id.* at 1-5.
>
> *"The types of training and maneuver activities that would occur under this action would be consistent with Fort Carson's current training activities. Training, as described in the 2007 Fort Carson and PCMS Transformation EISs, is accomplished adaptively, based on the commander's intent for the training exercise and/or the availability of limited training resources (maneuver area and firing range availability)." *Id.* at E-2, 2-11 & 4-35.
>
> *"The 2007 Fort Carson and PCMS Transformation EISs addressed training by all units at Fort Carson under general Army doctrinal guidance." *Id.* at 2-12
>
> *"The 2007 Fort Carson and PCMS Transformation EISs discussed the implementation of these initiatives at each location. Decisions made and the

> resulting conditions described in those EISs generally serve as the baseline conditions for this EIS." *Id.* at 1-2.
>
> *"Types of impacts from training expected to occur to vegetation, wetlands, and wildlife and their habitats under the Proposed Action would be similar to the No Action Alternative (implementation of Transformation); however, impact intensities would be expected to increase." *Id.* at 3-88.
>
> *"Under the No Action Alternative, the addition of Soldiers at Fort Carson associated with Transformation will continue in accordance with BRAC 2005, GDPR and AMF as discussed in the 2007 Fort Carson and PCMS Transformation EISs. Training impacts already analyzed in the 2007 PCMS Transformation EIS are included as part of this No Action Alternative. For purposes of this EIS, impacts to vegetation, wildlife, and wetlands from training currently occurring at PCMS would continue to occur at similar levels under the No Action Alternative." *Id.* at 4-63.
>
> *"The Proposed Action would not adversely impact the generation, use and handling of other hazardous and toxic substances at PCMS. Treatment of these substances was analyzed under maximum training loads in the 2007 PCMS Transformation EIS." *Id.* at 4-85

Indeed, the analysis in the Fort Carson GTA EIS used the proposed action from the PCMS Transformation ROD as the baseline conditions that form the basis of the "No Action" alternative:

> Force structure, personnel, and equipment would be as they exist after the implementation of the Transformation activities studied in the 2007 Fort Carson and PCMS Transformation EISs (i.e., Base Realignment and Closure [BRAC] 2005, Global Defense Posture Realignment [GDPR], and Army Modular Force [AMF]). .....
>
> The No Action Alternative provides a baseline condition from which to assess the comparative environmental impacts of alternatives.

Id. at E-3 (emphasis supplied); *see also, id.* at 1-2, 2-25, & 2-26 ("Under the No Action Alternative training would be conducted as outlined in the 2007 Fort Carson and PCMS Transformation EISs").

N1MA! performed a comprehensive comparison of the Fort Carson GTA EIS and the PCMS Transformation EIS and verified that much of the analysis in the Affected Environment and Environmental Consequences sections of the latter is produced virtually verbatim in the former with only minor changes. For example, the entire analysis of water resources is word for word the same in both documents. Submitted herewith as Exhibit 62 is a document created by

N1MA! that shows those sections that were simply lifted from the PCMS Transformation EIS and inserted directly into the Fort Carson GTA EIS. Since the District Court found that the Army's environmental analysis in the PCMS Transformation EIS to be flawed and vacated the ROD that relied upon it, it necessarily follows that the Fort Carson GTA EIS and ROD are similarly flawed because they relied upon that same analysis. Vacating the PCMS Transformation ROD, invalidates the GTA and CAB NEPA analyses.

V. The Methodology Used by the Army in the Environmental Analysis Is Arbitrary and Capricious Because It Is Not Based on Generally Accepted Scientific Principles

In reaching the conclusion that all environmental impacts associated with training a Heavy CAB at the PCMS would be "less than significant" or "mitigable to less than significant," the Army relied upon a number of hyper-specific and scientifically dubious predictions about the increased training at the PCMS and its impacts. First, the Fort Carson GTA EIS noted that:

> As part of the Proposed Action, the Army would increase its live-fire training activities by approximately 27 percent through the stationing of the IBCT, CAB, and select CS units. The stationing of the IBCT would account for approximately 20 percent of the increased live-fire activities at Fort Carson and the CAB would account for an additional 6.5 percent increase in the firing activities at Fort Carson.

Exhibit 8 at 2-8. In addition, the Fort Carson GTA EIS predicted that:

> As part of the Proposed Action, the Army would increase the frequency of its maneuver training activities by approximately 20-25 percent through the stationing of the IBCT, CAB, and select CS units. Implementation of maneuver training as part of the Proposed Action would result in an approximate 15 percent increase in the aggregate number of Maneuver Impact Miles (MIMs) at Fort Carson.

Id. Based on this MIMs analysis, the Army also projected "a 8.6% increase in soil surface and vegetative disturbance impacts"; this figure does not distinguish between impacts caused by the IBCT and impacts caused by the CAB. N1MA! believes that this MIMs methodology is both scientifically unfounded and designed to mislead the public into believing that the impacts associated with increased training at the PCMS will not be significant. Even if the model is a valid methodology, however, for a number of reasons set forth in the Army's own reports it is clear that the model has been implemented incorrectly. As with any model, the standard adage is: "Garbage In, Garbage Out." N1MA! calls for the Army to release all data and calculations used in connection with the MIMs model before the second public comment period begins.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 41 of 123

A. The Army's Estimate of Increased Live Fire Maneuver Training Does Not Disclose How Much Live Fire Activity is Conducted Now and Relies on an Incorrect Baseline of Live Fire Activity Analyzed in the Vacated PCMS Transformation EIS

The assertion that there will be a 6.5% increase in live fire activity due to CAB training at the PCMS should cause an objective reader to question – a 6.5% increase over what baseline? If live fire activity is currently permitted 100 days per year, for instance, a 6.5% increase could be considered an additional 6.5 days. So what does the Army rely on for the baseline level of existing permitted live fire activity for this analysis? As noted earlier, the Draft CAB EA is based on the 2009 Fort Carson GTA EIS and the 2008 CAB PEIS, which are both based on the vacated PCMS Transformation EIS. There are many examples in the Fort Carson GTA EIS that demonstrate that the Army relied upon the flawed environmental analysis from the PCMS Transformation EIS in studying the potential stationing of a CAB at the PMCS. *See, e.g.*, Exhibit 8 at 4-35 ("Under the No Action Alternative, there would be no impacts to geology or soils above those assessed in the 2007 PCMS Transformation EIS") & E-8 ("IBCT convoys to PCMS would not cause significant traffic increases above those discussed in the 2007 PCMS Transformation EIS") (emphasis added). The baseline studied in the Fort Carson GTA EIS assumed that the training authorized by the PCMS Transformation EIS was a done deal – thus, the baseline was training 23,000 soldiers at the PCMS instead of the merely 14,500 soldiers that were stationed at Fort Carson prior to BRAC 2005 and the other changes contemplated as part of Transformation.

Small arms live fire training was introduced to the PCMS in 2004 following the Army's preparation of an EA. Exhibit 24 at 2. In 2005, the Army authorized live fire maneuver training the PCMS following completion of another EA. Exhibit 24. According to the 2005 EA, the approximate size of the "surface danger zone" associated with the live fire, maneuver training range is 20,900 acres, or about 1/10 of the entire property. *Id.* at 9. The live fire, maneuver range includes most of the soil protection areas that were off limits to mechanized military maneuvers until January 2005. *Id.* at 31 ("Much of the surface danger zone for the Proposed Action includes this area."). The live fire, maneuver range also includes 57 acres of wetlands. *Id* at 34-35. The 2005 EA explains that:

> The increased accuracy and lethality of current and emerging weapon systems require the development of live fire ranges that allow soldiers to engage targets at the maximum effective range of the weapon system. By developing the PCMS to include a live fire maneuver area capable of supporting the tactical operations of a Special Forces battalion in both urban and rural terrain, and a battalion task force level attack (900-1,200 soldiers), live fire operations above the section or platoon level (less than 20 soldiers) become possible. Soldiers are afforded the opportunity to use their weapon systems in synchronization with company and battalion size

> maneuver as part of the combined arms team, i.e. different components such as tanks, helicopters, and wheeled vehicles training together in one exercise.

Id. at 1. In addition, according to the 2005 EA:

> A Controlled Firing Area is a designation given to the area above a firing range that is agreed upon by the Army and the Federal Aviation Administration to be managed by the Army. Fort Carson has this designation for the live fire, maneuver range. This would result in cease-fires for all firing on the range whenever a private or commercial aircraft approaches. The Controlled Firing Area is slightly larger than the surface danger zone to provide an extra margin of safety and administrative control. PCMS currently has no restricted airspace or other designations restricting any aircraft from flying over the maneuver site. An air guard will be posted during all firing events on the range and would shut down training whenever nonmilitary aircraft approach. Firing would then resume after the aircraft left the area4. Military aircraft will be used to support this live fire training.

Id. at 10. .The Controlled Firing Area is from surface to 3,500 feet AGL for live fire involving the 40MM Grenade Launcher, 9MM pistol, M4 and M16 rifle, and the M2 machine gun. *Id.* at Appendix B The FAA approval, which states that it expires December 31, 2007, provides for daily live fire usage in the range from 7:00 a.m. to 7 p.m. with occasional 24 hour usage. *Id.* The FAA approval also states that the range will be used "approximately 120 days per year." *Id.* The 2005 EA did not attempt to quantify the amount of small arms fire that would be allowed to occur at the range in terms of amount of munitions or other parameters.

The PCMS Transformation EIS stated that "frequency of small-arms live-fire training at the PCMS would increase" but failed to quantify that increase. Exhibit 2 at 2-27. In the Fort Carson GTA EIS, the Army predicted that "the Army would increase its live-fire training activities by approximately 27 percent through the stationing of the IBCT, CAB, and select CS units," with the stationing of the IBCT accounting for 20% of the increased live-fire activities at Fort Carson and the CAB accounting for "an additional 6.5 percent increase in the firing activities at Fort Carson." Exhibit 8 at 2-8. The Fort Carson GTA EIS describes CAB live fire training:

> Units conduct aerial gunnery at the ranges with the Observation Helicopter (OH)-58D (Kiowa) and the Attack Helicopter (AH)-64 (Apache). Door gunnery live-fire training tasks would be conducted from the Cargo Helicopters (CH)-47 (Chinook) and Utility Helicopters (UH)-60 (Blackhawk).

Id. at 2-13. The Fort Carson GTA EIS states that "[a]nalysis of impacts of CAB at PCMS assumed the use of all PCMS maneuver areas in support of CAB training. There is no anticipated differential use of PCMS training areas to support aviation training." *Id.* at 4-22. In other words, any lands at the PCMS that are open to mechanized maneuver training are also available for Heavy CAB training.

The Fort Carson GTA EIS was mostly focused on analysis of the stationing of an additional IBCT at Fort Carson – an additional 3,900 soldiers - and only secondarily to the analysis of the CAB, which at that time was purely speculative. To put this into context, the PCMS Transformation EIS purported to analyze the impacts of training 23,000 soldiers at the PCMS instead of only 14,500 soldiers – an increase of 8,500 soldiers. Subsequently, the Fort Carson GTA EIS first purported to analyze the impacts of training 29,000 soldiers at the PCMS instead of only 25,100 soldiers due to the stationing of a new IBCT and concluded that live fire exercises would increase by 20%.[24] Finally, the Fort Carson GTA then purported to analyze the impacts of training 31,800 soldiers instead of 29,000 soldiers due to stationing of the Heavy CAB, and concluded that there would be an additional 6.5% increase in live fire exercises.

In reality of course, the training of 23,000 soldiers at the PCMS was never approved because a federal court invalidated the PCMS Transformation EIS and vacated the PCMS Transformation ROD. The Army subsequently tried to fix the flaws in the environmental analysis used in the PCMS Transformation EIS by issuing the PCMS Transformation EA in January 2011, but after N1MA! submitted comments pointing out that this analysis was also flawed,[25] the Army has apparently shelved the Transformation EA without issuing any decision at all. The Army also decided not to stand up the new IBCT that was authorized as part of the Fort Carson GTA EIS and ROD. However, the fact remains that as of today 25,000 troops are assigned to Fort Carson instead of 14,500, and that number is expected to rise to nearly 30,000 troops as shown on the Army's graph below:

---

[24] It is unclear how the Army justified the leap from analyzing 23,000 soldiers in the Fort Carson and PCMS Transformation EISs to using 25,100 soldiers at the baseline condition for the no action alternative in the Fort Carson GTA EIS. However, it does appear that now roughly 25,000 soldiers are stationed at Fort Carson.

[25] N1MA's comment letter on the Draft PCMS Transformation EA is attached hereto as Exhibit 63.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 44 of 123

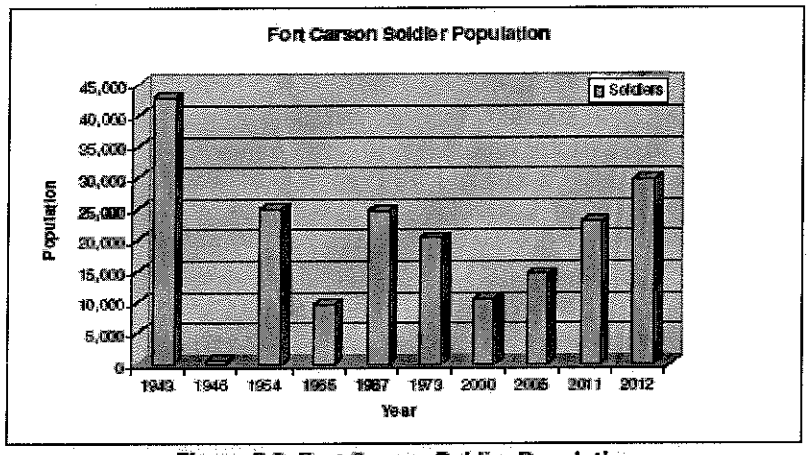


Figure 5-2 Fort Carson Soldier Population

Exhibit 8 at 5-6. It appears very clear that the Army intends to send all of these troops to the PCMS for training.

To make this easier to understand, the following presents a summary of the preceding information:

* PCMS Transformation EIS - analyzed increase from 14,500 to 23,000 soldiers, including unspecified increase in live fire activity – concluded that there would be no significant impacts – EIS and ROD vacated by Federal Court

* Fort Carson GTA EIS – analyzed increase from 25,100 soldiers to 29,000 soldiers due to new IBCT – concluded that there would be a 20% increase in live fire training, but no significant impacts – expressly based on PCMS Transformation EIS analysis – Army later withdrew proposal to stand up additional IBCT

* Fort Carson GTA EIS – analyzed increase from 29,000 soldiers to 31,800 soldiers due to CAB – concluded that there would be 6.5% increase in live fire training, but no significant impacts – expressly based on PCMS Transformation EIS analysis

* Draft CAB EA – simply re-states that training a CAB at the PCMS will cause a 6.5% increase in live fire training without mentioning that no increased training has been authorized at the PCMS due to vacation of PCMS Transformation ROD

In light of everything that has happened since the PCMS Transformation ROD was vacated, it is unclear how the Army can still conclude that there will be a 6.5% increase in live fire training associated with the CAB. In order to meet its obligations under NEPA, the Army

should explain what it is using for the baseline level of live fire training so that the public has a better chance of understanding the impacts of a 6.5% increase over that baseline amount. The 6.5% statistic has been picked up and reported by the press and presents a misleading picture of the actual increase in training use that is designed to deceive the public into thinking that the increased impacts will not be significant.

B. The Maneuver Impact Miles Methodology Used by The Army Is Scientifically Questionable and Improper

The Proposed Action would increase the aggregate number of Maneuver Impact Miles ("MIMs") by approximately 6.5 percent. Exhibit 16 at 2-9. According to the Draft CAB EA, "[t]hese 6.5 percent increases mirror the CAB-related live fire and MIMs training identified in the 2009 Fort Carson Grow the Army FEIS preferred alternative (the current proposed action), Section 2.2.4, which are part of the proposed action selected, as recorded in the 2009 Fort Carson Grow the Army ROD." *Id.* This is the only place in the Draft CAB EA where the 6.5% figure is recited or MIMs are referenced.

These metrics are meaningless because they correspond to a baseline that was found by a federal court to be arbitrary and capricious and there is absolutely no explanation of how this figure was derived or what calculations it is based on. The concept of "Maneuver Impact Miles" was not discussed at all in the draft or final PCMS Transformation EIS. It does not appear that the Army was using the MIMs concept as a tool for evaluating environmental impacts at that time. In fact, the MIMs metric does not appear to have ever been previously relied upon by the Army in connection with the PCMS, nor was the scientific basis for the calculation explained anywhere in the Fort Carson GTA EIS. Notably, the PCMS Transformation EA does not mention anything about MIMs in its 47 pages either.

The Army first mentioned the MIMs model in the Draft GTA PEIS:

> The Army uses a standardized methodology for comparing maneuver impacts of different units. This methodology takes the weights and authorized yearly mileages for unit vehicles and converts them to a unit of measure called the Maneuver Impact Mile (MIM). The MIM is a unit of measure that the Army uses to anticipate maneuver damage and required repair costs for its training areas. To calculate MIMs, the Army converts all unit vehicles into the equivalent of M1 Abrams tanks. The Army applies different physical characteristics of unit vehicles (weight, tire/track pressure etc.) to make the conversion to M1 tank mile equivalents. The Stryker BCT must execute 104,898 tank mile equivalents of maneuver training to carry out its doctrinal maneuver requirements. In comparison the IBCT executes 49,576 MIMs to execute its doctrinal training tasks and the HBCT utilizes approximately 130,089 MIMs to execute its annual doctrinal training requirements.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 46 of 123

Exhibit 3 at 33. According to the GTA PEIS, Table 2-3 below "generically summarizes the anticipated intensities and impacts of BCT training":

1 **Table 2-3 Summary of Projected Intensities and Impacts of BCT Training**

Training Type	Heavy BCT	Stryker BCT	Infantry BCT
Dismounted Maneuver	Low	Medium	Medium
Wheel On-Road Maneuver	Medium	High	Medium
Wheel Off-Road Maneuver	Medium	High	Medium
Track On-Road Maneuver	High	None	None
Track Off-Road Maneuver	High	None	None
Prepare Fighting Positions (DIG)	High	Medium	Medium
Logistics Bases	High	Medium	Medium
Air Operations	Low	Medium	High

2

Id. at 34.

Even though the PCMS Transformation EIS purported to analyze the biggest single increase in training at the PCMS in thirty years – due to both the increase in numbers of soldiers at Fort Carson, the increase in training requirements under Transformation, and new integrated weapons systems – there is no mention of the MIMs methodology in that document. Thus, it appears that Fort Carson did not employ the analysis or attempt to assign any "percentage" increase in MIMs or environmental impacts associated with the increased training associated with 23,000 soldiers instead of 14,500 soldiers.

MIMs were mentioned in just three places in the 914-page Draft Fort Carson GTA EIS. Exhibit 7. The Draft Fort Carson GTA EIS is the first NEPA analysis that reports that the frequency of maneuver training activities would increase between 20% and 25% due to stationing of the IBCT and CAB. Exhibit 7 at 2-13. Then, the Army states that [i]mplementation of maneuver training as part of the Proposed Action would result in an approximate 15 percent increase in the aggregate number of Maneuver Impact Miles (MIMs) at Fort Carson." *Id.* The Draft Fort Carson GTA EIS concludes that "[t]he stationing of the IBCT and other support units would result in an approximate 9-percent increase in relative MIMs and the CAB would result in an additional 6.5-percent increase." *Id.* Later, the Draft Fort Carson GTA EIS simply repeats the assertion that the Proposed Action will generate a 15% increase in MIMs with the same percentages assigned to the IBCT and the CAB. *Id.* at 3-74 to 3-75. In addition, the Draft Fort Carson GTA EIS states:

> Increased frequency of use of PCMS by the IBCT for maneuvers would result in greater ground surface disturbance and in an increase in the loss of vegetative cover. MIMs calculations estimate an 8.6% increase in soil surface and vegetative disturbance impacts.

Id. at 4-41. The only other specific mention of MIMs in the Draft Fort Carson GTA EIS is the statement that the "Army would adaptively manage maneuver training activities, but

implementation of the Proposed Action could result in an approximate 15 percent increase in projected MIMs at Fort Carson." *Id.* at 5-23.

In comments on the Draft Fort Carson GTA EIS, N1MA! stated that it appeared that the MIMs "calculations" were actually just a "rule of thumb" statistic that the Army used in evaluating the increased impacts of the Proposed Action. Exhibit 61 at 29-30. According to the Draft Fort Carson GTA EIS:

> As a general guideline to projected impacts, the addition of one IBCT would increase overall quantifiable training impacts to land-based natural resources by approximately 9%, considering the type of unit and number of soldiers involved, while the CAB would add approximately 6%.

Exhibit 7 at 4-76. N1MA! noted that the Draft Fort Carson GTA EIS did not explain any scientific method used to determine an exact percentage that describes the "overall quantifiable training impacts to land-based natural resources." N1MA! questioned these general guidelines in its comment letter, and suggested that using a "general guideline" to substitute for a detailed and searching analysis of individual potential environmental impacts violates the spirit and letter of NEPA because it deceives the public into assuming that the Army has accurately disclosed the potential environmental impacts of the Proposed Action. Exhibit 61 at 30.

Indeed, the Fort Carson GTA EIS itself recognizes that "[m]aximum use of training lands was assumed in the 2007 PCMS Transformation FEIS," based on assumed use 24 hours per day, 7 days per week, 365 days per year. Exhibit 8 at 4-70. Fort Carson apparently took this "worst case scenario" approach in order to justify unlimited training at the site. But if such unlimited use defined the "baseline" for the Fort Carson GTA EIS, it is not possible to make sense of the claim that the MIMs will be "6.5%" greater due to the stationing of a CAB, or that soil surface and vegetation disturbance impacts will increase by 8.6%. For instance, the Fort Carson GTA EIS concludes:

> When assessing this action in connection with maneuver and construction activities of the 2007 PCMS Transformation EIS, it is predicted that there would be increased surface disturbance of soil, removal of vegetation, soil compacting and rutting, reduced infiltration, and indirect effects of increased potential for fire and lost vegetative cover.

Id. at 5-28. If the no action alternative is already predicated on a study that assumed unlimited military training use of the PCMS, how is it possible that the impacts could ever be greater than unlimited, irreparable environmental, cultural, and socio-economic damage?

As explained above in connection with the Army's claim that live fire activities will increase by 6.5% due to stationing of the CAB, the claim that there will be a 6.5% increase in MIMs is only meaningful if it can be compared to the existing number of MIMs at the PCMS.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 48 of 123

The baseline level of MIMs at PCMS should be the number of MIMs as determined before the assignment of 8,500 soldiers to Fort Carson as studied in the PCMS Transformation EIS (for 14,500 soldiers). The Army has no valid EIS covering PCMS training for its current force structure, which is radically different than what was contemplated at the time the property was acquired back in the 1980s. The addition of 2,800 soldiers to a base that had 29,000 soldiers would represent a 10% increase in population, but adding 2,700 soldiers to 14,500 soldiers is an increase of 18.6% in total troop strength. Use of the MIMs methodology is flawed because the Army is not using a valid baseline of use for the model.

The central problem here is that the Army has never conducted a fair and honest assessment of the potential impacts of Transformation training at the PCMS for all of the new troops stationed at Fort Carson. In the Fort Carson GTA EIS's cumulative impacts analysis, the Army concludes:

> When the Proposed Action is considered in connection with the increased training proposed in past, present, and reasonably foreseeable actions, the projected surface disturbance, compaction of soils, and loss of vegetative cover could approximately double in connection with proposed increases in maneuver activities.

Exhibit 8 at 5-29. The Fort Carson GTA EIS goes on to disclose that "[t]hese adverse cumulative impacts would be reduced through PCMS's adaptive training management, erosion control, and land rehabilitation programs including INRMP implementation, the ITAM and limited use programs, but these programs would not reduce impacts to below less than significant levels." *Id.* Insofar as the federal court found that the Army's initial analysis of impacts from the increased training associated with Transformation was fatally flawed, the Army cannot rationally continue to tier its analysis of impacts from even more troops to that invalidated analysis.

In response to N1MA!'s comments challenging the MIM analysis as used in the Fort Carson GTA EIS, the Army stated as follows:

> The Army, in collaboration with scientists from the Natural Resource Conservation Service (NRCS), the Construction and Engineering Research Laboratory, and US Army Environmental Command, developed the Maneuver Impact Mile (MIM) methodology in 1999 and have continued to refine this approach to reflect the best observational and scientific data available. A detailed description of the MIMs methodology is provided in *Integrating Multi-criteria Analysis and GIS for Land Condition Assessment: Part I- Evaluation and Restoration of Military Training Areas* (Mendoza et al. 2002). The MIMs methodology is a scientifically based methodology that has been uniquely developed for the Army to

> understand the increases in training load that will occur in association with unit stationing.
>
> The methodology incorporates the number of vehicles, vehicle weights, ground contact pressures, operational training requirements and other factors to best capture the training load associated with an Army unit and its vehicle fleet. This methodology allows for a comparative analysis of Army training loads and allows for an assessment of baseline training conditions compared to future projected training loads. The MIMs approach has been developed with the best scientific data and is used in conjunction with vegetation and soils monitoring programs to better understand and validate the installations assessment of predicted environmental impacts given the installations specific environmental conditions. (Reference No. 252)
>
> The use of the MIMs methodology is widely accepted across the Army and has been used in numerous documents since its development. The presentation of MIMs in this EIS is intended to provide the public with the ability to better understand the increase in maneuver training loads that will occur in conjunction with Proposed Army stationing actions.

Id. at I-229. While N1MA! appreciates this detailed explanation of the origins of the MIM methodology, the fact remains that this methodology was never discussed in the PCMS Transformation EIS. The document cited above in the response to N1MA!'s comments is not listed in the references section of the PCMS Transformation EIS. Indeed, the response above does not fairly respond to N1MA!'s comments, which specifically questioned how the Army could conclude that a CAB would cause an increase in environmental impacts of 6.5% at the PCMS after assuming unlimited training in the PCMS Transformation EIS. The response states that MIMs have been used "in numerous documents" but does not indicate whether MIM analysis was used in the PCMS Transformation EIS.

N1MA! hereby demands that the Army produce all data and calculations associated with the MIMs analysis described in the Draft CAB EA and the Fort Carson GTA EIS. Two scientific papers regarding the MIMs methodology that were published in the Journal of Geographic Information and Decision Analysis are attached hereto as Exhibits 137 and 138. According to the reference cited by the Army, the following equation is used to calculate MIMs:

$$MIM = \sum_{E=1}^{e}\left[\left(\sum_{V=1}^{v}\left(Number_V * Mileage_V * VSF_V * VOF_V * VCF_V\right)\right) * Duration_E * ESF_E * LCF_E\right] \quad (1)$$

where: *MIM* = normalized training load (maneuver impact miles)
E = event (dimensionless)
e = number of events (dimensionless)
V= vehicle type (dimensionless)
v = number of types of vehicles in event E (dimensionless)
Mileage = daily mileage for vehicle type V for event type E (miles)
Number = number of vehicles of type V (dimensionless)
VSF = vehicle severity factor for vehicle type V (dimensionless)
VOF = vehicle off-road factor for vehicle type V (dimensionless)
VCF = vehicle conversion factor for vehicle type V (dimensionless)
LCF = local condition factor for event E (dimensionless)
Duration = number of days for event type V (days)
ESF = event severity factor for event type V (dimensionless)

Exhibit 137 at 2. The article states that the MIMs concept derives from the Army Training and Testing Area Carrying Capacity methodology, which "consists of three main components: training load characterization, environmental characterization, and cost analysis." *Id.* According to the article, "[T]he environmental component characterizes land condition in terms of measures of land condition that include erosion, vegetative cover, and species composition." *Id.*

It is impossible to reconcile the idea that the Army had enough detailed information to run the MIMs model with its frequently repeated claim that there is no existing baseline data that is sufficient to allow a quantification of environmental impacts, which was roundly criticized by the District Court in its ruling striking down the PCMS Transformation EIS. The Draft CAB EA states:

> However, the "maximum flexibility" model has been rejected because that method did not adequately quantify actual foreseeable training and training impacts. The need for a more concrete estimate of anticipated training needs and the lack of objective, empirical data regarding the impact of any increase in mechanized maneuver training has resulted in the need to remain within previously established limits unless and until greater mechanized training needs, if any, can be distinctly quantified and environmental impacts can be reliably assessed. Should the Army later desire to propose to move beyond the historically established limits, then improved data collection in the near term will aid in any future NEPA analyses.

Exhibit 16 at 2-12 (emphasis added). The Fort Carson GTA EIS acknowledges that "[t]heoretically, the resulting training of these higher numbers of units and Soldiers could increase the adverse effects to soils, vegetation, wildlife, and cultural resources in the downrange areas." *Id.* at 5-26. However, the analysis is limited because, according to the Army, "empirical

data concerning effects is exceedingly difficult to produce in light of the considerable influence of unpredictable and uncontrollable variables such as weather and deployments of units." *Id.* Moreover, the Fort Carson GTA EIS also continued to rely upon the very same "mitigation" measures - .i.e. the Army's existing land and environmental management programs[26] – that were described in the PCMS Transformation EIS, even though the District Court has already determined that it is "arbitrary and capricious" for the Army to rely on these programs for the purpose of concluding that impacts would be "insignificant." The Fort Carson GTA EIS acknowledges that:

> In the past, PCMS has been broken down into different management areas to support training (i.e., mounted, dismounted, live-fire, surface excavation). Use of training areas has been scheduled and rotated to promote maximum sustainability of the training landscape while minimizing environmental impacts. This rest/recovery scheduling rotation has been implemented to achieve land sustainability while meeting the training requirements of Fort Carson's units.

Id. at 4-27. Now, the Army concedes that "the ITAM program does not set specific ratios for land rest to sustain training lands," even though this approach was validated in the original PCMS Acquisition EIS. *Id.* at 2-11 to 2-12. As the Fort Carson GTA EIS explains:

> With the implementation of BRAC 2005, GDPR, and AMF, and substantial increase in training requirements that accompanied these actions, installation managers are projected to have limited options in managing maneuver and live fire training activities at PCMS.

Id. at 4-29. If the Army lacks objective, empirical data regarding increased impacts of training, how then can it reach the hyper-specific conclusion that soil surface and vegetation disturbance impacts will increase by 8.6%?

It appears that the type of information required to run the MIMs model is similar to the type of information that is collected pursuant to the Army's Land Condition Trend Analysis ("LCTA") program. As discussed elsewhere in this letter, LCTA data collected from 1989 to 1999 was reported in a USGS report published in 2008, which found that between 4% and 26.6% of the PCMS was disturbed by training annually. Exhibit 19 at 29. According to the USGS report:

> In the LCTA sampling the diversity and the percent composition of plant communities were catalogued. Also, the condition of other natural resources was documented. Uniform and repeated data

---

[26] *See, id.* at 2-11 (the ITAM program), 4-24 (BMPS, INRMP, Fugitive Dust Control Plan, MDC Program, Section 404 Regional Permit).

> collection provides military land managers with a standardized strategy of monitoring the effectiveness of management activities when compared to a base year. The LCTA data also guide other ITAM operations, such as land revegetation, implementation of runoff and soil-erosion control methods, and development of decision support methods for scheduling military training and reclamation.

Id. Metrics reported based on the LCTA model include "Land Disturbance," "Ground Cover Measures," "Bare Ground Measurements," and "an erodibility status metric." Id. at 29-35. However, actual LCTA data were only reported for the years 1989-1992, 1994 and 1999, suggesting that Army personnel have implemented the LCTA program on an intermittent basis. *Id.* Indeed, the PCMS Transformation EIS briefly mentioned the LCTA program in connection with the report, "Adding Modern Soil Erosion Prediction and Rangeland Health Assessment to the Land Condition Trend Analysis Program at Fort Carson and Pinon Canyon," which evaluated soil erosion on training areas and the influences of land use and management practices on training areas at the PCMS. Exhibit 2 at 3-28. According to the PCMS Transformation EIS:

> In the study, the USDA recommended using the [LCTA] model in soil protection planning and the design evaluation on the PCMS to evaluate revegetation design on sloped sites, training areas, and rest rotations (USDA, 2001a). The model has not been used on the PCMS since the initial studies were conducted by the USDA in 1999 because of the intensive field effort that would be required to collect data (Goss, 2006b).

Id. (emphasis supplied). This statement directly conflicts with statements in the PCMS Transformation EA, which suggests that the LCTA program is currently being implemented by Fort Carson. Exhibit 12 at 30-31.

The absurdity of the Army's approach to environmental analysis lies in the belief that the agency can account for all environmental impacts simply by assigning one numeric statistic across the board in lieu of undertaking the rigorous review and public disclosure that NEPA requires. Will implementation of the CAB stationing decision cause across the board 6.5% increases in wildlife mortality, vegetation cover, and air emissions? How does the increase in MIMs and environmental impacts compare to the carrying capacity and land capacity thresholds for the PCMS, which should be part of the MIMs analysis? If the Army has determined that the carrying capacity or land capacity thresholds for the property has changed since 1980, where is that analysis? It is arbitrary and capricious for the Army to base its entire environmental analysis on a few hyper-specific statistics that are simply presented as conclusions a handful of times in passing in the relevant documents.

Clearly, the MIMs analysis is not based on generally accepted scientific principles – even a layperson can easily grasp that the number is simply intended as a substitute for analyzing each

category of impacts on its own. Moreover, the point of NEPA is that both the public and the agency officials will get an accurate picture of the environmental impacts that actions may cause so that there is at least the possibility that environmental considerations may influence decision making. By stating that the Proposed Action will only cause a 6.5% increase in MIMs, the Army is shamelessly deceiving the public into thinking that the impacts are not significant.

VI. There Are Objective Metrics That The Army Could Have Used to Analyze Impacts, But There Is No Mention of Them In Any NEPA Study Produced By Fort Carson Since 2006

As discussed above, the number of troops that are assigned to Fort Carson, who would presumably use the PCMS for training exercises, is clearly one metric that can be analyzed in an environmental study. However, there are many other metrics that can also be used in conjunction with that information to provide the public with an honest picture of the potential impacts that will be caused by an increase in training. Another possible metric is the number of tracked vehicles, wheeled vehicles, and UASs assigned to Fort Carson. The PCMS Transformation EIS reports that as of 2006 "Fort Carson supports approximately 650 tracked vehicles, 1,800 wheeled vehicles, 85 helicopters, eight Tactical Unmanned Aerial Systems (TUASs), 48 Small Unmanned Aerial Systems (SUASs)." Exhibit 2 at 2-9. As of 2012, there are at least 1,082 tracked vehicles, 3,630 wheeled vehicles and sixteen TUASs assigned to Fort Carson. Without considering units other than the 4 BCTs, Fort Carson will be home to double the number of wheeled vehicles and 50% more tracked vehicles compared to prior to Transformation.

In the 1980 EIS, the Army used the concepts of "carrying capacity" and "vehicle days" as a means for comparing the impacts of training at varying intensity levels. The Increased Use Scenario, which was the alternative adopted by the Army, limited use to 50,207 vehicle days per year. Exhibit 17 at 2-39. For each exercise, this metric was further divided into maximum vehicle days for tracked vehicles (8,640) and wheeled vehicles (16,520). *Id.* There is no discussion about vehicle days in any subsequent environmental study produced by the Army. We do not know whether historic use was consistent with the limits specified. We do not know if the Army kept track of vehicle day records or made any attempt to use this information to better predict and prevent environmental impacts. Moreover, the 1980 EIS states unequivocally that no more than 507 vehicles at one time would be engaged in training at the PCMS. *Id.* at 1-6 to 1-7. However, according to the 1997 EA, a large rotation at that time lasted roughly three weeks at full maneuver strength and consisted of a mechanized infantry brigade plus support elements that can amount to 2,000 – 3,000 vehicles of all types. Exhibit 23 at 3.

Recall that the Army had this to say about "carrying capacity" in the 1980 EIS:

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 54 of 123

> Carrying capacities are practical bases for estimating the intensity of military training operations that can be imposed on a land area. The intensity of use, if within the carrying capacity, would reduce the risk of irreversible damage to soils and vegetation. The use of carrying capacity is combined with control of time of use, frequency of use, and the application of enhancement practices to protect the soil and vegetation resources of the parcel and to form the basis of the land use and management planning presented here.

Exhibit 17 at 2-13. The District Court read the 1980 EIS and its description of carrying capacity and vehicle days and based his decision in part on the fact that the PCMS Transformation EIS "does not include any comparable analysis." Exhibit 21 at 15-16. Fast forward to 2006-2012, and the concept of carrying capacity is nowhere to be found in any Fort Carson environmental document – not in the Fort Carson GTA EIS, the Programmatic CAB EIS, the Transformation EA, or the Draft CAB EA. Perhaps this is because if the Army were to monitor carrying capacity, the objective data collected would contradict the predetermined conclusion that military training causes "less than significant" environmental impacts.

Another metric that could be used to evaluate potential environmental impacts is the number of acres per year that are potentially subject to military training use. Although this information is not specifically analyzed in the Draft CAB EA or the other documents upon which it rests, the Army has reported relevant data in several places. According to the 1980 EIS, the maximum number of acres that could be used for training in any given year was limited to 131,064 acres. Exhibit 17 at 2-39 (Table 2.9). Moreover, only 82,531 acres would be used for any specific brigade-level training exercise. Exhibit 18 at A-2. These figures were derived at least in part by the Army's conclusion that it was vital to the health of the land to give the resource adequate time for rest and recovery.

Have the limits set forth in the 1980 EIS been observed by Fort Carson? Clearly not – in fact there has been an accelerating erosion of environmental protections that has now reached the point where almost all of the land at the PCMS is already used for military training. In 1990 Fort Carson authorized dismounted training exercises during the holiday and growing season deferment periods, ending the practice of allowing the land at least three months per year to rest and recover. Exhibit 22. In fact, according to the USGS, the practice of rest and recovery was only followed until 1997. Exhibit 19 at 5. In 1997 Fort Carson eliminated the growing season and holiday deferments altogether based upon an EA, and restructured the management units in order "to use a larger portion of the combined maneuver training area that was previously possible under the 1990 EA." Exhibit 23 at 5. The Army then introduced small arms, live fire ranges to the PCMS in 2004, followed the next year by an EA that justified creation of a live fire maneuver range on the PCMS. Exhibit 24 at 1-2. According to the 2005 EA, by that time the "[a]vailable mechanized maneuver area is 158,620 acres." *Id.* at 21.

The 2002 INRMP indicates that 169,052 acres – or 72% of training land at the PCMS – is "unrestricted maneuver land" that is available for mechanized training. Exhibit 64 at 83.

Another 53,926 were identified as areas where only dismounted training is allowed – those areas included soil protection areas, canyonlands and the hogback. Id. Only 10,731 acres – most of which are unsuited for military training - were identified as wildlife and buffer zones that are completely off limits. Id. When Fort Carson approved the 2007 INRMP, however, additional lands were opened to mechanized training maneuvers. According to the 2007 INRMP, which by its terms has expired, some 15,000 acres of land that were considered a "soil protection area" in 2002 have now "recovered." Exhibit 34 at 59. Therefore, now 184,557 acres - or 79% of the available training lands - 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. *Id.* at 58-59. Notably, the 2007 INRMP conflicts with the Transformation EA, which states that only 175,000 acres are available for mechanized training. Exhibit 12 at 7.

According to the 2002 INRMP:

> The ***Soil Protection Area*** (20,696 acres) is off-limits to mechanized military maneuver and has very limited administrative vehicular access due to fragile soils in this area.

Exhibit 64 at 74. Compare that statement with this one from the 2007 INRMP:

> Restricted Training Areas B and C were formerly the Soil Protection Area. The Soil Protection Area was off-limits to all training from 1983 until 1990 when it was open to dismounted-only training through 2004. However, since the area has recovered over the past 20 years, most of it was opened to mechanized military maneuver in 2005.

Exhibit 34 at 117. If this area has "recovered," where is the data supporting that conclusion? All of Fort Carson's NEPA documents have concluded that there is not sufficient baseline or monitoring data to evaluate potential environment impacts, yet apparently commanders have enough information to conclude that 15,000 acres are no ready for tank maneuvers. Opening up additional acreage to mechanized training seems sure to cause more significant impacts to the PCMS, and yet there is no indication that the Army performed any NEPA analysis before making the decision. As put succinctly in the 2002 and 2007 INRMPs, "[t]he end result of the rest/rotation/deferment program at the PCMS is that virtually all areas of the PCMS (except the Cantonment Area and the Wildlife Area/Safety Buffer along the canyon rim) are open to some types of training virtually all of the time." Exhibit 34 at 117; Exhibit 64 at 137. This is precisely the proposed action that the Army was attempting to approve via the PCMS Transformation EIS and ROD, which were struck down by the District Court. At a minimum, nowhere was the fact that over 15,000 additional acres at the PCMS have been opened to mechanized training disclosed or considered in the Draft CAB EA or its predecessors, the PCMS Transformation EIS, the Fort Carson GTA EIS, the CAB PEIS or the Draft Transformation EA.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 56 of 123

VII. No Mitigation Can Prevent or Minimize the Significant Environmental Impacts That Will Be Caused By Air-Ground Integration & CAB Training at the PCMS

NEPA was enacted by Congress to promote efforts that will prevent or eliminate damage to the human environment. 42 U.S.C. § 4321. Since 1981, the Council on Environmental Quality ("CEQ") has recognized that in some circumstances, a federal agency may rely on mitigation measures to reduce a proposed action's impacts to below the significance threshold, thus allowing preparation of a less rigorous EA in lieu of the normally required EIS. *See,* Question 40 of CEQ's 40 Most Asked Questions , 46 Fed. Reg. 18026 (March 23, 1981), as amended, 51 Fed. Reg. 15618 (April 25, 1986). However, CEQ explained that "[m]itigation measures may be relied upon to make a finding of no significant impact only if they are imposed by statute or regulation or submitted by an applicant or agency as part of the original proposal." *Id.* The CEQ concluded that "[a]s a general rule, the regulations contemplate that agencies should use a broad approach in defining significance and should not rely on the possibility of mitigation as an excuse to avoid the EIS requirement." *Id.* (emphasis supplied); *see also* 40 C.F.R. §§ 1508.8, 1508.27.

In its 1997 Study on NEPA's Effectiveness After Twenty-Five Years, the CEQ stated that:

> While mitigated FONSIs are a good way to integrate NEPA into planning, some Study participants felt that not all EAs resulting in mitigated FONSIs are meeting the spirit and intent of NEPA. When the EIS process is viewed as merely a compliance requirement rather than a tool to improve decision-making, mitigated FONSIs may be used simply to prevent the expense and time of the more in-depth analysis required by an EIS. The result is likely to be less rigorous scientific analysis, little or no public involvement, and consideration of fewer alternatives, all of which are at the very core of NEPA's strengths.

See, Exhibit 65 at 20. On January 14, 2011, the CEQ issued a Memorandum for Heads of Federal Departments and Agencies Regarding CEQ's Final Guidance for NEPA Mitigation and Monitoring ("CEQ Guidance"). Exhibit 66. While the Guidance recognizes the importance of mitigation measures to the NEPA process, the CEQ also cautioned that "[w]hen agencies do not document and, in important cases, monitor mitigation commitments to determine if the mitigation was implemented or effective, the use of mitigation may fail to advance NEPA's purpose of ensuring informed and transparent environmental decisionmaking." *Id.* at 2 (emphasis supplied). According to CEQ, such "[f]ailure to document and monitor mitigation may also undermine the integrity of the NEPA review." *Id.* The CEQ Guidance points out that "mitigation commitments should be carefully specified in terms of measurable performance standards or expected results, so as to establish clear performance expectations." *Id.* at 8.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 57 of 123

In order to ensure that mitigation measures identified in an EIS or EA are effective, the CEQ Guidance cautions that "[a]n agency should not commit to mitigation measures necessary for a mitigated FONSI if there are insufficient legal authorities, or it is not reasonable to foresee the availability of sufficient resources, to perform or ensure the performance of the mitigation." *Id.* at 6. In addition, the CEQ Guidance notes that "agencies should encourage public participation and accountability through proactive disclosure of, and provision of access to, agencies' mitigation commitments as well as mitigation monitoring reports and related documents." *Id.* at 4.

Army regulations implementing NEPA require that the agency analyze possible mitigation measures in defining the scope of the EIS, 32 C.F.R. § 651.34(g), in discussing alternatives to the proposed action, 32 C.F.R. § 651.34(d), and consequences of that action, 32 C.F.R. § 651.34(f), and in explaining its ultimate decision, 32 C.F.R. § 651.34(g). Federal courts have repeatedly held that an agency must develop, analyze in detail, and identify the likely environmental consequences of proposed mitigation measures. *See Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1151 (9th Cir. 1998) ("Without analytical detail to support the proposed mitigation measures, we are not persuaded that they amount to anything more than a 'mere listing' of good management practices"). Not only must the NEPA process explore, analyze, and disclose the effects of potential mitigation measures, but a decision to proceed with a project must not be based on arbitrary assumptions about their success:

> [W]here an agency's decision to proceed is based on unconsidered, irrational, or inadequately explained assumptions about the efficacy of mitigation measures, the decision must be set aside as "arbitrary and capricious."

Stein v. Barton, 740 F.Supp. 743, 754 (D. Alaska 1990) (where letters and reports of agency experts questioned effectiveness of mitigation measures in EIS, ROD overturned as arbitrary and capricious).

Although the CEQ Guidance includes portions of the Army's NEPA regulations in an appendix as an example for other agencies, in practice Fort Carson has failed to follow its own regulations in violation of the law. Starting with the PCMS Transformation EIS in 2006, Fort Carson has acknowledged that any increase in the frequency, duration and intensity of training exercises, and particularly any increase in mechanized training exercises, will cause substantial disturbance to soils, vegetation, wildlife habitat and cultural resources at the PCMS, especially in the maneuver training areas. Exhibit 2 at 3-114. The Army also claimed that:

> [E]nvironmental conditions would be monitored under the Proposed Action, evaluated, and considered if and as the level of training were increased. This process of monitoring and adaptive management feedback would continue to be governed by the ITAM program,

> document the level of impact that is occurring, and serve to establish the upper acceptable level of impacts that would be allowed to occur without precluding achievement of sustainable land management goals under the Army's ITAM program.

Id. at 3-69. Nonetheless, every one of the Army's environmental analyses since 2006 has concluded that those impacts would not rise to the level of "significant" for purposes of NEPA because the Army would continue to observe internal environmental policies, programs and regulations.

None of the Army's NEPA reviews adequately develops, analyzes in detail, or identifies the likely environmental consequences of the mitigation measures described in the document, in violation of NEPA. Rather, the Army provides generalized summaries of the mitigation measures that will be implemented without providing detail about the proposed measures or their efficacy. In general, the Army states that adverse environmental impacts from the Proposed Action can be avoided or minimized by: (a) consulting with the public and other agencies; (b) implementing existing internal management plans, programs, policies, and procedures and programs; (c) collecting additional data; (d) reducing energy consumption & reliance on fossil fuels; (e) implementing Best Management Practices; and (f) complying with all federal state, and local regulations.

In 2009, the District Court specifically held that the increase in use contemplated by the PCMS Transformation EIS "precludes any meaningful mitigation of the environmental impact of military operations." Exhibit 21 at 17. The Court found that "[t]he conclusion that significant environmental impacts of such unlimited use can be avoided through mitigation practices represents a clear error of judgment." *Id.* The Court determined that the Army's conclusion that "the continuation of existing land management and environmental programs would provide adequate means for sustainable land management" was "inconsistent and irreconcilable with the Army's analysis in April 2006." *Id.* Thus, the Court entered an order concluding that "the Army cannot rely on representations about the continuation of existing mitigation efforts to limit its impacts analysis or to limit the alternatives analysis as it did." *Id.*

Outrageously, the Army continues to rely on representations about the continuation of existing mitigation efforts to limit its impact analysis. The Draft CAB EA recites:

> [T]he Installation has an active environmental management program for both Fort Carson and PCMS that employs a full array of best management practices (BMPs) and environmental management programs to ensure environmental compliance, stewardship, and sustainability of those areas potentially impacted by CAB stationing implementation.
>
> . . . . . .

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 59 of 123

> The Installation would continue to implement all existing mitigation measures, BMPs, and environmental management programs to minimize the impacts of CAB stationing implementation.

Exhibit 16 at 3-4. The essence of most of the Army's mitigation measures continues to rest upon circular reasoning that significant impacts will be prevented or remedied because the Army's environmental programs and policies require them to be prevented or remedied.

Of course, the Draft CAB EA incorporates the analyses contained in the CAB PEIS, the Fort Carson Grow the Army EIS, and by extension, the PCMS Transformation EIS, all of which echo the same reasoning. According to the CAB PEIS, "[t]he Army will continue to implement sustainability principles in both its extant and future infrastructure and environment and with respect to actions that affect natural resources." Exhibit 14 at 4-12. The CAB PEIS notes that "Fort Carson employs the following primary mitigation processes throughout the installation (Fort Carson PCMS) to minimize current and future environmental impacts caused by Army actions: (1) implementation of *25 Year Sustainability Goals in 2002*, implementation of the Sustainability and Environmental Management System (SEMS); and (2) environmental impact analysis." *Id.* at 4-13. The various "mitigation measures" proposed as part of the Proposed Action are reproduced virtually verbatim in the CAB PEIS, the Fort Carson GTA EIS, and the Draft CAB EA. Page 6-1 – possible cite.

The environmental programs relied upon by the Army have been in place for varying lengths of time but have never been successful at preventing environmental damage at the PCMS.[27] If the available evidence supported the claim that Fort Carson has successfully implemented mitigation programs in the past, perhaps the promise to do so in the future would be more credible. However, experience has shown that Fort Carson's SEMS has been totally ineffective at preventing harm to the environment at the PMCS, as reflected in the available After Action Reports. Far from "continual improvement," Fort Carson's environmental programs have been all but abandoned by the Army after years of neglect. Neither is the Army's reliance on its "environmental impact analysis" programs persuasive; Fort Carson NEPA coordinators were in charge of the PCMS Transformation EIS, the adequacy of which was later rejected by the District Court as mentioned earlier. The vast majority of the proposed mitigation measures are non-specific and have no stated objective criteria or monitoring process that would allow the public or agency officials to judge their success. There are no provisions for

---

[27] Army Regulation 200-1 at PCMS since the regulation was issued by Headquarters, Department of The Army, Washington, D.C., on February 21, 1997. Department of Defense Directive ("DoDD") 3200.15 established policy and assigned responsibility under Title 10, United States Code for the sustainment of training and test ranges in January 2003. The Deputy Chief of Staff G-3 signed out the Army's Sustainable Range Program ("SRP") Plan as implementing guidance for DoDD 3200.15 in August 2003. The Army created Army Regulation 350-19, "The Army Sustainable Range Program," effective August 30, 2005.

accountability to the public and if this project is approved there is no way for the public to prevent the Army from making "back door revisions" that would expand training area and frequency of use beyond the current proposal. As the District Court recognized, generic, self-serving promises to protect the environment do not constitute adequate mitigation for the scope of impacts associated with the Army's plans for increased training at the PCMS.

After Action Reports

On its face, the requirement for After Action Reports appears to be just the sort of objective environmental monitoring policy that should lead to a successful mitigation program. In theory, after each training exercise the Army's environmental managers would evaluate any resulting impacts for the purpose of determining whether existing systems are working. From 1985 until 2002 the AARs went a long way toward serving their intended purpose: Fort Carson dutifully produced a report following each exercise that detailed extensive damage to the environment caused by mechanized maneuvers. Exhibit 20. These AARs provide a detailed historic record of impacts that should have been used to guide current planning efforts. From 1985 to 2002, the Army reported in every AAR that:

> The cumulative impacts to the resources of the PCMS will continue to be evaluated and potentially mitigated with each future training rotation. If we can eliminate the continuance of unnecessary resource impacts which are totally destructive in nature, then this management program should prove scientifically and functionally satisfactory."

Id. at 0019443 & 0019757-58 (emphasis added).[28]

Unfortunately, the Army has apparently ceased using AARs as a tool for ensuring compliance with its environmental programs and policies. The following circumstances support this position:

* The AARs have never been made available to the public as a matter of course. In December 2006 N1MA! requested all AARs, but none were produced until after the filing of a lawsuit against the Army under the Freedom of Information Act.

* The Army has repeatedly refused to consider any of the information contained in the AARs as part of environmental analysis of changes to training intensity, methods and equipment. The District Court explicitly criticized the Army for failing to do so. Exhibit 21 at 16-17. As recently as January 2011, Fort Carson has again claimed that the AARs

[28] Insofar as the pages of the AARs were not originally numbered sequentially, citations to the AAR exhibit will be to the bates-stamp number that appears in the bottom, right-hand corner.

do not contain "data necessary to establish a basis for reliably extrapolating damages that might be caused by the increasing training." Exhibit 12 at 21. Given that the Army has specifically rejected information in past AARs, what assurance is there that the Army will consider or disclose information in future AARs?

* Despite repeated requests, to date N1MA! has only been provided with one AAR that was produced by Fort Carson after 2002. This AAR – which was prepared following the Army's Warhorse Rampage exercise during the summer of 2010 and was produced by the Fort Carson Cultural Resources Management Program – follows a very different format. Exhibit 58. Earlier AARs described impacts to cultural resources as well as other parts of the affected environment: air quality, water quality, vegetation, wildlife, etc. Upon information and belief Fort Carson and other military units are regularly using the PCMS for training. Therefore, the only reasonable conclusion is that either Fort Carson has stopped preparing AARs to environmental impacts or that the Army is concealing those reports from the public. In either case, it would appear that the Army does not want reports detailing damage to be used against it.

If prepared diligently and objectively, AARs could be an effective tool for ensuring that mitigation commitments are implemented and the resource is protected. NEPA requires all federal agencies to make information useful for restoring, maintaining, and enhancing the quality of the environment available to States, counties, municipalities, institutions, and individuals," including "information on mitigation and mitigation monitoring." 42 U.S.C. § 4332(2)(G). The CEQ Guidance encourages agencies "as a matter of transparency and accountability, to consider including public involvement components in their mitigation monitoring programs." Exhibit 66 at 13. Indeed, the CEQ Guidance observes that:

> [A]gencies are encouraged to make proactive, discretionary release of mitigation monitoring reports and other supporting documents, and to make responses to public inquiries regarding mitigation monitoring readily available to the public through online or print media. This recommendation is consistent with the President's Memorandum on Transparency and Open Government[29] directing agencies to take affirmative steps to make information public without waiting for specific requests for information. The Open Government Directive,[30] issued by the Office of Management and Budget in accordance with the President's

[29] Presidential Memorandum for Heads of Executive Departments and Agencies Concerning the Freedom of Information Act, 74 Fed. Reg. 4,683 (Jan. 21, 2009).

[30] Office of Mgmt. & Budget, Executive Office of the President, "Open Government Directive" (Dec. 8, 2009), available at www.whitehouse.gov/open/documents/open-government-directive.

> Memorandum, further directs agencies to use their web sites and information technology capabilities to disseminate, to the maximum extent practicable, useful information under FOIA, so as to promote transparency and accountability.

Id. at 14. Tellingly, there are no mitigation measures proposed by the Army in the Draft CAB EA that involve proactively making AARs available to the public on-line or otherwise providing any information about environmental impacts to anyone outside the military. With no public involvement in the monitoring program, the Army can disregard the public interest with impunity.

The Sikes Act

Under the Natural Resource Management on Military Lands Act of 1960, commonly known as the Sikes Act, as amended according to the Sikes Act Improvement Act of 1997, the Secretary of Defense must carry out a program to provide for the conservation and rehabilitation of natural resources on military installations. 16 U.S.C. § 670a(a)(B) *et seq*. To facilitate the program, each military department must prepare and implement an INRMP and ICRMP for each installation in the United States. The purpose of the INRMP is to guide natural resources management programs, while ensuring the sustainability of desired military training area conditions and maintaining ecosystem viability. In addition, INRMPs were intended to ensure that natural resources conservation measures and Army activities are consistent with federal stewardship requirements.

Each INRMP prepared under subsection (a) of the Sikes Act must provide for the following:

(1) Fish and wildlife management, land management, forest management, and fish and wildlife-oriented recreation.
(2) Fish and wildlife habitat enhancement or modifications.
(3) Wetland protection, enhancement, and restoration, where necessary for support of fish, wildlife, or plants.
(4) Integration of and consistency among the various activities conducted under the plan.
(5) Establishment of specific natural resource management goals and objectives and time frames for proposed action.
(6) Sustainable use by the public of natural resources to the extent that the use is not inconsistent with the needs of fish and wildlife resources.
(7) Public access to the military installation that is necessary or appropriate for the use described above, subject to requirements necessary to ensure safety and military security.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 63 of 123

(8) Enforcement of applicable natural resource laws (including regulations).
(9) No net loss in the capability of military installation lands to support the military mission of the installation.
(10) Such other activities as the Secretary of the military department determines appropriate.

16 U.S.C. § 670a(b)(1). Under the Sikes Act, priority for contracts involving implementation of an INRMP shall be given "to state and federal agencies having responsibility for conservation of fish or wildlife." 16 U.S.C. § 670a(d)(2). Installation INRMPs and ICRMPs are to be reviewed annually and revised as necessary, but major revisions are to be completed at least every five years. 16 U.S.C. § 670a(b)(2). Fort Carson's current ICRMP was apparently authorized in 2002, with a stated effective date range of 2002-2006, and is therefore dangerously out of date. Exhibit 67. In accordance with the Sikes Act Improvement Act of 1997, INRMPs are prepared in cooperation with federal and state fish and wildlife management agencies, and the public must have an opportunity to comment on plans before they are finalized. The current INRMP was issued in 2007 with a stated effective date range of 2007-2011 and has therefore expired as well. Exhibit 34. Even though N1MA! has been actively involved in a watchdog role regarding PCMS since 2006, the Army has never provided any opportunity for the public to comment on its INRMP or ICRMP.

Fort Carson's failure to meet its Sikes Act obligation to prepare new INRMPs and ICRMPs every five years is troubling. It is improper to approve any increased training at the PCMS before a new five-year INRMP is adopted pursuant to the Sikes Act, with the requisite opportunity for public participation, and while it is unclear who is responsible for environmental protection at the PCMS in light of Fort Carson's termination of DECAM and the USFWS as discussed below. The Army Regulation implementing NEPA, 32 CFR § 651.33, and CEQ's regulations, 40 C.F.R. Parts 1500-1508, recommend that an EA be completed for natural resources management plans. However, on May 25, 2006 the Assistant Chief of Staff for Installation Management issued "Guidance for Implementation for Sikes Act Improvement Act," which concludes that additional NEPA analysis is not necessary "if only limited revisions are made to an existing INRMP." *See,* Exhibit 34 at 2. N1MA! submits that opening more than 15,000 of the acres of the PCMS to mechanized maneuver training does not quality as a "limited revision" to the Fort Carson INRMP.

The Army has an 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. When describing its environmental programs and policies, the Army's Transformation PEIS states that "[i]n the spirit of the Sikes Act, these initiatives would also be intended to make the Army a 'good neighbor' and a 'joint steward' with local communities, land users, and land managers." Exhibit 35 at 4-36. Needless to say, the Army has not been a good neighbor to or a joint steward of the PCMS with the surrounding community.

Moreover, the 2007 INRMP refers to numerous agency partnerships and mitigation programs that no longer exist. Pursuant to the Sikes Act, the Army is required to consult and cooperate with other federal and state agencies that have stewardship responsibilities with respect to lands and wildlife. DECAM, USFWS and CDOW entered into a Cooperative Plan for Conservation of Natural Resources on Fort Carson and the Pinon Canyon Maneuver Site, Colorado" in 2000. Exhibit 68. DECAM and USFWS then entered into a new Cooperative Agreement in 2007. Exhibit 69. The 2007 Cooperative Agreement states that its period of performance is from May 1, 2007 through September 30, 2012. *Id.* at 5, 9. In 2007 the USFWS, Fort Carson and DECAM also entered into a Wildland Fire Management Memorandum of Understanding. Exhibit 70. As recently as 2009 the USFWS and Fort Carson (acting through DECAM) had entered into a number of other additional agreements regarding protection and management of environmental and cultural resources at the PCMS. Exhibit 71.

The INRMP explains the critical role of the UFSWS 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.

Exhibit 34 at 27. However, 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 will not expire until September 30, 2012.[31] Exhibit 72. Although the Garrison Commander stated that the "success" of Fort Carson's environmental management of the PCMS was "due in large part to the expertise of your agency's personnel in their areas and the many years of dedicated services and support provided by your staff at Fort Carson," he nonetheless goes on to inform the USFWS that "reduced FY11 funding

---

[31] The Garrison Commander's letter terminating the Cooperative Agreement incorrectly states that the agreement expires on September 30, 2010. *See,* Exhibit 72.

and expanded personnel authorizations make it in Fort Carson's interests not to extend our current agreement." *Id.* Ironically, Fort Carson's decision to terminate its Cooperative Agreement came just months before the environmentally disastrous Warhorse Rampage training exercise.

For many years, DECAM secured DOD funding for full-time USFWS personnel who were hired for the purpose of environmental stewardship of Fort Carson and PCMS. The USFWS is required to submit annual reports to Congress detailing activities and expenditures pursuant to the Sikes Act. 16 U.S.C. § 670a(f)(2). For most of the past decade the USFWS praised its partnership with Fort Carson/Piñon Canyon, which began in 1982, as "the largest and one of the longest standing cooperatively funded agreements for the USFWS to conduct fish and wildlife management duties on a military installation in the United States." See, e.g., Exhibit 75 at 6. According to the Fiscal Year ("FY") 2004 Sikes Act Report:

> Through a cooperative funding agreement with the U.S. Army, USFWS biologists are stationed at Fort Carson, enabling the installation to more effectively and immediately address environmental conservation and compliance needs at the installation level. This cooperative agreement helps ensure that issues involving threatened and endangered species and other regulatory requirements are resolved as soon as they emerge. To facilitate effective natural resource management, Fort Carson and the USFWS employees stationed there have developed several collaborative initiatives involving multi-agency and multi-disciplinary professional teams. Because of the close working relationship with the USFWS, Fort Carson is on track to complete the tasks outlined in its INRMP and will enter the next cycle of INRMPs with new information and the enhanced ability to conserve and manage natural resources and train troops within the central shortgrass prairie (CSP) ecosystem.

Exhibit 76 at 6. The FY 2004 Sikes Act Report notes that "Fort Carson, the USFWS, and other partners developed the "CSP Ecoregional Assessment and Partnership Initiative" to address complex natural resource management issues associated with the important CSP ecosystem, which provides habitat for a variety of native species and several Federal and State listed species. *Id.* at 7. According to the Report, Fort Carson conducts research collaboratively with the USGS, universities, non-governmental organizations, and the public in order to document the response of natural resources to military training management techniques. *Id.*

Between FY 2003 and FY 2008 the DOD provided an average of nearly $1.5 million annually to the USFWS for conservation work at Fort Carson and PCMS, representing about 40% of all funds appropriated by DOD under the Sikes Act during that time. See, Exhibits 75-80. However, after Fort Carson terminated its cooperative agreement with USFWS, the funding implementation of the 2007 INRMP fell to zero, as shown in the following table:

Year	Total DOD Sikes Act Expenditures	Total Fort Carson/PCMS Expenditures	% of Total
FY2001	$4,193,100	$2,889,037[32]	69%
FY2002	$2,232,777	$1,437,803	64%
FY2003	$3,849,314	$1,156,661	30%
FY2004	$3,648,465	$1,351,565	37%
FY2005	$3,068,191	$1,181,155	38%
FY2006	$3,564,619	$1,671,712	47%
FY2007	$5,172,835	$1,784,347	35%
FY2008	$3,413,583	$1,713,420	50%
FY2009	$3,084,452	$2,045,649[33]	66%
FY2010	$ 848,091	$0	0%

Exhibits 73-82. The Army's termination of its cooperative agreement with the USFWS violates the Sikes Act and renders its environmental analysis, which expressly relies on implementation of the INRMP, arbitrary and capricious.

Land Condition and Trend Analysis Model

N1MA! recently learned that the Army's Integrated Training Area Management ("ITAM") program is charged with long-term annual "monitoring of the land condition" using a Land Condition and Trend Analysis ("LCTA") model. According to the 2011 Transformation

[32] The figures reported for FY 2001 & FY 2002 include funding for personnel at the Pueblo Chemical Depot in addition to Fort Carson/PCMS.

[33] The FY 2009 Sikes Act Report did not distinguish between funding for Fort Carson/PCMS and funding for other installations in the state of Colorado. However, it is believed that the vast majority of the funds were designated for Fort Carson/PCMS.

EA, there are 511 monitoring plots throughout Fort Carson and the PCMS. Exhibit 12 at 30. The Transformation EA describes the monitoring program thusly:

> A monitoring plot is a straight-line, point-to-point survey line that is 50 meters long. Data collection teams tie a string between two surveyed points and analyze everything between the two points, including each individual piece of vegetation (type, size, condition) and any damage from vehicle traffic, erosion, fire, wildlife, drought or disease. All data is entered into master data base that is utilized to calculate the Land Condition and Trend Analysis (LCTA) model. This data identifies the condition of the land, the impacts of military training on the land and the trends related to military training (gathering points, areas of sustained impact, areas that have a difficult time recovering from impacts). The LCTA data is briefed to the senior military commanders and training managers to assist in the planning of military training during the upcoming year and to assist in validation, funding and prioritization of suggested projects to rehabilitate, mitigate and prevent damages.

Id. The LCTA is a statistically based monitoring program that is designed to provide data regarding vegetation health, wildlife population dynamics and habitat composition. Exhibit 23 at 4. The 1997 EA reports that:

> Through the auspices of an Interagency Support Agreement, the US Geological Survey monitors streamflow for both quantity and quality. A network of air quality and noise quantity monitors is in place at PCMS. These monitors are read routinely prior to and during each training rotation. Cultural resource sites are monitored before, during, and after each rotation to assess overall condition and any resultant damage.

Id. at 4. Fort Carson notes that the LCTA data is useful in determining the best management practices for each individual training area, and that each year "the LCTA data is used to develop and update the Fort Carson LRAM work plan," a five-year plan that identifies various land rehabilitation projects with the primary emphasis on the upcoming fiscal year. Exhibit 12 at 30-31.

LCTA data collected from 1989 to 1999 was reported in a USGS report published in 2008, which found that between 4% and 26.6% of the PCMS was disturbed by training annually. Exhibit 19 at 29. However, actual data were only reported for the years 1989-1992, 1994 and 1999, suggesting that Army personnel have implemented the LCTA program on an intermittent basis. *Id.* The PCMS Transformation EIS briefly mentioned the LCTA program in connection with the report, "Adding Modern Soil Erosion Prediction and Rangeland Health Assessment to the Land Condition Trend Analysis Program at Fort Carson and Pinon Canyon," which evaluated

soil erosion on training areas and the influences of land use and management practices on training areas at the PCMS. Exhibit 2 at 3-28. According to the PCMS Transformation EIS:

> In the study, the USDA recommended using the [LCTA] model in soil protection planning and the design evaluation on the PCMS to evaluate revegetation design on sloped sites, training areas, and rest rotations (USDA, 2001a). The model has not been used on the PCMS since the initial studies were conducted by the USDA in 1999 because of the intensive field effort that would be required to collect data (Goss, 2006b).

Id. (emphasis supplied). It is unclear why all of the existing LCTA data has not been made available to the public – the LCTA was not mentioned in the Programmatic Grow The Army EIS, the Fort Carson Grow the Army EIS, the CAB PEIS, or the Draft CAB EA – or why the program was abandoned. Instead, the Army relied on the scientifically dubious Maneuver Impact Miles ("MIMs") analysis in the Fort Carson GTA EIS that misleads the public about potential impacts by reporting that there will be a 6.5% across the board increase for all impacts at both Fort Carson and the PCMS. The Army has never disclosed how this calculation was derived or what assumptions and variables were taken into account in the calculation. Moreover, the model used as its baseline the training levels that were authorized by the PCMS Transformation, which has been vacated by the District Court.

The 2011 PCMS Transformation EA claims that "because baseline data are not available for quantifying the extent (number of acres) and magnitude (severity) of training related impacts to vegetation and wildlife resources, it is not possible to quantitatively estimate impacts to habitat and wildlife population from implementation of the Proposed Action or what the magnitude or severity of those impacts would be compared to the no action alternative." Exhibit 12 at 21 (citing the PCMS Transformation EIS). The Transformation EA also states: "Baseline information on the *level* of environmental effects of the various kinds of increased training was not available. Thus, all that could be said, and may at this time be said, was that more training, especially more maneuver training, means, generally, more effects." *Id.* at 22 (emphasis in original).

As discussed above, the PCMS Transformation EIS never even acknowledged, much less analyzed, the environmental damage reported in the AARs. The PCMS Transformation EIS stated that "data directly relating to effects on the resources from past training activities at the PCMS are not available." Exhibit 2 at H-182. The Army also stated that "the quantitative relationship of training activities and impacts to resources is not known." *Id.* Similarly, the PCMS Transformation EA also dodges this issue, asserting that the "historic uses of the PCMS, as reflected at least in part by the AARs that have been compiled, do not provide the extent of data necessary to establish a basis for reliably extrapolating damages that might be caused by the increasing training under the Proposed Action. Exhibit 12 at 21.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 69 of 123

However, it appears that the LCTA model was designed to produce precisely the type of quantifiable data that the Army has been claiming for years does not exist. If the LCTA data does not exist, then the Army is not fulfilling its environmental management obligations as set forth in its ITAM program. If the LCTA data does exist, then the Army has concealed it from the public during a lengthy period of environmental review during which publicly the Army denies that such data exists. Either way the situation is deeply troubling.

Directorate of Environmental Compliance & Management

Fort Carson recently eliminated the DECAM, which was responsible for environmental management of the PCMS from 1985 until 2007 under the direction of civilian Tom Warren, Fort Carson's top environmental officer. Exhibit 83. The 2007 INRMP explains in detail the importance of DECAM to the agency's environmental stewardship efforts, yet there is no evidence that this function is currently being implemented by other Army staff.

The actual dismantling reportedly began in 2005 after the Army Headquarters issued a policy designed to separate primary responsibility for war fighting functions and installation management functions. Installations have always had to engage with higher headquarters to get approval and funding for their programs. When U.S. Army Forces Command ("FORSCOM") was calling the shots, environmental programs for PCMS were supported by Army Headquarters because they were proactively innovative and DECAM in particular had professional flexibility in allocating funds and establishing operational priorities. FORSCOM retained oversight authority for war fighting functions, but installation management authority was transferred to the predecessor of Army Installation Management Command ("IMCOM") in late 2002 or early 2003 following publication of a REC.

IMCOM subsequently published a Standard Garrison Organization Directive (following another REC) to establish a Common Level of Service. Between 2005 and 2007 Fort Carson environmental managers provided justification for an exception to the Standard Garrison Organization Directive based on the unique mission capabilities/requirements and support structure of DECAM. Those efforts, however, while then supported locally, were not accepted by IMCOM. DECAM officially ceased to exist by order of former Garrison Commander Eugene Smith during November 2007 and its functions transferred to the Department of Public Works. Now IMCOM micromanages environmental management under the premise of the Common Levels of Support Enterprise Management scheme in concert with Standard Garrison Organizations. The 2007 INRMP notes that the IMCOM West Region – located at Rock Island, Illinois – is now "responsible for providing command and technical guidance to the Fort Carson natural resource program." Exhibit 34 at 26. The INRMP notes that IMCOM West Region "will conduct an onsite evaluation of the Fort Carson natural resources program at least once every three years and will act as trustee over the overall natural resources program." *Id.* (emphasis added).

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 70 of 123

Fort Carson's 2007 INRMP explains that DECAM was the principal driver "in the formulation of policies and procedures related to the environment, energy, and natural resources." Exhibit 34 at 21. According to the INRMP, "[t]he organizational structure includes the DECAM Director, Deputy DECAM Director Program Operations Officer, and seven teams: Cooperative Conservation Team, Resource Sustainment Team, Environmental Operations Team, Environmental Compliance Team, Sustainability and Environmental Analysis Team, Business and Administrative Services Team, and Special Operations Team." *Id.* Mr. Warren had a great deal of responsibility under the INRMP:

> The DECAM Director maintains an organization with the resources available to accomplish the INRMP and, acting primarily through the Cooperative Conservation Team, is responsible for (Department of the Army 1995a):
>
> • developing and implementing programs to ensure the inventory, delineation, classification, and management of all applicable natural resources to include: wetlands, scenic areas, threatened and endangered species, sensitive and critical habitats, and other natural resource areas of special interest;
>
> • providing for the training of natural resources personnel;
>
> • implementing this INRMP;
>
> • enforcement of laws and regulations related to the environment and natural resources;
>
> • reviewing all environmental documents (*e.g.*, environmental impact assessments and statements and remedial action plans) and construction designs and proposals to ensure adequate protection of natural resources, ensuring that technical guidance as presented in this INRMP is adequately considered;
>
> • coordinating with local, state, and federal governmental and civilian conservation organizations relative to natural resources management for Fort Carson; and
>
> • managing all phases of the natural resources program for Fort Carson with appropriate natural resources management personnel.

Id. at 22. By contrast, the INRMP explains that the Directorate of Public Works is primarily responsible for "downrange road repair and maintenance, fire prevention/suppression, and grounds maintenance." *Id.* at 23. According to the INRMP, the DECAM "complements and

supports these missions by providing regulatory and technical guidance, developing and using water rights, reviewing and requesting permits, consulting with wildlife agencies, assisting with wildland firefighting and management, and maintaining downrange maneuver Training Areas." *Id.*

When the decision to eliminate DECAM was announced, the Army stated that a new, unnamed office would take over management of the PCMS and that Mr. Warren would oversee the new office as Deputy Garrison Commander. Exhibit 83. Apparently some of the Fort Carson staff responsible for environmental management, compliance, and cleanups may have been absorbed into the base's public works department, while other DECAM employees were to be transferred to the new office charged with managing PCMS. *Id.* Today, however, it is unclear whether Fort Carson ever established a new office responsible for protecting the environment at the PCMS. The Pueblo Chieftain reported on February 19, 2009 that Tom Warren had been removed from his position as manager of the PCMS and reassigned to other duties pending an administrative investigation. Exhibit 84.

In 2008 and 2009 DECAM issued two volumes of analysis of the environmental cultural resources at the PCMS titled "Heritage, Resources, and Stewardship." *See,* Exhibits 85 & 86. The first volume covers "People and their Cultures" and the second volume covers "The Land and its Resources." *Id.* The author of these documents, who has worked with DECAM at the USFWS for many years, made the following special dedication of the work to Mr. Warren:

> Finally, to the one constant throughout the history of PCMS.... Tom Warren has been there from almost the beginning. He has secured funding for and nurtured the research. He has actively sought opportunities for partnerships to improve understanding and management of PCMS resources. Tom has not tried to influence research results. He seeks science, regardless of the implications, as the means to sustaining the military mission. Tom Warren's unique brand of stewardship and support for the military mission for almost three decades has come to embody the manner in which PCMS is managed. Tom.... this report is evidence of and a testament to your spirit and dedication.

Exhibits 85 at ii and 86 at ii. These reference documents have never been made public or listed as sources in any of the multiple NEPA documents that the Army has prepared over the last five years.

It has also been reported that the Fort Carson budget for environmental management programs has been slashed during the past few years. According to the CEQ Guidance:

> CEQ views funding for implementation of mitigation commitments as critical to ensuring informed decisionmaking. For mitigation

> commitments that agencies will implement directly, CEQ recognizes that it may not be possible. To identify funds from future budgets; however, a commitment to seek funding is considered essential and if it is reasonably foreseeable that funding for implementation of mitigation may be unavailable at any time during the life of the project, the agency should disclose in the EA or EIS the possible lack of funding and assess the resultant environmental effects.

Exhibit 66 at 9. The 2007 INRMP indicates that the Army would need to provide at least $32,730,000 for environmental programs between 2007 and 2011 in order to meet its environmental objectives. Exhibit 34 at 3-4. The 2007 INRMP indicates that no fewer than 27 permanent full-time employees are required for its implementation. *Id.* at 240-241.

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 Draft CAB EA or its predecessors and indicate that DOD has eliminated all funding for INRMP implementation. However, Fort Carson has eliminated the civilian agency charged with implementing the INRMP and states repeatedly in the Draft CAB EA that Pentagon funding is uncertain. In fact, the Draft CAB EA 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." Exhibit 16 at 4.3-3.

If the Fort Carson budget is cut, how will the impact of those cuts be allocated among training programs and environmental management programs? Is the Army truly asking the public to believe that environmental budgets will be preserved at the expense of training? Although N1MA! does not have access to internal Fort Carson budget documents, it is believed that the government's five-year Program Objective Memorandum/Budget Formulation planning documents support this position. Concurrently, N1MA! understands that pursuant to current direction from IMCOM, installation positions are being cut in favor of remote IMCOM staff who are now charged with managing the installations.

Weakened Environmental Protections

In summary, the Army's reliance on its own environmental management policies and programs as mitigation sufficient to reduce environmental impacts to "less than significant" is arbitrary and capricious. The record shows that during the past thirty years the Army has purposefully weakened or eliminated multiple requirements designed to meet environmental objectives.

Training exercises were originally prohibited during the growing season from April 1 – June 1 annually, identified in the 1980 EIS as the "absolute minimum period required to afford any significant vegetative protection." Exhibit 17 at 2-38. In 1990, a decision was made to

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 73 of 123

allow dismounted training during the growing season. Exhibit 22 at 2-3. In 1997, the growing season and holiday deferment periods were eliminated altogether, opening the PCMS to year-round training activity despite vegetation and wildlife needs. Exhibit 23 at 5. Moreover, the lands at the PCMS are no longer set aside for two consecutive years of "rest and recovery" following every two years of use. The USGS reported in 2008 that the rest and recovery program at the PCMS ended in 1997. Exhibit 19 at 5. The 2002 and 2007 INRMPs confirm that "[t]he end result of the rest/rotation/deferment program at the PCMS is that virtually all areas of the PCMS (except the Cantonment Area and the Wildlife Area/Safety Buffer along the canyon rim) are open to some types of training virtually all of the time." Exhibit 34 at 117; Exhibit 64 at 137.

When the PCMS was originally acquired, the 1980 EIS concluded that no more than 131,064 acres should be open to mechanized training in a given year even under the "Increased Use Scenario." Exhibit 17 at 2-39 (Table 2.9). In 2004 the Army ended the ban on live fire training at the PCMS and allowed a small arms range, and then the following year approved a full scale live fire mechanized maneuver training range. Exhibit 24 at 1-2. Now the Proposed Action seeks a live fire increase of 6.5% over levels that were improperly examined in the PCMS Transformation EIS and never legally authorized. In 2005 the Army reported that 158,620 acres of land at the PCMS were open to mechanized maneuver training. *Id.* at 21. The 2007 INRMP opened an additional 15,505 acres of the PCMS to mechanized tank training. Exhibit 34 at 59 & 117. Currently 185,000 acres – or nearly 80% of the entire property - is available for the most destructive training activities, while less than 5% of the PCMS is off limits to training entirely. *Id.* at 58-59. More land is now open to mechanized maneuvers than at any point in the past.

"An agency action is arbitrary and capricious 'if the agency....entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or [if the decision] is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Utah Envtl. Congress,* 483 F.3d ___, 1134 (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co.,* 463 U.S. 29, 43 (1983)). The Army's conclusion that the Proposed Action may be approved and implemented without significant adverse impacts is arbitrary and capricious and contradicted by documented severe impacts from historic training and training that occurred as recently as 18 months ago. The Army has consistently failed to implement its written plans for protection of the environment and mitigation at the PCMS from 1985 to 2012 and it is not reasonable to foresee that the Army will ensure the performance of mitigation for increased training in the future. Experience has shown that training impacts to the PCMS are significant and Fort Carson cannot avoid its responsibilities under NEPA by simply declaring its commitment to environmental stewardship. The Draft CAB EA failed to disclose the devastating impacts and irreparable harm that will occur at the PCMS as a result of year-round training, increased training intensity, and new weapons systems. Therefore, the Draft CAB EA violates NEPA.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 74 of 123

VIII. The Draft CAB EA and Its Predecessors Fail To Make Any Attempt to Disclose, Quantify or Consider Cumulative Impacts Associated With Use of the PCMS By Non-Fort Carson Troops

The Draft CAB EA notes that the Army has now "rejected" the "maximum flexibility" model of training, "which would not have relied on any particularly specified time limits." Exhibit 16 at 2-11. Despite all of the Army's environmental policies and programs – including AARs and the LCTA model – Fort Carson has finally concluded that "the lack of objective, empirical data regarding the impact of any increase in mechanized maneuver training has resulted in the need to remain within previously established limits unless and until greater mechanized training needs, if any, can be distinctly quantified and environmental impacts can be reliably assessed." *Id.* Accordingly, the Draft CAB EA reports that "[t]raining by mechanized ground units at PCMS would not exceed a total of 4.7 months per year, a limit established in Fort Carson's 1980 Draft and Final Environmental Impact Statements for Training Land Acquisition," in order to provide over 7 months total per year of rest and recovery time for PCMS training lands." *Id.*

At this point, based on the best available scientific information, it is clear that the fragile agricultural lands of the PCMS cannot sustain any military training use. The area experienced the Dust Bowl less than 100 years ago due to unconstrained disturbance of the land, and the effects of climate change combined with increased military training could create the same conditions again. Seven months of rest and recovery from military training would not be sufficient to protect the grassland ecosystems. But is it even possible for Fort Carson to limit its training activity to 4.7 months of the year, taking into account all of the force structure changes to date? As described earlier, today Fort Carson is home to the 4th Infantry Division, which includes three HBCTs and one IBCT comprised of about 5,000 soldiers each. These are the most significant units currently assigned to Fort Carson, with roughly 1,082 tracked vehicles, 3,630 wheeled vehicles and multiple UAS and TUAS among them. Fort Carson is now at the highest density of soldiers and equipment that it has seen since the PCMS was originally acquired in 1983. Although overseas deployments have depressed the actual numbers of soldiers and equipment on post and therefore training at the PCMS, with looming budget cuts predicted by the Army it is expected that more troops will operate from home station in the near term. However, the 4th Infantry Division is not the only Army unit assigned to Fort Carson. In addition, military personnel from the 10th Special Forces Group (1,200 soldiers), the 71st Ordnance Group, the 4th Engineer Battalion, the 759th Military Police Battalion, the 10th Combat Support Hospital, the 43rd Sustainment Brigade (3,000+ soldiers), and the 13th Air Support Operations Squadron of the United States Air Force are assigned to Fort Carson, along with three Reserve Component enhanced separate infantry brigades from other states.

So, the question remains: will it even be possible for the Army to restrain itself to using just the PCMS for training just 4.7 months out of the year with this volume of troops to train? Consider that the PCMS Transformation EIS – which was the Army's original attempt to study

the impacts of training all these troops at the PCMS – concluded that the "No Action Alternative" "is not feasible because troops would be moving to Fort Carson and would need to be trained at the PCMS." Exhibit 2 at DEIS at 2-8. As a result, the Army only included the No Action Alternative as "a benchmark to compare the magnitude of the environmental effects of the Proposed Action." *Id.* at 2-8 to 2-9. Indeed, the PCMS Transformation EIS states that "[t]he training requirement under the No Action alternative is more than twice the amount of training that has historically occurred at the PCMS." Id. at 2-15. If these statements are true, then the Army could only provide 50% of the required training for those troops that are currently stationed at Fort Carson – not including an additional Heavy CAB of 113 helicopters and experimental UAS as proposed in the Draft CAB EA. This state of affairs is supported by all of the expansion planning that the Army did – all of which concluded that there was not enough room at the PCMS to train the soldiers stationed at Fort Carson in 2006 to doctrinal requirements.

Even assuming, for the sake of argument, that the Army is being truthful when it declares that it will limit training at the PCMS to no more than 4.7 months per year, the fact is that Fort Carson is not the only entity that is using the PCMS for training. According to various published government reports, Fort Carson and the PCMS also host units of the Army Reserve, Navy Reserve and the Colorado Army National Guard, the Marine Forces Reserve, Navy SEALS and SEABEES, Air Force Special Operations Command's 302nd Airlift Wing, the U.S. Air Force Academy, the Colorado Air National Guard, visiting Army units and various federal, state and local law enforcement agencies. Nowhere in any of the relevant environmental documents is there any discussion about how many other units use the PCMS in a given year, for how long, how frequently, for what types of training use what type of equipment. It is impossible for the public to understand the potential impacts of the Proposed Action because the Army's studies only tell part of the story.

However, the Army did release objective information about training use in the "National Defense Authorization Act Section 2831(a) Report on the Piñon Canyon Maneuver Site, Colorado" which was submitted to Congress. Exhibit 87. According to the 2008 NDAA Report, Fort Carson has used a Range Facility Management Support System to track scheduling of training exercises at the PCMS since 2004. *Id.* at 18. The Army reviewed its own records and determined that 11,369 "Training Events," defined as "a unit of any size conducting training at a specified facility for a specified number of days," took place at the PCMS between October 2004 and April 2008. *Id.* The 2008 NDAA Report indicates that this encompassed usage by all DOD forces, including units from the U.S. Army National Guard and Reserve, U.S. Air Force, U.S. Navy and U.S. Marine Corps. *Id.* In addition, the 2008 NDAA Report discloses that local, state and federal law enforcement agencies used the PCMS for 115 Training Events during that time period. *Id.* The Appendices to the 2008 NDAA Report contain detailed information about each of the Training Events, including information on the month that the training occurred. Appendix B & C show that between 2004 and 2008 Fort Carson engaged in brigade and/or battalion training at the PCMS during seven months in 2005, six months in 2006 and seven months in

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 76 of 123

2007.[34] Appendix D includes 70-pages of information regarding Training Events at the PCMS for a one year period, from May 2007 to April 2008. *Id.* at D-1 to D-72. Notably, every single month during that time has multiple listings of training events, contradicting the Army's claim that the PCMS will only be used for 4.7 months out of the year.

Meanwhile, the Army has expanded and increased the use and intensity of training at the PCMS to include an additional type of aircraft, a low altitude tactical navigation CV-22 Osprey that flies "as low as 200 feet above-ground-level (AGL) with speeds below 250 knots indicated airspeed." Exhibit 55. This low altitude tactical navigation training was authorized by the Army in 2009 based upon a REC without pre-existing or previous NEPA documentation. *Id.* Training records produced by the Army show that the Army Reserve was scheduled to conduct operations on downrange landing zones with Osprey aircraft on March 3, April 4, April 8, 15, April 19, and November 3, 2011, apparently in coordination with the 71st Special Operations Squadron from Kirtland Air Force Base in New Mexico. Exhibits 56 & 57. This was a violation of NEPA, CFR 32 Part 651.19 (Army Regulation 200-2), and the District Court's Order. The CV-22 is an Air Force aircraft that is also included as part of the Cannon Air Force Base Low Altitude Tactical Navigation ("LATN") project described below. Exhibit 88.

In addition, one of the two clamshell buildings that were identified as construction projects in Appendix B in the PCMS Transformation EIS is designed to accommodate C-130 aircraft. Exhibit 55. Using a REC, Fort Carson authorized the construction of two clamshell maintenance shelters during the summer of 2010 – one for tracked vehicles and one for aircraft. *Id.* According to the REC:

> The clamshells would include two drive-through maintenance bays suitable for heavy tactical vehicles, such as tanks, armored vehicles, trucks, and other military vehicles, to include aviation assets...The overall size of each shell is approximately 18' x 10' high x 60' wide x 141' long... The current vehicle maintenance facility at the PCMS is small, and maintenance is limited to small wheeled vehicles. It is not large enough to accommodate tanks and other armored vehicles or helicopters...

Id. (emphasis supplied). In connection with construction of the clamshell vehicle maintenance facilities, the Army also relied on RECs to authorize construction of a 2500 foot long water line to fire hydrants located near the buildings on February 28, 2011, which would "provide the capability to refill fire apparatuses for fire protection of C-130s that utilize the airfield as well as for protection of the clamshells." *Id.* Although the CV-22 and C-130 aircraft are not part of the

[34] Training use data was provided for the period from October 2004 through Apil 2008. Training exercises occurred in two out of three months during the final quarter of 2004 and also during three of the four months at the beginning of 2008.

Proposed Action, it is noteworthy that the Air Force is currently proposing a LATN area for the use of C-130 and CV-22 aircraft as low as 200' above ground level that formerly included the PCMS within its boundaries. Exhibits 88 & 89. The LATN project seeks to designate millions of acres of private and public lands in southern Colorado and northern New Mexico for low altitude military aviation training use. *Id.*[35] At the very least, the LATN proposal should have been fully analyzed and its cumulative environmental impacts disclosed to the public as part of the Draft CAB EA and its predecessors.

In summary, the best available scientific evidence demonstrates that the PCMS cannot withstand that frequency or intensity of military use contemplated in the 1980 EIS, much less what is proposed today. And, even though Fort Carson has indicated that it will not use the PCMS for training more than 4.7 months per year, the Army is already using the PCMS for far more than five months pea year and there is no public disclosure of training schedules that would make this promise enforceable. In addition, the available records show that many other military and law enforcement groups other than Fort Carson use the PCMS for training. Contrary to conclusions drawn by the Army, the cumulative impacts of all of this training will be severe. The Draft CAB EA and its predecessors fail to provide any information about past or projected use of the PCMS by non-Fort Carson troops, and therefore the environmental analysis is flawed and invalid under NEPA.

IX. Fort Carson Has Illegally Completed Transformation Construction Projects at the PCMS That Are Designed to Facilitate Air-Ground Integration Training at the PCMS In Violation of NEPA

Appendix B to the PCMS Transformation EIS presents a list of proposed construction projects. Exhibit 2 at B-1 to B-4. To effectuate this plan, on August 2, 2007, the Army issued the PCMS Transformation ROD, authorizing construction of new facilities in the cantonment area, construction of new facilities in the training areas, and an increased use of training areas at the PCMS. However, as noted above, the District Court's order vacating the PCMS Transformation ROD bars construction of any of the facilities listed in Appendix B without proper NEPA analysis. No additional NEPA analysis has been performed for any of these facilities. However, it appears that a number of projects are currently underway at the PCMS including but not limited to:

(1) Concrete Pads for Command and Control Training Vehicles;
(2) Clamshell Buildings;
(3) Vehicle Maintenance Shop;

---

[35] N1MA! submitted a scoping comment letter for the LATN project, Exhibit 127, and a comment letter on the Air Force's Draft LATN EA, Exhibit 129, both of which are attached hereto and expressly incorporated by reference.

(4) Vehicle Wash Rack; and
(5) Communications Huts.[36]

Exhibit 2 at B-2 to B-3. Furthermore, on April 21, 2010, the Army conducted a Section 106 consultation under the National Historic Preservation Act ("NHPA") regarding the proposed construction of two Clamshell shelter units for a vehicle maintenance facility within or adjacent to the PCMS cantonment area. Exhibit 90. The April 21, 2010 memo notes "there is no existing facility on the maneuver site capable of providing this type of maintenance, nor are these types of services available in the area to serve this remote location. The current vehicle maintenance facility at the PCMS is small, and maintenance is limited to small wheeled vehicles, it is not large enough to accommodate tanks and other armored vehicles or Army aviation aircraft, i.e. rotary wing." Exhibit 90 at 3-4. Construction of the vehicle maintenance facility is a direct violation of the District Court's order. Moreover, the Army has failed to conduct a NEPA analysis to determine the environmental impacts of this construction project. During a legislative tour of PCMS, the commenters here were told that a $750,000 wash rack was being built on the site.

Further, N1MA! observed during tours of PCMS that extensive ground disturbances have occurred at various check dams. Exhibit 91. This construction is described as dam "enhancement" to allow for training maneuvers. These and other construction activities are directly related to Transformation of PCMS. This type of increase in the intensity of use of PCMS is specifically prohibited by the District Court's decision vacating the PCMS Transformation ROD and EIS. However, none of these activities or impacts is addressed in the PCMS Transformation EA, the Draft CAB EA or other relevant documentation currently available to the public. It is noteworthy that the PCMS Transformation ROD established that:

> Under the Preferred Alternative evaluated in the EIS, the Army will: 1) increase use of the PCMS training areas to provide training for realigned AC units and additional RC units assigned to, or otherwise under the control of Fort Carson; 2) construct facilities in the Cantonment to support longer-duration training rotations; and 3) construct training facilities in the training areas.

Exhibit 4 at 1. The Transformation EA states that its Proposed Action is the same as that which was presented in the PCMS Transformation EIS and ROD, "except as modified below." Exhibit 12 at 5. The modification described by the Transformation EA is the purported "removal of construction" from the Transformation EA's scope of consideration. *Id.* However, as noted above, and discussed below, the Proposed Action in the Transformation EA would have

---

[36] Aerial photographs reveal construction matching the description of communication huts described in Appendix B to the PCMS Transformation EIS. Exhibit 60.

authorized the Army to expand the intensity and tempo of its current usage of the PCMS. The activities contemplated by the Transformation EA include: (1) an unspecified amount and type of increased usage; and (2) construction of new facilities at PCMS.[37] *Id.* at 2, 5. The Transformation EA asserts that the Army plans to expand its use of the PCMS training areas due to an increase in the number of troops stationed at Fort Carson pursuant to the BRAC process and a shift in training policy based on former Secretary of Defense Donald H. Rumsfeld's "Transformation" doctrine. *Id.* at 2.

NEPA requires an EIS to include an analysis of "the environmental impact of the proposed action," 42 U.S.C. § 4332(2)(C)(i), including ecological, aesthetic, historical, cultural, economic, social, and health impacts, whether direct, indirect, or cumulative, 40 C.F.R. § 1508.8. CEQ regulations require that "[p]roposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement." 40 C.F.R. § 1502.4(a). Actions are considered "connected" if they: (a) automatically trigger other actions which may require environmental impact statements; (b) cannot or will not proceed unless other actions are taken previously or simultaneously; or (c) are interdependent parts of a larger action and depend on the larger action for their justification. 40 C.F.R. § 1508.25(a)(1). If proceeding with one project will, because of functional or economic dependence, foreclose options or irretrievably commit resources to future projects, the environmental consequences of the projects should be evaluated together. *Fritiofson v. Alexander,* 772 F. 2d 1225, 1241 n.10 (5th Cir. 1985). NEPA regulations state that significant cumulative impacts are not to be made to appear insignificant by breaking a project down into small component parts. 40 C.F.R. § 1508.27(b)(7).

Currently there are very few developed facilities within the training areas at the PCMS, which is separated from Fort Carson by some 150 miles, and the Army even describes the existing facilities in the 1660-acre Cantonment area as "austere." Exhibit 2 at 3-3. Therefore any construction on the PCMS represents a major change in intensity of use. The Army prepared the PCMS Transformation EIS in 2007 "to assess the direct, indirect, and cumulative environmental and socioeconomic effects of implementing three Army transformation programs at the PCMS: (1) BRAC; (2) IGPBS; and (3) AMF. The proposed action in the PCMS Transformation EIS included a series of construction projects related "to implementation of transformation activities at PCMS." Exhibit 92 at 1. Those projects were identified in a list found in Appendix B in the PCMS Transformation EIS, and included storage facilities, support facilities, a vehicle maintenance facility, motor pools, and upgraded roads and utilities, as well as

---

[37] Notwithstanding the Army's assertion that it has "removed" construction from the Transformation EA, Exhibit 12 at 5, as noted elsewhere in the document, the Army explicitly admits that "[c]onstruction projects other than those listed in the 2007 PCMS EIS have been and will likely continue to be built." *Id.* at 6 (emphasis added). The evidence submitted with these comments, including work orders and RECs clearly demonstrate that the PCMS in fact hosts a construction program of robust proportions. Exhibit 55.

a protective equipment training facility in the training areas. Exhibit 2 at B-1 to B-4. The PCMS Transformation ROD authorized these construction projects in support of the realignment and transformation of Fort Carson, which was expected to result in more frequent training use of the PCMS and longer-duration training rotations associated with approximately 8,500 additional soldiers to be stationed there. The PCMS Transformation EIS expressly stated that under the "no action" alternative, "no major capital improvements would occur because none is anticipated other than those associated with BRAC 2005, IGPBS, and AMF." Exhibit 2 at ES-3 & 3-6 ("Facility construction would not be conducted under the No Action alternative.")

After the federal lawsuit challenging the PCMS Transformation ROD was filed, the Army agreed to provide N1MA! with at least two weeks' advance notice of any construction projects to be undertaken pursuant to the ROD. This agreement was memorialized in the Scheduling Order filed with and approved by the Court, which recites:

> Should this matter remain unresolved at the time construction authorized by the Record of Decision become imminent, Plaintiffs may seek a preliminary injunction against such activities. Defendants will notify counsel for Plaintiffs at least two weeks before construction begins so that Plaintiffs will have the opportunity to file a timely request for such relief.

See, Exhibit 93 at 6. After the District Court vacated the PCMS Transformation ROD, the Army did not appeal the Court's decision.

On September 16, 2009, one week after the federal court vacated the PCMS Transformation Record of Decision, counsel for N1MA! sent a letter to the Department of Justice in order to confirm that the Army would abide by the court's decision. Exhibit 94. Specifically, the letter asks the Department of Justice ("DOJ") to confirm the Army's agreement with the following point:

> The Defendants may not proceed with any of the activities authorized in the PCMS Transformation ROD, including but not limited to: (1) construction of new facilities in the administrative cantonment area at the PCMS; (2) construction of new facilities in range and training areas at the PCMS; and (3) any increase in the frequency, duration or intensity of training exercises at the PCMS beyond historical levels.

Id. at 1. The DOJ responded by letter dated September 22, 2009 and observed that "the Army fully intends to abide by the Court's decision." Exhibit 95 at 1. The DOJ explained that "to the extent that the Army proposes to undertake activities previously authorized under the now vacated ROD, the Army will need to determine what level of additional NEPA compliance is required." *Id.* The Army took the position that it could "complete any previously approved construction at the PCMS that was not the subject of the 2007 ROD, to the extent that such

construction has not yet occurred." *Id.* (emphasis added). The letter concluded that "pending additional NEPA analysis of implementation of the transformation programs at the PCMS, the Army plans to review any future proposals for additional training or construction to determine whether these activities constitute "major federal action" that is subject to the requirements of NEPA and the appropriate NEPA compliance." *Id.*

In 2007, the House of Representatives overwhelmingly approved legislation to ban funding for any activity related to expansion at the PCMS. 121 Stat. 2276, Pub. L. 110–161 at § 409 (Dec. 26, 2007). The funding ban, which was passed by a bipartisan 383-34 vote, was included within the "Military Construction and Veterans Affairs and Related Agencies Appropriations Act." The funding ban provides that: "[n]one of the funds appropriated or otherwise made available in this title may be used for any action that is related to or promotes the expansion of the boundaries or size of the Pinon Canyon Maneuver Site, Colorado." 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).

On January 12, 2010, just four months after the Court's decision was handed down, 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 92. The Memo falsely states (as explained below) that "none of the projects listed has been constructed, and none has been funded." *Id.* The Memo claims that "[d]eletion from the proposed action of the construction projects in Appendix B of the EIS would reflect more accurately the current status of implementation of the transformation activities." *Id.* Thus, the Memo concludes that "the construction projects listed at Appendix B are no longer part of the implementation of the transformation activities and should not be included in the NEPA review associated with that implementation." *Id.* The Garrison Commander approved deletion of the list of construction projects from the Transformation proposed action on January 15, 2010. *Id.*

In January 2011, the Army issued the PCMS Transformation EA, justifying the reduced scope of analysis due to the removal of the construction projects. The Army had previously prepared an EIS based upon its determination that actions associated with the "transformation" of the PCMS had not only the "potential" to result in adverse environmental impacts to air quality, biological resources, cultural resources, and geology and soils at the PCMS, but in fact also that "[i]mplementation of the Proposed Action would result in adverse impacts to some environmental resources at the PCMS." Exhibit 2 at ES-6. The PCMS Transformation EIS describes the impacts as follows:

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 82 of 123

> Nearly all of the vegetated areas and wildlife habitat on the maneuver training area (most of the land area, excluding canyons and cantonment area) at PCMS could be disturbed during training exercises. Less mobile and burrowing wildlife species could be directly affected by training exercises. Recreational use of the PCMS for hunting could become more limited because of conflicts with increased training activity. Air quality impacts could result from increased convoy traffic, construction of facilities, operation of additional combustion equipment, maneuver training, and prescribed burns. Archaeological or paleontological resources could be encountered and inadvertently impacted during training activities. Training activities could adversely affect soils and make them more prone to wind and water erosion.

Id. The Transformation EA admits that the Army deleted the construction projects from the Transformation proposed action in order to justify preparing an EA instead of a more rigorous EIS. Indeed, the EA states:

> [T]he Proposed Action has been changed significantly by eliminating the construction projects that were included in Appendix B of the 2007 PCMS EIS. As a result, it was determined that an EA was the appropriate initial level of NEPA review.

Exhibit 12 at 1-3. As an example of this less rigorous environmental review, the PCMS Transformation EA describes how cumulative impacts will be decreased as a result of the removal of the construction projects:

> In the absence of the proposed action's construction component described in the 2007 PCMS EIS, cumulative impacts as described in that EIS would most likely decrease. There may be occasional small construction, repair, maintenance, or renovation projects integral to operation of the facility and responsive to changes in mission requirements, but those projects are small in scope and are not expected to have significant impact either individually or collectively.

Id. at 26. As described elsewhere in this comment letter, the impacts from past training have caused "severe environmental damage" and the claim that there will be no significant impacts to the PCMS as result of increased training is arbitrary and capricious. The removal of the construction component from the Transformation proposed action does not reduce the level of impacts to below the significance threshold and constitutes illegal segmentation under NEPA. This is a classic example of segmentation – the Army has taken a project and segmented it into

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 83 of 123

smaller pieces in an attempt to circumvent the environmental and public disclosure requirements of NEPA.

However, notwithstanding the Army's claim that the construction projects in the PCMS Transformation EIS were abandoned, Fort Carson has been moving forward with many of those same projects while telling the public and Congress that no such construction has occurred. For instance in the February 2011 CAB PEIS, the Army states:

> The 2007 transformation EIS had analyzed several specific construction projects for PCMS. <u>These construction projects have not been built</u>.

Exhibit 14 at G-71 (emphasis added). On April 6, 2011, Assistant Secretary of the Army Katherine G. Hammack appeared before the Congressional Subcommittee on Military Construction and Veterans Affairs. Cong Rec. D 368 (Apr. 6, 2011). Assistant Secretary Hammack was asked the following question:

> Some of the most ecologically sensitive native grasslands exist in Colorado in the Pinon 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 Pinon 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?

Exhibit 96. 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.

Id. Contrary to its public statements, the record shows that since 2009 the Army has engaged in construction activities at PCMS that were listed in Appendix B of the PCMS Transformation EIS using RECs, environmental reviews that precede federal actions that an agency finds are subject to a regulatory Categorical Exclusion from NEPA. Army Regulations describe the REC as:

> [A] signed statement submitted with project documentation that briefly documents that an Army action has received environmental review. RECs are prepared for CXs that requires them, and for actions covered by existing or previous National Environmental Policy Act (NEPA) documentation..."

32 CFR Part 651.19. Army Regulation 200-2 provides that RECs and Categorical Exclusions are not made a matter of public record unless questioned.[38] Pursuant to the Freedom of Information Act, N1MA! obtained copies of all RECs related to PCMS that were issued between 2009 and 2011 and discovered that the following projects were authorized with no analysis of impacts under NEPA.

Vehicle Maintenance Facilities

The PCMS Transformation EIS stated that support facilities, including a vehicle maintenance facility and motor pools, would be built in support of Transformation activities. Exhibit 2 at 3-102. Two clamshell buildings were identified as construction projects in Appendix B in the PCMS Transformation EIS. *Id.* at B-2. Using a REC, Fort Carson authorized the construction of two clamshell maintenance shelters during the summer of 2010 – one for tracked vehicles and one for aircraft. Exhibit 55. According to the REC:

> The clamshells would include two drive-through maintenance bays suitable for heavy tactical vehicles, such as tanks, armored vehicles, trucks, and other military vehicles, to include aviation assets...The overall size of each shell is approximately 18' x 10' high x 60' wide x 141' long... The current vehicle maintenance facility at the PCMS is small, and maintenance is limited to small wheeled vehicles. It is not large enough to accommodate tanks and other armored vehicles or helicopters...

See, Exhibit 55. Before undertaking this construction project, the Army initiated a Section 106 consultation process under the National Historic Preservation Act ("NHPA") by sending a letter dated April 21, 2010 to the Otero County Board of County Commissioners. See, Exhibit 90. In

---

38 The newest version of AR 200-2, renamed as Environmental Analysis of Army Actions, was published as 32 CFR Part 651 in the Federal Register on March 29, 2002 (67 Fed Reg. 15289-15332).

response, the Otero County Commissioners questioned the legality of the construction in light of the funding ban and the District Court's order, and Congressman John Salazar sent a letter to Inspector General Gordon S. Heddell at the DOD demanding an investigation. See, Exhibit 97. The Otero County Commissioners stated:

> While the vehicle maintenance facilities outlined were significantly larger than the Clamshell Facilities currently proposed, it does appear that this project is being proposed in support of increased and/or not historic uses at the PCMS. The Transformation EIS also stated that the construction of vehicle maintenance facilities would "result in a substantial increase in the use of hazardous materials, including petroleum-based products in the Cantonment and the training areas" (Transformation EIS page B~3). The proposed construction of these clamshell maintenance facilities, combined with the Proposed Maintenance Building addressed in Section 106 consultation dated March 26, 2010, appear to suggest that the Army is not adhering to the federal court decision.

Id. In connection with construction of the clamshell vehicle maintenance facilities, the Army also relied on RECs to authorize:

- Construction of a 2500 foot long water line to fire hydrants located near the buildings on February 28, 2011, which would "provide the capability to refill fire apparatuses for fire protection of C-130s that utilize the airfield as well as for protection of the clamshells.

- Extension of an underground electric line to the buildings at a depth of 290' below ground on February 7, 2011;

- Installation of insulation and electrical and heating systems in the buildings on January 5, 2011; and

- Construction of two concrete pads for the buildings on or about March 31, 2011.

See, Exhibit 55. Note: In the Final CAB PEIS, the Army states: "[t]he proposed Combat Assault Landing Strips that appear in the noise analysis in Appendix B at page B-18 and B-30 of this PEIS were proposals that were under consideration at the time of the drafting of that analysis. These projects were not, and are not, associated with the proposed action in the CAB PEIS. The Combat Assault Landing Strips would have been utilized by Air Force C-130 fixed wing aircraft. These projects are no longer under consideration." Exhibit 14 at G-72.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 86 of 123

Steel Buildings

Appendix B of the PCMS Transformation EIS identified two 6,000 square foot "Steel Buildings" as a construction project associated with Transformation. See, Exhibit 2 at B-2. 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." See, Exhibit 55. The Work Request for this project describes the "Possible Future Use" of the building thusly: "[t]he Building will be capable of Providing Required Soldier Housing Capabilities, Administrative Use, Storage Use, Classroom Use and/or Covered Training Area and Shower/Latrine Capabilities." *Id.*

Equipment Maintenance

Appendix B of the PCMS Transformation EIS identified one 5,000 MILES Warehouse as a construction project at the PCMS accompanied by the notation that this facility was referred to as "Equipment Storage Warehouse" at a public scoping meeting. Exhibit 2 at B-2. On May 14, 2010, Fort Carson authorized the pouring of a concrete slab for a 900 square foot range maintenance equipment storage facility at the PCMS. *See,* Exhibit 55.

Vehicle Wash Facility

Appendix B of the PCMS Transformation EIS identified a 10,000 square foot vehicle wash rack as a construction project associated with Transformation. Exhibit A at B-3. The notes indicate that wastewater would be treated by an oil water separator. *Id.* On February 24 2011, Fort Carson authorized construction of a vehicle wash facility at the PCMS, including 10" thick reinforced concrete, a 2100 square foot staging area, a 10,980 square foot bath area, and a six bay wash area with eight water canons, 29 frost-free hose hydrants, and an oil/water separator that would drain into an existing lagoon. *See,* Exhibit 55.

Training Construction

On April 20, 2009, Fort Carson authorized construction of IED Defeat Lanes at the PCMS, including mock villages for continued training requirements. *See,* Exhibit 55. The REC for this project states:

> It has been determined that the proposed action falls within, and the environmental impacts have been adequately analyzed within, the following NEPA document(s):
>
> - 2007 PCMS Transformation Final EIS and Record of Decision (ROD)

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 87 of 123

- 2009 Final EIS for Implementation of Fort Carson Grow The Army Decision and ROD

Id. First, the PCMS Transformation EIS appears to contain no reference to construction of IED Defeat Lanes. Appendix B of the PCMS Transformation EIS does not list such a project. Second, the Fort Carson GTA EIS is invalid because it is based upon the PCMS Transformation EIS and repeatedly states that "no construction at the PCMS" is authorized as part of that project. *See,* Exhibit 8 at 2. Therefore, it appears that the REC for this project is falsely tiered to prior environmental studies.

To the extent that these facilities could be considered part of the PCMS Transformation Proposed Action, however, their construction directly violates the Scheduling Order issued by the District Court in the federal litigation because the Army did not provide the required notice to N1MA! Similarly, the Army authorized construction of the protective equipment training facility described in the PCMS Transformation EIS on March 9, 2009. *See,* Exhibit 55 (identified as "NBC," or Nuclear Bio Chemical). The NBC Chamber was listed in Appendix B of the PCMS Transformation EIS. Exhibit A at B-3. On December 1, 2009, Fort Carson approved dismounted military training exercises involving air-drops via Blackhawk helicopters at the PCMS. See Exhibit 55. The REC for this project relies upon the PCMS Acquisition EIS and the Fort Carson GTA EIS, which is invalid as noted above because its environmental analysis was expressly based on the analysis struck down by the Court in the federal litigation.

In summary, it is clear that Fort Carson has violated 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 funds in support of any expansion of use at the PCMS; and (6) providing false information related to construction projects at the PCMS to Congress and the public. For these reasons, the Army must immediately cease any and all construction projects at the PCMS that involve anything beyond routine repair and maintenance of existing facilities.

During the public meetings last week, the Army announced that the Proposed Action has been modified to add construction of seven concrete helicopter pads. However, the Army states

in the CAB EA: "No CAB facilities construction is planned or needed at PCMS." Exhibit 16 at 2-13. Yet another example of a flawed NEPA process.

IX. The Army is using the Draft CAB EA to justify a decision that has already been made, in violation of NEPA.

NEPA was enacted by Congress to ensure that federal agencies thoroughly evaluate potential environmental impacts of and reasonable alternatives to proposed actions before making a commitment of federal resources. The analysis of environmental effects in an EIS must show good-faith objectivity on the part of the agency. *Metcalf v. Daley,* 214 F.3d 1135, 1142 (9th Cir. 2000) ("the comprehensive "hard look" mandated by Congress . . . must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made.").

In this case, the decision to station a Heavy CAB at the PCMS was admittedly made long before preparation of the CAB EA. The Army began the environmental review process with the Fort Carson Grow the Army EIS, which was mainly oriented to analyzing the impacts of stationing a fifth BCT at Fort Carson (a decision later withdrawn). Fort Carson added a potential CAB into the mix apparently in the hopes of expediting the approval process.[39] Although the Fort Carson GTA ROD states that no CAB would be stationed at Fort Carson, the Army subsequently prepared the CAB PEIS and ultimately issued the CAB PEIS ROD in March 2011, which authorized the stationing of the CAB that is at issue here.

However, the record shows that the Army had decided long ago to station a new Heavy CAB at Fort Carson. On Monday, March 28, 2011, the Colorado Springs Gazette reported that "Army leaders briefed Colorado's Congressional delegation" about the decision. Exhibit 98. According to the article, "Colorado Springs Republican U.S. Rep. Doug Lamborn said construction money could start flowing to Fort Carson within months to improve Butts Army Airfield and build a headquarters and barracks for the unit." *Id.* The Gazette article notes that "[t]he additional troops will balloon Fort Carson's population of soldiers to a level unseen since World War II." *Id.*

X. The EA fails to adequately disclose or consider potential impacts to air quality at PCMS.

The Draft CAB EA admits that the Proposed Action would increase emissions of some of our most serious air pollutants: particulate matter, carbon monoxide, nitrogen oxides, and greenhouse gases including carbon dioxide. Exhibit 16 at 4.3-2 to 4.3-3. The Draft CAB EA attributes most of the increase to vehicle travel across dirt roads, which will certainly be

---

[39] Significantly, neither the Fort Carson GTA EIS nor the CAB PEIS analyzes the specific density and configuration of troops and weapons associated with a Heavy CAB, as opposed to a mere CAB.

significant, but overlooks off-road travel by Fort Carson's increased inventory of wheeled vehicles, which will rise from 3,630 to roughly 4,300. These vehicles will travel off-road throughout 80% of the property open to mechanized maneuvers, disturbing vegetation and exposing soils to sun and wind. For the reasons discussed above, Fort Carson cannot reasonably rely on its environmental programs as policies to mitigate significant increases in air pollution.

The increased training of the Proposed Action would, in fact, result in significant impacts to the air quality and violations of the Clear Air Act at the PCMS. In past training rotations at the PCMS, the Army violated the National Ambient Air Quality Standards ("NAAQS") and Colorado State Primary Air Quality Standards, for example, regarding particulate matter ("PM10"), TSP, and obscurant smoke. Even if the Proposed Action would not require an 'increase' in the annual use of smoke or obscurants, even the limited training in the past training rotations resulted in air quality violations because obscurant utilization resulted in movement of smoke plumes beyond the PCMS property boundary on more than one occasion. The AARs for past training rotations stated, for example:

> While not particularly related to overall air quality, obscurant utilization on 26 January during a period of very high winds resulted in movement of the smoke plume some five (5) miles off of the PCMS from a NNW to SSE direction and over private property. A similar situation occurred on 7 February again during a period of very high winds and resulted in movement of the smoke plume some ten (10) miles off of the PCMS from a NNE to SSW direction and over private property. Both releases were in violation of existing training limitations and Colorado Department of Health and Environment (CDHE) Regulations. Additionally, the release on 7 February could have resulted in potential traffic safety concerns on Highway 350 if PCMS management staff had not responded and temporarily delayed traffic until ambient visibility had returned.

Exhibit 20 at 0019651. The AAR also states that "[i]n regard to the three exceptions, generation of obscurant smoke was not curtailed/terminated timely enough to provide for attenuation of the plume within the boundaries of the PCMS." *Id.* at 0019732.

The AARs from historic training levels describe significant violations of National and Colorado primary air quality standards:

> Violations of the National and Colorado State primary air quality standards occurred during the rotation and prior to the heavy rains experienced after 12 July 1989. Total suspended particulates (all dust in the air) levels exceeded the 260 microgram per cubic meter standard twice during July. The PM10 particulates, particles less than 10 microns in size which can enter the alveoli of the lungs, exceeded the 150 micrograms per

> cubic meter standard twice during the month. "Routinely, there remains a clear and significant increase in dust levels associated with military training maneuvers. *Id.* at 0019545.
>
> Violations of the National and Colorado State primary air quality standards occurred a total of seven (7) times during this rotation. Total suspended particulates (all dust in the air) levels exceeded the 260 micrograms per cubic meter standard five (5) times between 25 October and 6 November. The PM10 particulates, particles less than 10 microns in size which can enter the alveoli of the lungs, exceeded the 150 micrograms per cubic meter standard twice (2) during the month of October." *Id.* at 0019560-0019561.
>
> Routinely, there remains a clear and significant increase in dust levels associated with military training maneuvers (1100% for TSP and 275% for PM10 levels between training and non-training areas during this rotation). Once maneuvers cease, dust levels drop to acceptable levels. Extreme documented dust levels may create air induction problems for internal combustion engines. Health problems may also occur (dependent upon individual sensitivity) if respiratory protection is not used during excessively dry and dusty conditions. *Id.* at 0019588-0019589.

The increased adverse impacts to air quality resulting from the Proposed Action will also require analysis of impacts to Air Quality Related Values ("AQRV") including visibility and specific scenic, cultural, physical, biological, ecological, and recreational resources at the PCMS. "Federal Land Managers have been directed by Congress, through various mandates, to preserve and protect air quality related values. These mandates include the agencies' organic acts, the Wilderness Act, and the Clean Air Act. Congress directed the Federal Land Managers to: assume an aggressive role in protecting the air quality values of land areas under their jurisdiction. In cases of doubt the land manager should err on the side of protecting the air quality related values for future generations." Senate Report No. 95-127, 95th Congress, 1st Session, 1977).

Finally, the Army fails to identify, disclose or analyze the air contaminant emissions that will be emitted from the helicopters and UAS in the Heavy CAB and other aircraft that will participate in training rotations at the PCMS. Indeed, no attention is given to possible emissions from UAS at all. The Army also fails to discuss the adverse impacts of carbon monoxide ("CO"), nitrogen oxides ("NOx"), particulate matter PM10, PM2.5, and Greenhouse Gas ("GHG") emissions on human health and the environment. The Army also fails to discuss the adverse impacts of pollutant emissions in the 'lower' atmosphere to air quality, human health,

biological resources, wildlife, and water resources that will be caused by low altitude training flights.

Jet fuel consists of a complex mixture of hydrocarbons, including poly aromatic hydrocarbons ("PAHs"), naphthalene and benzene (a known carcinogen) that may impact human health, animals and even plants. Exhibit 99. Increased use of aircraft can contribute to air quality problems from the storage and combustion of jet fuel, including contribution to ozone pollution, particulate matter pollution, nitrogen oxide pollution, and sulfur dioxide pollution. The EPA is in the process of developing new NAAQS for each of these criteria pollutants.

The Army fails to disclose and analyze the impacts of nitrogen oxide emissions, which will adversely impact both human health and the environment. Nitrogen dioxide ("NO_2") is one of a group of highly reactive gasses known as "nitrogen oxides." Other nitrogen oxides include nitrous acid and nitric acid. According to EPA, "[w]hile ozone is a beneficial component of the upper atmosphere, it is damaging to both ecological and human health when found in the lower atmosphere." Exhibit 100. The Draft CAB EA fails to discuss multiple transport and exposure pathways of airborne nitrogen emissions; atmospheric concentrations and ozone and particulate matter; nitrogen wet deposition, cloud deposition, and dry deposition; regional effects of nitrogen emissions on health, visibility and materials; atmosphere concentrations of particulate matter; visibility impact/material damage; aquatic concentrations and nitrate concentrations in drinking water; terrestrial systems; freshwater ecosystem effects; and the impacts on water quality. *Id.*

NOx emissions can affect people and natural resources through the formation of ozone in the lower atmosphere. NOx is key to the reaction that forms ozone, effectively producing many molecules of ozone for each NOx molecule that is emitted. While ozone is a beneficial component of the upper atmosphere, it is damaging to both ecological and human health when found in the lower atmosphere. Impacts on trees and plants include impairment of growth and commercial yield, reduction in the survival of seedlings, increase in susceptibility to disease and foul weather, and reduction in habitat quality for wildlife." *Id.* at 8. Nitrogen oxides can travel long distances from their origins. *Id.* at 13.

Ozone has an especially strong impact on respiratory function when individuals are exercising, irritating even healthy lungs, decreasing the volume of air a person can take in with each breath, and causing fast, shallow breathing. Concentrations as low as 80 parts per billion (ppb) can cause damage when people are exposed for over eight hours at a time, as can levels of 120 ppb over even short periods of time. These conditions are common in urban areas across the country, especially in summer months when heat and humidity promote the production of ozone. In addition, ozone increases respiratory and pulmonary sensitive and inflammation and overall susceptibility to respiration disease. *Id.* at 13.

Nitrogen emissions also contribute to the formation of particulate matter. The term particulate matter (PM) refers to a combination of dust, soot, and solid and liquid masses that form in the atmosphere. Nitrogen oxides interact with other compounds to form the fine

particles and droplets that constitute PM. While PM restricts visibility and contributes to haze problems, these particles are of greatest concern because of their impact on human health, contributing significantly to respiratory damage." *Id.*

Wet deposition of sulfur and nitrogen compounds that contribute to acidification of lakes, streams, and soils is commonly known as acid rain, although such acid deposition also takes the form of snow, sleet, or hail. Certain nitrogen compounds interact with water vapor and droplets in the atmosphere so that the water becomes acidic. Wet deposition is intermittent, since acids only reach the earth when precipitation falls. *Id.* at 9. Wet deposition contributes to seasonal variation in nitrogen inputs to an ecosystem. When acidic or nitrogen-contaminated snow falls during the winter, many of the nitrogen compounds remain stored in the snow until it melts. *Id.*

Dry deposition is similar to the other pathways, but takes place when acidic gases and particles in the atmosphere are deposited directly onto surfaces when precipitation is not occurring. This process provides a more constant source of deposition than the other pathways. Dry deposition is therefore the primary acid deposition pathway in arid regions in the West. *Id.* at 11.

Nitrogen exists in ground- and surface waters in the form of nitrate ions, whose levels are increasing in many parts of the country. The most notable human health impact from nitrate contamination of water supplies is methemoglobinemia, or Blue Baby Syndrome. This most frequently affects infants under one year of age and can cause brain damage or death. A 1990 survey estimated that 4.5 million people a year were potentially exposed to nitrate levels above the EPA's Maximum Contaminant Level (MCL) of 10 mg/L. In addition, increased levels of nitrate in water supplies can increase the acidity of the water and make toxic metals such as mercury more soluble and therefore more available to fish, some of which might be consumed by humans. *Id.* at 15

Along with SO_2 emissions, nitrogen emissions contribute to an increase in regional haze and a resulting decrease in visibility. The same gases and particles that pose risks to lung tissue as fine particles also contribute to regional haze and obstruct views. Scientists estimate that the natural range of visibility, absent the effects of pollution, would be approximately 110 to 115 miles in the western U.S. and 60 to80 miles in the East. Under current conditions, visibility in the West is between 30 and 90 miles and 15 to 30 miles in the East. *Id.* at 14.

Along with SO_2 emissions, nitrogen emissions contribute to an increase in regional haze and a resulting decrease in visibility. The same gases and particles that pose risks to lung tissue as fine particles also contribute to regional haze and obstruct views. Scientists estimate that the natural range of visibility, absent the effects of pollution, would be approximately 110 to 115 miles in the western U.S. and 60 to80 miles in the East. Under current conditions, visibility in the West is between 30 and 90 miles and 15 to 30 miles in the East. *Id.* at 14.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 93 of 123

Nitrogen emissions can also harm buildings and other structures, especially those made of calcite-rich materials such as marble and limestone. When nitric, sulfurous, and sulfuric acids in polluted air react with the calcite in marble and limestone, the calcite dissolves. Stone surface material may be lost all over or only in spots that are more exposed. While not as obvious as the damage done to stone, a wide variety of other materials are damaged byproducts of NOx emissions. Ozone chemically attacks elastomers (natural rubber and certain synthetic polymers), textile fibers and dyes, and to a lesser extent, paints. For example, elastomers become brittle and crack, and dyes fade after exposure to ozone. *Id.* at 14-15.

Too much nitrogen can also lead to a surplus of nutrients resulting in over-fertilization. This can impact species diversity by favoring some nitrogen-tolerant species over other species that are more sensitive to the nutrient. In some ecosystems, other nutrients are in sufficient supply, and so the amount of available nitrogen dictates what growth can take place. Plants living in these systems have adapted to low levels of nitrogen and are especially vulnerable to increased levels of nitrogen deposition. Their decline may lead to changes in the mix of plant species in an area, causing a decrease in species diversity. New plants may also move into nitrogen-rich ecosystems, further challenging native species. Animals that depend on specific plants for habitat and food may also be threatened by the changes resulting from nitrogen inputs. *Id.* at 16.

Excess levels of nitrogen can change the natural cycle of plant uptake, transformation, and release, robbing soils of their capacity to absorb nitrogen compounds. Known as nitrogen (N) saturation, this phenomenon involves the long-term removal of N limitations on biological activity, accompanied by a decrease in the ability of ecosystems to retain N inputs. As a result, nitrogen can migrate to surface waters or leach into groundwater, particularly in sensitive ecosystems with poorly buffered or thin soils, such as the mountainous areas in Colorado. As more terrestrial ecosystems reach the point of N saturation, nitrogen inputs reach groundwater and surface water. *Id.* at 17.

When NOx and SO_2 emissions enter the atmosphere, they can be transformed into acids through complex chemical interactions. These acids return to the earth via precipitation or when plants come into direct contact with acidic cloud droplets or gases and airborne particles. Atmospheric deposition of nitrogen compounds and other pollutants modifies soil chemistry and concentrations of important soil nutrients. *Id.* at 17. Extremely high levels of acid deposition, especially from cloud deposition, damage plant leaves and leach nutrients directly from foliage. Indirect effects of acid deposition are also responsible for damage to forest ecosystems, as acidic ions in the soil displace calcium and other nutrients from plant roots, inhibiting growth. Acid deposition can also mobilize toxic amounts of aluminum, increasing its availability for uptake by plants. *Id.* at 17. Acidification affects fauna throughout the food chain, resulting in significant direct and indirect damages to local fish populations. Even when fish are not immediately killed by increase in acidity, impacts on food sources may force specific species to migrate to less

acidic areas. Acidification of surface waters leads to a decline in species diversity as sensitive species are replaced by species that are more acid-tolerant. *Id.* at 19.

The Draft CAB EA fails to consider the new Colorado proposed nutrient (nitrogen and phosphorus) water quality standards. The current proposed nitrogen concentrations are in micrograms per liter (µg/L). A recent estimated cost for treatment as a result of these new water quality standards in Colorado alone is $23 billion dollars.

The NAAQS for Carbon Monoxide are 9 ppm [parts per million] 8-hour and 35 ppm 1-hour Primary Standards. Exhibit 101. Colorado is currently in non-attainment for Carbon Monoxide in El Paso County, Teller County, Adams County-Denver Metro Area, Arapahoe County-Denver Metro Area, Boulder County-Denver Metro Area, Broomfield County, Denver County, Douglas County-Denver Metro Area, Jefferson County-Denver Metro Area, Larimer County, Greeley County, Longmont County, Boulder County-Portion of Longmont, and Weld County-Portion of Longmont. Exhibit 102. CO can cause harmful health effects by reducing oxygen delivery to the body's organs (like the heart and brain) and tissues. At extremely high levels, CO can cause death. Exhibit 103. Short-term exposures to SO_2, ranging from 5 minutes to 24 hours, may cause an array of adverse respiratory effects including bronchoconstriction and increased asthma symptoms. SO_2 emissions also contribute to an increase in regional haze and a resulting decrease in visibility and harmful impacts to historic buildings and structures. Exhibit 104. Nitrogen Dioxide emissions also contribute to adverse respiratory effects. Exhibit 105.

The Army also fails to discuss other aircraft engine contaminant emissions en route to and from, as well as at PCMS, such as Carbon Dioxide (CO2), Carbon Monoxide (CO), Hydrocarbons (HC), Sulfur Oxides, Particulate Matter (PM), Volatile Organic Compounds (VOCs), Ozone (O3), Semi-Volatile Organic Compounds (SVOCs), and Metals.

Without discussion of the pollutant emissions of all of the aircraft that will be flown in the proposed airspace, as well as calculations of emissions of each type of aircraft, the public has no way of evaluating the total air quality impacts of the Proposed Action. Air pollutant emissions from the aircraft flying in the proposed action area will have significant adverse impacts on human health and the environment.

XI. The Proposed Action Will Cause Significant Increases in Greenhouse Gas Emissions

The Army states in the CAB EA that "[the 2011 CAB Stationing PEIS shows annual GHG emissions from the CAB vehicles to be about 50,000 tons (45,350 tonnes) CO2 equivalent per year." Exhibit 16 at 4.3-2. CO_2 does not have a PSD Significant Threshold, but it is the most significant greenhouse gas emitted by aircraft. According to the Government Accountability Office (GAO) in a June 2009 report to Congress :

> Aircraft emit a variety of greenhouse and other gases, including carbon dioxide—the most significant greenhouse gas emitted by aircraft—and

> nitrogen oxides, as well as other substances such as soot and water vapor that are believed to negatively affect the earth's climate.

Exhibit 106. During flight operations, carbon dioxide emissions from aircraft are a direct result of fuel burn. For every gallon of jet fuel burned, about 21 pounds of carbon dioxide are emitted. *Id.* at 3.

Global warming and climate change are now an acknowledged and pressing concern. The Army failed to properly analyze the effects of the Proposed Action in altering local and/or regional climates. The Draft CAB EA failed to include a cumulative effect analysis of the carbon and global warming footprint of the existing use of military airspace in the region when considered in light of all expanded and foreseeable military airspace uses in the area and region. The Army did not conduct baseline monitoring in areas with and without military overflights in the region in order to assess the effects on air and water quality or determine how far air emissions will travel from their source based on seasonal weather patterns.

The CAB PEIS downplays the increase in carbon dioxide emissions associated with the stationing of a new CAB at Fort Carson:

> There should be no net gain of carbon emissions. The aircraft are already flying somewhere and adding these carbon emissions to the global mix. For a CAB to be built, the emissions will be added to the global production of GHG (greenhouse gas). To put this in perspective, the 87,989.7 tons of C02 represent 0.000013 percent of the U.S. emissions total.

Exhibit 14 at 5-19. Notably, the PCMS Transformation EIS did not discuss increased carbon emissions at all when considering the addition of 8.500 new soldiers to Fort Carson. Exhibit 2. The PCMS Transformation EIS did not mention greenhouse gases or carbon dioxide. *Id.*

The 2011 CAB PEIS reports that annual greenhouse gas emissions from the Proposed Action could be as great as 60,000 tons carbon dioxide equivalent per year. However, the Draft CAB EA then minimizes the impact of this increase by pointing to speculative budget cuts and reductions in personnel. The Draft CAB EA states that:

> GHG emissions have been shown to be proportional to Installation population. Planned budget cuts are expected to reduce Army GHG emissions.

Exhibit 16 at 4.3-3. As a result of reasoning like this, the Army is able to conclude with a straight face that impacts to the environment will be less than significant. The analysis fails to take into account the fact that the Proposed Action is to increase the troop strength at Fort Carson, and there is no reason to think that Congress would go to the expense of creating a CAB only to fail to find funding for training. The Army cannot rely on potential funding limitations

as "mitigation" in order to skew the required environmental analysis under NEPA. The Proposed Action seeks to authorize emissions of up to 60,000 tons of greenhouse gases annually, and those emissions will cause significant impacts to air quality – particularly in the vicinity of the PCMS, where air quality is excellent but for military training. When combined with the greenhouse gas emissions related to training 25,000 soldiers at Fort Carson and the PCMS instead of 14,500 soldiers, which has never been analyzed, the impacts are clearly significant.

The Draft CAB EA fails to conduct an adequate analysis of the Proposed Action's contribution to climate change. The Army incorrectly concluded that "[t]he proposed action's potential air pollutant emissions increases are insignificant and can be mitigated." The Army's conclusion that the proposed action's potential air pollutant emissions increases are insignificant and can be mitigated is arbitrary and capricious and lacks candor.

XII. The EA fails to adequately disclose or consider the significant impacts to vegetation, wildlife, threatened and endangered species, and wetlands (referred to by the Army as 'biological resources')

The Army attempts to minimize the impacts to vegetation, wildlife, threatened and endangered species, and wetlands.[40] The Draft CAB EA simply states:

> Like Fort Carson, 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, 2007c). 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), a status that remains unchanged since the 2011 CAB Stationing PEIS.

Exhibit 16 at 4.7-3. The fact is, however, that the southeastern Colorado ecosystem is unique, with a combination of canyonlands, forested mesas, grasslands and riparian systems that is found nowhere else on Earth. The ecoregion is one of the largest remaining intact shortgrass prairie and canyonland landscapes in the West. Exhibits 107 & 108. These ecosystems contain critical riparian systems that provide habitat for many diverse species of flora and fauna and cannot be replaced if destroyed. According to The Nature Conservancy, "the lands surrounding the Piñon Canyon Maneuver Site represent one of the largest blocks of native grasslands on the western High Plains." Exhibit 108; see also Exhibit 121. The Army failed to take the required "hard

---

[40] Information about the impact of military training on biological resources including vegetation and threatened and endangered species is contained in Exhibit 133 and 134 attached hereto.

look" at the environmental consequences of the proposed action by ignoring evidence contained in its own AARs, which amply demonstrate that historical training alone has caused severe environmental damage at the PCMS. Exhibit 20. Proper consideration of the AARs in the Draft CAB EA and its predecessors would have confirmed that the Proposed Action will significantly affect the quality of the human environment at the PCMS.

After each training rotation, Army land managers have been required to "conduct after action reviews to evaluate possible damage from training exercises." Exhibit 20 at 0001284; *see also* Exhibit 109 at 12 ("[a]ll Fort Carson units training at PCMS will submit closing reports upon closing at PCMS and upon return to Fort Carson."). Prior to 2010, the first AAR for the PCMS evaluated a training rotation between July 29 and August 28, 1985, and the last a rotation between April 5 and May 11, 2002, creating a seventeen year record of AARs. Exhibit 20. These AARs prove that even limited maneuver training at the PCMS caused unnecessary, significant and irreparable damage to natural and cultural resources. *Id.*

Historically, military training activities at the PCMS have destroyed grass species that are slow to recover, accelerated soil compaction and erosion, and caused damage to Piñon-Juniper ecosystems that will require at least 150 years to rehabilitate. *Id.* at 0019413- 0019414. Training has also caused vehicle-related mortality to many species, including the swift fox and Texas horned lizards (which were both candidate species for listing under the federal Environmental Species Act), and black-tailed prairie dogs. *Id.* at 0019678, 0019753. Although the Army claimed that "management efforts will continue which are designed to provide for legal compliance as well as site preservation where applicable," *id.* at 0019581 & 0019755, vehicular intrusions into off-limits and restricted areas continued to cause unnecessary damages in each and every of the seventeen years (1985-2002) for which AARs were produced between 1985 and 2002. *Id.* at 0019419-21, 0019754.

The AARs provide the Army's admission that its command have consistently failed to comply with regulatory requirements or conserve natural and cultural resources at PCMS. In 1985, the Army stated that its PCMS Environmental Program was "designed to insure compliance with all regulatory requirements" and "to fulfill the management commitments published in the" original PCMS Acquisition EIS. *Id.* at 0019410. The Army candidly admitted that "we did not adequately or satisfactorily comply with those 'standards of training' which we have for years been expressing to the concerned citizenry of Colorado and the Congress of the United States." *Id.* at 0019427.

Between 1985 and 2002, the Army reported in the AARs that "[t]he cumulative impacts to the resources of the PCMS will continue to be evaluated and potentially mitigated with each future training rotation. If we can eliminate the continuance of unnecessary resource impacts which are totally destructive in nature, then this management program should prove scientifically and functionally satisfactory." *Id.* at 0019443, 0019757-58 (emphasis added). During the first

seventeen years during which AARs were generated, however, the Army consistently failed to fulfill the management commitments published in the original PCMS Acquisition EIS, and never did eliminate "unnecessary" impacts which were "totally destructive in nature." *Id.*

The Army discussed corrective actions and management efforts to mitigate damages in the AARs and concluded that "we did not adequately or satisfactorily comply with those 'standards of training' which we have for years been expressing to the concerned citizenry of Colorado and the Congress of the United States." Id. at 0019427. For example, in the July 29, 1985 – August 28, 1985 AAR, the Army explained that while impacts were not "totally unanticipated," "they were not anticipated to occur at evidenced extremes." *Id.* at 0019426. The AAR goes on to note that "[i]mpacts to air quality, noise, water quality, wildlife and the vegetation and soils can be mitigated dependent on the availability of funding, timing, the opportunity to implement available intensive management techniques and the incorporation of revised training methodologies." *Id.* The AAR concludes that "[i]f we learned from this rotation to the PCMS that we cannot accomplish our required training in concert with those environmental stipulations which we have guaranteed to the public, then we should attempt to restate our priorities." *Id.* at 0019427.

In describing impacts to vegetation and soils, the AAR from July 1985 states:

> One to three repeated passes over the same site with a tracked vehicle caused a noticeable increase in soil compaction as well as compaction to vegetation, with some increase in exposure of soil by removal of the vegetative component. With two to four years of rest these sites would naturally rehabilitate themselves on a typical prairie range site. With pitting or imprinting, and two years rest this timetable could be reduced. Pivot turns, 360 degree turns and four or more repeated passes by tracked vehicles resulted in complete exposure of the soil surface and total removal of vegetation. Some areas of vegetation damage are isolated in nature. However, the overall effects of the damage are more significant than the isolated damage due to the growing characteristics of the plants themselves. For instance, many grass species (such as bunch grasses) will have been destroyed and prevented from future growth once the "individual" clump has been destroyed. This will impair the land's capability to maintain its stability, prevent erosion and reduce dust. The erosion caused by the reduction in vegetation cover will also affect other plants' future growth capacity by sediment deposition and collection over established living vegetation. Without seeding and rest in areas with a concentration of these activities, recovery to pre-training conditions would require five or more years of rest. Similar sites on semi-desert range in some case remain (bare) unvegetated after 20 years rest... Pinon-juniper

> sites are difficult to rehabilitate and require special attention if the soil component is to be retained. Rehabilitation would require at least 150 years.

Id. at 0019413-0019414.

The AARs reveal that many of the pinon trees at the PCMS are between 200 and 300 years old and cannot easily be replaced. *Id.* at 0019434. The AARs admonish:

> Trees must be avoided at all cost. Experience on Ft. Carson has shown that over time with continued tree loss and virtually no seedling recruitment to maturity a significant reduction in available concealment cover will result. If the present trend continues, sites such as those mentioned will be unusable for adequate concealment within the next 2-5 years.

Id. at 0019433-0019434.

The Army not only appears unconcerned about training impacts to wildlife, including federally-protected and sensitive species at PCMS, but it treats sensitive species such as the black-tailed prairie dog as "pests," and endangered species, such as eagles, as "predators." The Draft CAB EA states that:

> The primary wildlife concern is the presence of black-tailed prairie dogs on the [BAAF] airfield [Fort Carson] that attract several species of predators including eagles, hawks, and coyotes. Prairie dogs entering the airfield and adjacent areas would be lethally controlled or trapped and relocated. Phosphine gas would be used underground to minimize affects on non-target species. In addition, prairie dogs would also be shot with non-lead ammunitions so that predators or scavengers would not ingest lead. These actions are consistent with the Biological Assessment and Management Plan for the black-tailed prairie dog on Fort Carson and the PCMS (DECM, 2004). The black-tailed prairie dog plan was prepared in 2004 and specifically addresses prairie dog encroachment at BAAF: "[P]rairie dogs would be controlled if their presence threatens the safety of Army personnel, e.g., helicopter landing and refueling sites or aircraft runways. Sites where prairie dogs have threatened the safe operation of helicopter and fixed-wing aircraft include BAAF and dirt landing strips located downrange on Fort Carson." Prior to lethal control of prairie dogs, BAAF would be surveyed for the presence of the mountain plover and burrowing owl in accordance with state and Federal protocols. Deer

> discovered within the airfield area would be hazed in cooperation with the CDOW…

Exhibit 16 at 4.7-4. The Army refers to the black-tailed prairie dog on PCMS only as food for the bald eagle, golden eagle, burrowing owl, and ferruginous hawk. *Id.* at 4.7-3.

The PCMS and surrounding lands are suitable habitat for federally listed threatened or endangered plant or animal species, a federal candidate species, a species proposed for federal listing, and critical habitat for such species, including for example, the federally-endangered black footed ferret (one of the most endangered mammals in the world), the Colorado state-listed burrowing owl; the Mountain Plover, the bald eagle, the black-tailed prairie dog, the Swift fox and the Texas horned lizard. The black foot ferret was thought to be extinct until the discovery of a single specimen in Wyoming in 1981. Exhibit 110. Since then the Black Footed Ferret Recovery Program has been leading a captive breeding effort, while the number of ferrets in the wild has grown from 18 in 1985 to 1,000 today. *Id.* However, conservationists and federal wildlife officials have been unable to establish a population at a reintroduction site in northwestern Colorado, and hopes to release captive ferrets at Fort Carson have faded since Army officials "put the project on the back burner." *Id.*

Fort Carson announced the reintroduction plan to great fanfare in December 2008, but not long after deputy garrison commander Tom Warren was reassigned, and the military put the project on hold. *Id.* It has yet to be restarted. *Id.* According to the Colorado Springs Gazette, Col. Robert McLaughlin, the Fort Carson garrison commander who took over in June 2009, met with zoo staff in the fall of that year, but the ferret program has not been a priority. *Id.* When asked by a report if Fort Carson would consider ferret reintroduction, Col. McLaughlin replied: "I have not thought much about it, because right now we're focusing on the redeployment of the 3rd Brigade and the training of the 2nd Brigade." *Id.*

The Proposed Action includes the Central Flyway, which is one of the principal bird migration routes in the United States.[41] Some of the migratory bird species that travel over and near PCMS include, for example:

- Bald eagle (Federal Delisted/Monitor)
- Mountain plover (Proposed Threatened-Removed May 2011; CO – Species of Special Concern)

The Army states that: "CAB activities potentially affecting mountain plovers on Fort Carson are (1) overflights and (2) air to ground integration training." Since these CAB training activities will also take place at PCMS, the mountain plovers at PCMS will also be impacted. AARs have

[41] http://central.flyways.us/

clearly shown that past training at PCMS has caused vehicle-related mortality to many species, including the swift fox and Texas horned lizards (which were both candidate species for listing under the federal Environmental Species Act), and black-tailed prairie dogs. Exhibit 20 at 0019678, 0019753.

The bald eagle, formerly a threatened species listed pursuant to the federal Endangered Species Act ("ESA") but still protected under the Bald Eagle & Golden Eagle Protection Act, 16 U.S.C. §§ 668-668c), is known to be a winter resident of the PCMS. Exhibit 1 at 3-42. Instead of taking a hard look at the Proposed Action's potential impacts on the bald eagles that winter at the PCMS, the Army has taken the position that impacts will be "related to the availability of black-tailed prairie dogs as prey." *Id.* at 3-53. In the past, the Army has conceded that proposed training activities will cause a decline in prairie dog populations due to habitat destruction caused by off-road vehicles, mine plows, trench obstacles and live small arms fire. *Id.* at 3-49 to 3-50. Furthermore, the Army has admitted that "if prairie dog populations decline at the PCMS, bald eagles will most likely not use the installation for foraging." *Id.* at 3-57. Pesticides used to control prairie dog populations and lead contamination from live fire exercises may present a risk of secondary poisoning to bald eagles that eat contaminated prairie dogs. *Id.* at 2-4 (Attachment E.3). Helicopter and jet overflights will disrupt the eagle's feeding behavior and may cause the eagles to stop using the PCMS as winter territory. *Id.* at 2-8. The Army has not provided any other information that would allow agency decision makers or the public to evaluate the impacts the Proposed Action will have on bald eagles.

The Draft CAB EA and its predecessors have failed to provide adequate information to enable the public to determine if endangered or threatened species inhabit the PCMS. The Army has produced a list of endangered and threatened species that are known to occur in Las Animas County, noting that they "are not known to occur on the PCMS." *Id.* at 3-42. However, the document does not disclose or otherwise indicate that detailed surveys or other studies have been conducted to determine if these species occur on the PCMS. The Draft CAB EA simply states that "[a]ny mitigation measures for Federally-protected and sensitive species required as part of the proposed action for this EA would be determined, in concert with this NEPA process, through consultation with the USFWS." Exhibit 16 at 4.7-3.

The Army fails to include information from the AARs that clearly show damage and destruction of wildlife at the PCMS from past training. The AARs, however, contain reports including, for example, that of a Swift Fox (a candidate species for listing under the federal Endangered Species Act) being struck and killed by military traffic, and training personnel routinely ignoring flagging designed to prevent them from driving through an area containing a Swainson's hawk nest. Exhibit 20 at 0019638. Without sufficient information regarding whether endangered species occur on the PCMS, agency decisions makers lack sufficient information to fully evaluate the impacts either alternative may have on these species.

The Army also fails to disclose and analyze the impacts of training to wetlands on the PCMS. The Army states that:

> PCMS has approximately 361 acres (146 ha) of wetlands, a significant reduction to the 1992 estimate of 4,776 acres (1,933 ha) resulting from the administrative removal of the Purgatoire River section from Department of Army management to USFS management (Fort Carson, 2007c). Most wetlands on the PCMS are associated with side canyons and streams that are tributaries to the Purgatoire River and water developments.

Exhibit 16 at 4.7-3-4.6-4. The Army further states that:

> [A] study of wetlands on Fort Carson and PCMS concluded that training at these locations does not seem to degrade wetlands quality in any significant way, and few direct impacts upon wetlands from training are anticipated.

Id. at 4.7-5. The Army fails to reference the study of wetlands cited above, so it is impossible for the public to know the date of said study and the results of the study. Under cumulative effects, the Army states that:

> At PCMS, CAB training could potentially add to cumulative wetlands impacts, which would result from potential sediment inputs to wetland areas during increased training. Potential effects upon wetlands would be mitigated by implementation of the Erosion and Sediment Control Plan (Fort Carson, 1998) and other BMPs to protect wetlands, which should result in effects to be less than significant. A CAB stationing would result in adverse cumulative, but mitigable, effects to biological resources at Fort Carson and PCMS.

Id. at 4.7-7. It is arbitrary and capricious for the Army to conclude that direct and indirect impacts to biological resources at PCMS from the proposed action will be "less than significant," *id.* at 3-2, and that "[a] CAB stationing would result in adverse cumulative, but mitigable, effects to biological resources at Fort Carson and PCMS," *id.* at 4.7-7.

XIII. The Draft CAB EA fails to adequate disclose and analyze the impacts of the proposed action to cultural resources

The Draft CAB EA arbitrarily and capriciously concludes that there will be no significant impacts to cultural resources at the PCMS due to the Proposed Action, which includes air-ground integration training, stand-alone CAB training, and the use of UAS and UGV. There are

reportedly 4,163 archeology sites at the PCMS, of which 948 are eligible for listing on the National Register of Historic Places. In addition, the Santa Fe Trail runs through the area that will be impacted by low altitude flights, CAB training, and UAS training in the region.

In the past Fort Carson's cultural resources program has been ineffective at preventing significant impacts to cultural resources. The Army has repeatedly encroached upon historic areas and disturbed the cultural landscape, including the serenity of a rural viewscape. Helicopters do not mix well with serenity. The introduction of low altitude aerial training in the area of the Santa Fe Trail is a clear violation of national historic site eligibility principles outlined in legislation to protect areas of cultural and historic significance. Historical tourism is also an important economic factor in the region. The Draft CAB EA states that:

> Approximately 89 percent of PCMS has been inventoried for cultural resources, identifying 4,163 archaeological sites. Of these, 948 have been determined to be eligible for inclusion in the NRHP. The cantonment area, consisting of 1,660 acres (205 ha), at PCMS has been 100 percent surveyed for cultural resources and contains no sites eligible for inclusion in the National Register (Fort Carson, 2009). Five sacred site locations have been identified at PCMS, along with three TCPs and two Areas of Concern.

Exhibit 16 at 4.8-2. The Army further states that:

> As part of this alternative, the Army would increase its live-fire and maneuver/flight operations training activities at Fort Carson and PCMS. Impacts to cultural resources on Fort Carson and PCMS may occur as a result of stationing a CAB at Fort Carson because of an increase in training activities associated with the CAB.

Id. at 4.8-5. The Army attempts to minimize the impacts of the increased training of the proposed action by stating that "[i]mpacts to cultural resources from training are historically associated with mechanized maneuver and are not anticipated to be significantly affected by CAB training operations at Fort Carson or PCMS." *Id.* at 4.8-5. Contrary to the Army's claim, the cultural resources at PCMS will indeed be significantly impacted by CAB training operations at PCMS. The Army states that "[t]raining by mechanized ground units at PCMS would not exceed a total of 4.7 months per year," but the Army also states that:

> CAB units stationed at Fort Carson would utilize PCMS to conduct some aviation unit training. A majority of flight hours conducted at PCMS would be associated with training in support of air-ground integration training exercises at the battalion and brigade levels.

Id. at 2-11. According to the Draft CAB EA, "an aviation task force consisting of approximately one third of the CAB (900 Soldiers, 40 helicopters, and 250 wheeled support vehicles) would deploy from Fort Carson to PCMS 1 time per year for each BCT stationed at Fort Carson." *Id.* at 2-12.

There are many problems with the Army's conclusion that cultural resources are not anticipated to be significantly impacted by CAB training operations at PCMS. First, under the Proposed Action, even training by mechanized ground units at PCMS for four months per year will cause significant and totally destructive damage to the cultural resources at the PCMS. The Army failed to take the required "hard look" at the environmental consequences of the proposed action by ignoring evidence contained in its own AARs, which amply demonstrate that historical training alone has caused severe environmental damage at the PCMS. Exhibit 20. Proper consideration of the AARs in the PCMS Transformation EIS, Transformation EA, and this CAB EA would have confirmed that the Proposed Action will significantly affect the quality of the human environment at the PCMS.

After each training rotation, Army land managers have been required to "conduct after action reviews to evaluate possible damage from training exercises." Exhibit 1 at 2-14; *see also* Exhibit 109 at 12 ("[a]ll Fort Carson units training at PCMS will submit closing reports upon closing at PCMS and upon return to Fort Carson."). Prior to 2010, the first AAR for the PCMS evaluated a training rotation between July 29 and August 28, 1985, and the last a rotation between April 5 and May 11, 2002, creating a seventeen year record of AARs. Exhibit 20. These AARs prove that even limited maneuver training at the PCMS caused unnecessary, significant and irreparable damage to natural and cultural resources. *Id.*

The AARs reveal ongoing damage to archaeological and architectural sites, historic ranches, rock art, and Native American ceremonial and religious sites. In 1987, the Army acknowledged "the potential for significant future losses to both the cultural resources and the Command's credibility may result through continuation of these unauthorized activities." *Id.* at 0019501. Although the Army claimed that "management efforts will continue which are designed to provide for legal compliance as well as site preservation where applicable," *id.* at 0019581 & 0019755, vehicular intrusions into off-limits and restricted areas continued to cause unnecessary damages in each and every of the seventeen years (1985-2002) for which AARs were produced between 1985 and 2002. *Id.* at 0019419-21, 0019754.

The AARs provide the Army's admission that its command have consistently failed to comply with regulatory requirements or conserve natural and cultural resources at PCMS. In 1985, the Army stated that its PCMS Environmental Program was "designed to insure compliance with all regulatory requirements" and "to fulfill the management commitments published in the" original PCMS Acquisition EIS. *Id.* at 0019410. The Army candidly admitted that "we did not adequately or satisfactorily comply with those 'standards of training' which we

have for years been expressing to the concerned citizenry of Colorado and the Congress of the United States." *Id.* at 0019427.

Between 1985 and 2002, the Army reported in the AARs that "[t]he cumulative impacts to the resources of the PCMS will continue to be evaluated and potentially mitigated with each future training rotation. If we can eliminate the continuance of unnecessary resource impacts which are totally destructive in nature, then this management program should prove scientifically and functionally satisfactory." *Id.* at 0019443, 0019757-58 (emphasis added). During the first seventeen years during which AARs were generated, however, the Army consistently failed to fulfill the management commitments published in the original PCMS Acquisition EIS, and never did eliminate "unnecessary" impacts which were "totally destructive in nature." *Id.*

In addition, under the Proposed Action, an aviation task force consisting of approximately one third of the CAB (900 Soldiers, 40 helicopters, and 250 wheeled support vehicles) would deploy from Fort Carson to PCMS 1 time per year for each BCT stationed at Fort Carson. Exhibit 16 at 2-12. The AARs provide the best, and indeed apparently the only, baseline information that is available for study – a seventeen year detailed record of direct observations of severe impacts caused by mechanized maneuver training involving tracked and wheeled vehicles – use that will increase if the Proposed Action is authorized. Exhibit 12 at 7 ("maneuver (or mechanized) training involves tracked and wheeled vehicles and engineer equipment moving throughout a maneuver area as required by the training mission, which, clearly, has the potential for significant environmental impacts").

In the Draft PCMS Transformation EA, the Army admitted that last year's Warhorse Rampage training exercise caused significant damage to cultural resources located on the PCMS:

> In late summer 2010, the 2nd BCT conducted the first relatively large-scale maneuver exercise at the PCMS in a number of years. Unfortunately, that exercise revealed a number of flaws in Ft. Carson's exercise of its responsibilities with regard to protection of historic properties, including identification of the exercise as an undertaking, pre-exercise consultation with the requisite parties, coordination between the maneuvering units and cultural resources personnel, and marking and protection of historic properties.

Exhibit 12 at 24. During December 2010, the Pueblo County Cmmissioners sent a letter to the Advisory Council on Historic Preservation ("ACHP"), asking the federal agency to intervene and oppose the Army in conducting further training at the PCMS. Exhibit 111. The letter states that maneuvers at the PCMS "endanger historic artifacts" and that the Army's use of PCMS has "demonstrated a pattern and practice of repeated violations of the National Historic Preservation

Act." *Id.* The ACHP sent similar letters questioning the Army's cultural resources program on January 28, 2011 and March 18, 2011. Exhibit 112.

After the Warhorse Rampage training exercise, N1MA! asked archaeologist Jon Horn, who has worked extensively at Picketwire, to review the 2010 AAR. *See,* Exhibit 58. Mr. Horn compared the information in the AAR to information about the 39 sites available on the Colorado Historical Society's COMPASS database and the results of his investigation are reproduced in the table attached to his report. Exhibit 113. First, the report notes that the table included in the AAR is misleading in that it incorrectly uses the term "Historic Properties" to refer to sites that are not eligible for inclusion on the National Register of Historic Places ("NRHP") as defined under the NHPA. *Id.* The report then points out more serious concerns:

> [S]ome clearly inappropriate approaches to the damage assessment have been done. In the course of doing a damage assessment to NRHP eligible or potentially eligible sites, it is very inappropriate to do reevaluations of site significance. This is particularly egregious at sites 5LA3048, 5LA3221, and 5LA8071, which are Officially Eligible sites that are now being recommended as Not Eligible, at sites 5LA3254, 5LA3332, 5LA3423, 5LA4950, 5LA5421, and 5LA9037 that were recommended in the field at the time of their original recording as Eligible and are now being revaluated as Not Eligible, and at sites 5LA2317, 5LA2367, 5LA5290, and 5LA5723 that were recommended in the field at the time of their original recording as needing additional data before an evaluation could be made that are now being reevaluated as Not Eligible.

Id. The report observes that "in situations where sites have been disturbed and the affect of the disturbance must be assessed, which is the case with the 39 sites impacted by the Warhorse Rampage training, it is very difficult to fully understand what the true nature of a site was prior to disturbance." *Id.* As a result, the report concludes that "to make blanket statements that 'no adverse effects on recoverable archaeological data' has taken place is not provable and should not be taken at face value," as is "the case for the blanket statement 'no features affected.'" *Id.* Moreover, the report criticizes the authors of the AAR for not stating "under what criteria the sites were considered NRHP eligible." *Id.* The report notes that:

> [S]everal of the sites seem to be from the historic period and may have architectural elements that may be significant under Criterion C. It is also possible that Criterion A may be involved at historic sites (and perhaps some of the prehistoric sites, too). Knowing under which criteria the sites are considered significant is important in evaluating effects and appropriate mitigation. Consideration of NRHP criteria is not apparent in any of the assessments that are presented.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 107 of 123

Id. The report also criticizes the "Management Recommendation/ Resolution of Effects" section of the ARR. *Id.* According to the report, "damaged sites should already have been mapped and monitored, and marking is, at this point, water under the bridge and is perhaps not appropriate or desirable on a permanent basis if protection from looting and vandalism is a concern." *Id.* The report concludes:

> In summary, the complete inadequacy of recommendations for mitigation of the impacts due to the Warhorse Rampage training is inappropriate. It is possible that damages to sites may not have been fully apparent during the damage assessment because of the degree of disturbance, so were downplayed as inconsequential. The conclusions of the Army's cultural staff need to be independently verified using the previous site recordings as the baseline. It is possible that the cultural staff at Fort Carson/Pinyon Canyon may have been under pressure to downplay the site damages and may welcome outside expertise. If sites have been damaged to the point where they are no longer considered to have data recovery potential, which may be the case on sites that previously were thought eligible and are now recommended not eligible (despite blanket statements that the training did not really affect the sites), a closer look would seem appropriate and, if true, off-site mitigation may be an approach to consider.

Id. Thus, Warhorse Rampage has exposed the failure of Fort Carson's programs and policies for the protection of cultural resources at the PCMS. Section 106 of the NHPA requires federal agencies to consider the effects of any proposed action on resources listed or eligible for inclusion in the NRHP. 36 C.F.R. § 800.5(1). In order to comply with section 106, the military must: (1) identify historic resources that may be impacted; (2) determine if any historic resources in the project area are eligible for listing; (3) determine what effect the proposed activity will have on eligible historic resources; and (4) attempt to resolve or mitigate any adverse effects to eligible historic resources. The agency must consult with the State Historic Preservation Officer ("SHPO"), Native American tribes, and members of the public during the section 106 process.

Unfortunately, these "flaws" in the Army's cultural resources stewardship do not reflect a recent, or limited, problem. For a number of years, the Army has not been in compliance with its Memorandum of Agreement ("MOA") with the ACHP and the Colorado SHPO regarding management of cultural resources at PCMS. This MOA was implemented in 1980 when the lands for the PCMS were being acquired by the Army for the maneuver site and covers Fort Carson and "any additional lands that may be acquired." The MOA stipulates that cultural resource work be conducted under the supervision of a professional satisfying the requirements of 36 C.F.R. § 1210, Appendix C, and that the Army must ensure compliance with the Archaeological Resources Protection Act of 1979 ("ARPA"). In addition, the Army agreed to

provide "all scopes of work, reports, plans, or other products" resulting from these compliance activities to the Colorado SHPO for review and comment. It also put into place procedures for establishment and operation of a Historic Preservation Program for Fort Carson and the PCMS. Over the last 15 years, the Army has not submitted the required documentations and reports relating to their cultural resource activities at the PCMS.

The PCMS Transformation EA discloses that "[i]n 2007, Fort Carson's Garrison Commander made the decision to comply with Section 106 of the National Historic Preservation Act (NHPA) through implementation of the Army Alternate procedures (AAP) in lieu of" its own regulations at 36 CFR Part 800. Exhibit 12 at 23. The decision later proved to be irresponsible. After the Warhorse Rampage exercise concluded, Fort Carson "determined that military training constitutes an undertaking in accordance with Section 106 of the National Historic Preservation Act (NHPA), and as such is subject to review and consultation under 36 CFR 800." Exhibit 58 at 1. The Army admits that Section 106 consultation was not conducted prior to the commencement of Warhorse Rampage. *Id.* The Transformation EA reports that the 2010 Warhorse Rampage exercise "revealed a number of areas for improvement in Fort Carson's exercise of its responsibilities with regard to protection of historic properties, including identification of the exercise as an undertaking, pre-exercise consultation with the requisite parties, coordination between the maneuvering units and cultural resources personnel, and marking and protection of historic sites." Exhibit 12 at 32. Although Fort Carson promises to fix the flaws of its cultural resources protection programs in the future, these assurances ring hollow when considered in light of the history of severe damage documented in all of the AARs.

The evidence of impacts from Warhorse Rampage directly refutes the Army's claim that no significant impacts will be caused by the increased training at the PCMS under the Proposed Action. Fort Carson's ICRMP has not been updated since 2002. The entity charged with administering the cultural resources program – DECAM – was administratively dissolved by the Army in 2007. Although the Army has lately begun sending out Section 106 Consultation Letters, in the past consultation has not occurred until after impacts have already been identified. Congress did not intend for agencies to use the Section 106 process to validate the destruction of cultural resources with no environmental analysis under NEPA. Therefore, the Army's finding that the increased training will have less than significant impacts to the environmental and cultural resources at PCMS is arbitrary and capricious and fails to meet the standards of environmental review and public disclosure in NEPA.

XIV. The Proposed Action Will Cause Significant Impacts To Water Resources

The Army attempts to minimize the impacts of the proposed action on the water resources at, adjacent to, and downstream from the PCMS. The Army states that:

> PCMS is located in the Arkansas River basin. The majority of the drainages at PCMS flow into the Purgatoire River. The 2008 and 2010

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 109 of 123

> EPA waterbody report for Purgatoire River North, South, and Middle Forks listed this segment as impaired by Se.

Exhibit 16 at 4.6-2. The "waterbody report" that the Army is carelessly referring to is actually the Section 303(d) List of Impaired Waters issued by the government pursuant to the Clean Water Act. According to the United States Environmental Protection Agency ("EPA"):

> The goal of the Clean Water Act (CWA) is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. §1251(a)). Under section 303(d) of the CWA, states, territories, and authorized tribes, collectively referred to in the act as "states," are required to develop lists of impaired waters. These are waters for which technology-based regulations and other required controls are not stringent enough to meet the water quality standards set by states. The law requires that states establish priority rankings for waters on the lists and develop Total Maximum Daily Loads (TMDLs), for these waters. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards.[42]

The Purgatoire River is "Listed" for Se (selenium) and on the "Monitoring and Evaluation" List for Sediment in Colorado's 2010 Section 303(d) List of Impaired Waters and Monitoring and Evaluation List.[43] The Army fails to disclose and analyze the adverse impacts of selenium on aquatic species. According to the USGS, "[s]elenium is a trace metal that bioaccumulates in aquatic food chains and has been known to cause reproductive failure, deformities, and other adverse impacts in birds and fish, including some threatened and endangered fish species. USGS Colorado Water Science Center Characterization of selenium concentrations and loads in select tributaries to the Colorado River in the Grand Valley, Western Colorado (2007).

The Draft CAB EA states that:

> As described in the Installation's INRMP, Fort Carson and the PCMS have some of the highest naturally-occurring documented levels of Se in the U.S. (Fort Carson, 2007c). Evidence of the Se being naturally-

---

[42] See, U.S. EPA. Overview of Impaired Waters and Total Maximum Daily Loads Program, available at http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/intro.cfm#section303.

[43] CDPHE Water Quality Control Commission, 5 CCR 1002-93, Regulation #93, Colorado's Section 303(d) List of Impaired Waters and Monitoring and Evaluation List (April 30, 2010), available at http://www.cdphe.state.co.us/regulations/wqccregs/100293wqlimitedsegtmdlsnew.pdf

> occurring was confirmed via a recently-completed site wide Se study, the results of which were coordinated with and concurred on by the CDPHE (CDPHE, 2011), as documented in Appendix B. Naturally-occurring Se can acutely and chronically impact both aquatic and terrestrial wildlife when land disturbances, such as military mechanized maneuvers and excessive erosion, occur.

Exhibit 16 at 4.5-2. The Army also states that:

> Contributing factors leading to soil erosion at PCMS are much different than those at Fort Carson. Soil erosion caused by water typically is a result of larger storms (more than 0.5 inches [1.27 cm]), which occur on an average of less than 6 days per year in any given year; however, the fine and silty nature of some of the predominant soil types and the dry conditions mean that PCMS is more susceptible to wind-based erosion rather than water erosion for most of the year, with the exception of a limited number of days of heavy rainstorms. Extensive overgrazing (prior to 1983), vegetation removal, and soil compaction from mechanized training have contributed to erosion and erosion potential.

Id. at 4.5-3 (emphasis added). The Army further states that:

> Historically, PCMS has contributed highly variable levels of sediment/surface soil to the Purgatoire River Basin, ranging from 20,000 tons to several hundred thousand tons of sediment and soils (Stevens, et al., 2008). This level of sediment contribution to the river basin system is highly dependent on the variable rainfall and patterns the region receives (both total frequency of storms, their size, and amount of precipitation; amount of maneuver training and maneuver damage; and the Army's internal land management, environmental, and training management programs. As discussed in Section 4.5.1.1.2, PCMS implements erosion and sediment control plans as part of the Army's management of PCMS lands.

Id. at 4.5-3 (emphasis added). The Army states that "Ideally, battalion and brigade maneuver training would primarily occur at PCMS, within established limits, to help alleviate overcrowding at Fort Carson." *Id.* at 2-9. The Army further states that:

> For the purposes of this analysis, it has been assumed that an aviation task force consisting of approximately one third of the CAB (900 Soldiers, 40 helicopters, and 250 wheeled support vehicles) would deploy from Fort

> Carson to PCMS 1 time per year for each BCT stationed at Fort Carson. This aviation task force would provide approximately 2 weeks of support for each BCT brigade-level maneuver rotation. There are four Active Component BCTs stationed at Fort Carson. Accordingly, 8 weeks (2 months) of aviation task force support of BCT level maneuvers at PCMS have been assumed to be required each year in order to support air-ground integration operations at the brigade level.

Id. at 2-12 (emphasis added). The Army further states that:

> In addition to supporting brigade-level training, the CAB would support some battalion-level ground unit training with smaller aviation elements. Again, per doctrinal requirements, this training would consist of up to 10 aircraft deploying to PCMS 5 to 6 times per year for up to 10 days each time (up to 2 months). Aviation support at PCMS would also include flights to these sites to support special forces and infantry unit insertions and equipment sling-loading operations at the team and squad level. CAB units would also conduct their own aviation unit collective training apart from ground units at Fort Carson and PCMS to maintain proficiency of flight skills.

Id. at 2-12. The Army admits that "[t]he increased ground maneuver training at PCMS is likely to result in increased soil erosion..." *Id.* at 4.6-3. And, the Army states that:

> Additionally, at Fort Carson and PCMS, increased training could result in increased surface water sedimentation. With the implementation of current and future BMPs, the potential increase in sedimentation, additional naturally occurring Se into surface and/or groundwater, and pollutant discharges into the environment would be negligible or less than significant. No significant impacts are expected to occur to surface water, stormwater, floodplains, hydrogeology, or groundwater as a result of this CAB stationing decision.

Id. at 4.6-3. The Army also failed to disclose and analyze the potential for release sediment-derived nutrients to the Purgatoire River.[44] This is significant because in June 1998, EPA published the National Strategy for the Development of Regional Nutrient Criteria. Exhibit 114. The National Strategy specifically states that the EPA will establish nutrient criteria that reflect the different types of water bodies and different ecoregions of the country. Every state in the

[44] www.sccwrp.org/ResearchAreas/Wetlands/WetlandEcologyAndBiogeochemistry/EstuarineSedimentBiogeochemistry/SedimentsAsANon-PointSourceOfNutrients.aspx

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 112 of 123

United States is mandated by the U.S. EPA to develop nitrogen and phosphorus (nutrient) water quality criteria. The Army fails to consider and evaluate the new proposed nutrient (nitrogen and phosphorus) water quality standards for Colorado. The Draft CAB EA fails to consider the new Colorado proposed nutrient (nitrogen and phosphorus) water quality standards. Cost estimates to remove nitrogen and phosphorus by upgrading wastewater treatment plants in the United States could exceed $54 billion. Costs for small communities to remove nitrate from drinking water can also be significant. It is clear that the adverse impacts of the Proposed Action to water resources, human health, and the economy will be significant.

Based on the Army's statement that "[h]istorically, PCMS has contributed highly variable levels of sediment/surface soil to the Purgatoire River Basin, ranging from 20,000 tons to several hundred thousand tons of sediment and soils" and recognition that this is dependent on rainfall and "amount of maneuver training and maneuver damage" and that "the increased ground maneuver training at PCMS is likely to result in increased soil erosion," Exhibit 16 at 4.5-3, and taking into account the Army's planned CAB training at PCMS four times per year with 900 soldiers, 40 helicopters, and 250 wheeled support vehicles, *id.* at 2-12), it is arbitrary and capricious for the Army to claim that "the potential increase in sedimentation, additional naturally occurring Se into surface and/or groundwater, and pollutant discharges into the environment would be negligible or less than significant."

XIV. The EA fails to adequately disclose or consider potential impacts to land use at PCMS.

The Army claims that "CAB operational requirements would not change land use designated for training areas at PCMS." Exhibit 16 at 4.2-2. To the contrary, the land uses will significantly change the land use at PCMS. The Army states that:

(1) the proposed action will include a "Troop-Level Increase. Accommodate an overall increase in Soldiers who would work, live, and train at ... PCMS. Under the proposed action, approximately 2,700 CAB Soldiers would be stationed at Fort Carson." *Id.* at 2-4.

(2) [t]raining under the proposed action would occur throughout ... PCMS, to include regional airspace, in accordance with the sustainability of the land for different training activities (e.g., live-fire or maneuver/flight operations). *Id.* at 2-5 (emphasis added).

(3) increased training may result in reduced hunting opportunities. *Id.* at 3-5.

(4) the proposed action will include "Live Fire and Maneuver/Flight Operations Training to include air-ground integration training with ground maneuver BCTs." *Id.* at 2-5.

(5) the proposed action includes an increase in live-fire training, involving both munitions and explosives, large caliber weapons systems, collective live-fire training, diving-fire tasks (*id.* at 2-9), and low level flying modes. *Id.* at 2-10.

(6) The proposed action is for stationing of a Heavy CAB. The Army states that "[t]he CAB to be stationed at Fort Carson would consist of approximately 2,700 Soldiers and 113 helicopters. The CAB would be a Heavy CAB that would have UH-60 Black Hawks (medium lift helicopters), AH-64 Apaches (attack helicopters), and CH-47 Chinooks (heavy lift helicopters). The difference between a Medium and Heavy CAB is that a Heavy CAB has more attack helicopters (i.e., the AH-64D), giving it more fire-power. Additionally, the CAB would maintain and operate between 600 to 700 wheeled vehicles and trucks to support aviation operations, such as logistics and troop transport, maintenance, and supply…The CAB consists of: a headquarters and headquarters company (HHC), two attack reconnaissance battalions (ARB), an assault helicopter battalion (AHB), an aviation support battalion (ASB), and a general support aviation battalion (GSAB)." *Id.* at 2-6.

In addition, the Army reports that there will be 'increased' land use. "CAB operations would result in increased use of those ranges that enable training of CAB Soldiers in individual skills, units on collective tasks, and different levels of units through multi-echelon training." *Id.* at 4.2-2.

The Army states that "[a]lthough CAB operations would increase the use of those ranges needed to train the CAB, the cumulative effects of range usage has the potential to be reduced should the Army's planned reduction in forces (DefenseNews, 2011) result in a decrease of any BCTs currently stationed at Fort Carson. Any such decreases, however, are not reasonably foreseeable at this time and are therefore not taken into account in this analysis." *Id.* at 4.2-3.

The Proposed Action will unreasonably interfere with neighboring property owners' peaceful enjoyment of their airspace rights and rural lifestyle. The Draft CAB EA describes Nap-of-the-Earth ("NOE") flights which would occur well beyond the current boundaries of the maneuver site. NOE flights are "conducted at varying airspeeds as close to the earth's surface as vegetation and obstacles permit." In many cases this will result in flights as low as 50' to 300' AGL over the PCMS and surrounding public and private lands. Flight routes and areas are identified in the Draft CAB EA between Fort Carson and PCMS as well as in areas to the north and south of the maneuver site.

The PCMS and surrounding region contain thousands of archaeological sites that document many thousand years of human habitation. Exhibit 2 at 3-71 to 3-72. The adjacent Picket Wire Canyonlands in the Comanche National Grassland, which contain the largest documented dinosaur trackway in North America dating back 165 million years, consist of over

16,700 acres of land that were transferred by Congress from the Army to the U.S. Forest Service in 1990 "to conserve and protect the paleontological, archaeological, wildlife, vegetative, aquatic, and other natural resources of the area." Pub. L. No. 101-510, § 2825, 104 Stat. 1485 (Nov. 5, 1990); Exhibit 42 at 0018934. The Comanche National Grasssland is the largest expanse of land set aside for recovery from the dust bowl. These critical public lands contain rich and unique troves of biodiversity and geological treasures. The Mountain Branch of the Santa Fe Trail passes through the south part of the PCMS and parallels State Highway 350 along the Timpas Creek drainage. Exhibit 2 at 0000371. The Proposed Action, in concert with the Army's other illegal Transformation training activities at the PCMS, will cause irreparable harm to these important historic and cultural features of the region.

The Supreme Court has ruled that the airspace above private property up to 500 feet AGL belongs to the surface owner. With wind energy generation becoming a high priority for the region, these property rights are increasing in value. An invasion of this airspace by the military constitutes an illegal trespass of private property and a taking. If the military is allowed to go forward unchallenged with these extremely low-altitude flights, wind energy projects in the region will become an impossibility. Just as people in the past have lost their land, water, and sub-surface minerals, southeastern Colorado is in danger of losing another valuable piece of private property and privacy.

XV. The Proposed Action Will Cause Significant Noise Impacts

The Army attempts to minimize the impacts of noise at and surrounding the PCMS by claiming that:

> [N]oise-sensitive locations adjacent to PCMS consist of a limited number of residences around the Installation periphery. The primary sources of noise at PCMS are short-term military training exercises at the small-caliber weapons ranges and from military aircraft operations at the combat assault landing strip by C-130 aircraft. Large-caliber weapons are not fired at PCMS. The Noise Zones for aircraft activity at PCMS do not extend beyond the boundary. The existing small arms Zone II [PK 15(met) 87 dB] extends beyond the western boundary less than 2,132 feet (650 meters [m]. Noise Zone III [PK15(met) 104 dB] does not extend beyond the Installation boundary.

Exhibit 16 at 4.4-3. However, the Army is attempting to minimize the noise from existing small arms training at PCMS by showing the noise level in Zone II to be 87 dB, when in fact, the noise level for Zone II ranges from 87-104 dB and noise level Zone III is 104 dB versus >104 dB as shown in Army Table 4.4-1. *Id.* at 4.4-1.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 115 of 123

The Draft CAB EA states that "[t]here would be an increase in the frequency of use" of small arms ranges, but again attempts to minimize the impacts by stating that "the additional small arms activity due to CAB stationing would not change the size of the noise contours at Fort Carson or PCMS." *Id.* at 4.4-5. In fact, the noise impacts from the increase in the frequency of use of the PCMS from small arms training at noise levels of 87 dB and >104 dB will be significant, not only on the PCMS, but also to residents, wildlife, and domestic animals in the area surrounding the PCMS.

The Army focuses on noise-sensitive locations, such as housing, schools, and medical facilities. However, the Army completely fails to address the noise impacts to wildlife, domestic animals, and cultural resources not only at PCMS, but also for military flights in route to and from the PCMS. The Army also uses day-night average noise levels that are based upon human hearing and does not consider the noise level impacts specific to wildlife and domestic animals. According to a Wildlife Noise Impact Assessment by Pater, et al. (1999):

> The potential impact of noise on wildlife is a topic of concern (Grubb and Bowerman 1997, Hayden et al. 2002, Pater and Delaney 2002, Lawler et al. 2005) because of federal mandates such as the Endangered Species Act and the National Environmental Policy Act and because the nature of anthropogenic noise is complex and pervasive (Grubb and King 1991, Grubb et al. 1992, Bowles 1995, Larkin et al. 1996, Delaney 2002). Noise impacts on terrestrial animals can take many forms, including changing habitat use and activity patterns, increasing stress response, decreasing immune response, reducing reproductive success, increasing predation risk, degrading conspecific communication, and damaging hearing if the sound is sufficiently loud (Bowles 1995, Larkin et al. 1996). Noise that can potentially impact wildlife populations include sources such as recreational (Brattstrom and Bondello 1994, Knight and Gutzwiller 1995, Swarthout and Steidl 2001) and commercial activities (Holthuijzen et al. 1990, Grubb et al. 1998), vehicle traffic (Benson 1995, Delaney and Grubb 2003), and military training operations (Guyer et al. 1995; Delaney et al. 1999, in press; Krausman et al. 2004). Valid research conclusions are important for guiding appropriate decisions regarding wildlife management and restrictions on human activities (Awbrey and Hunsaker 1997; Delaney et al. 1999, in press; Krausman et al. 2004).[45]

---

[45] Pater, et al. 1999. Recommendations for Improved Assessment of Noise Impacts on Wildlife. The Journal of Wildlife Management 73(5), http://www.fs.fed.us/rm/pubs_other/rmrs_2009_pater_l001.pdf

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 116 of 123

The Draft CAB EA also fails to address the impacts of off-road vehicle noise on wildlife. According to a report prepared by Wildlands CPR:

> ORV noise can cause significant adverse impacts to wildlife in at least two ways. First, exposure to ORV noise can result in hearing impairment or even loss, with severe consequences for animals dependent on their sense of hearing for finding prey, avoiding predators, and interacting with other individuals of the same species. Second, wildlife exposed to ORV noise often experience stress and other disturbance effects. Overtime, such impacts can lead to altered movement patterns, behavioral changes, and long-term stress impacts, all with potentially significant adverse results.[46]

The Army fails to address the impacts of noise from military aircraft on the PCMS and on route to and from the PCMS. Loud noise from low flying military aircraft at PCMS and en route to and from PCMS, as well as air to ground training maneuvers at PCMS will undoubtedly startle wildlife and domestic animals. When animals experience overflights their heart rates are increased, the animals may not feed normally. Both wildlife and humans may experience fear and panic when a low-flying military aircraft flies over. Loud noise from military aircraft will significantly impact domestic animals, such as cattle and horses, and interfere with people's ability to enjoy and use private and public properties on route to and from the PCMS. The Army states that:

> A majority of aviation operations at PCMS would be conducted to support ground operations that would have otherwise occurred without aviation support. Since the helicopter activity is dispersed over a vast region, the low number of aircraft operations utilizing the airspace would not generate A-weighted day-night average level (ADNL) noise contours of 65 A-weighted decibels (dBA) or greater.

However, the Draft CAB EA fails to address and compare the sound levels of the proposed action to ambient sound levels. For example, Day-Night Average Sound levels for wooded residential land is 52 dBA, for agricultural crop land is 44 dBA, for rural residential land is 39 dBA, and for wilderness areas 35 dBA.[47]

---

[46] Wildlands CPR, December 31, 1999. The Impacts of Off-Road Vehicle Noise on Wildlife. http://www.wildlandscpr.org/road-riporter/impacts-road-vehicle-noise-wildlife

[47] Day and Night Sound Level, The Engineering Toolbox, www.engineeringtoolbox.com/sound-level-d_719.html

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 117 of 123

According to the Army, noise generated by aircraft operations would not contribute to overall noise levels exceeding 65 dBA or greater. However, comparing this noise level with ambient noise levels in the proposed flight routes to and from PCMS and in training areas at PCMS, the noise impacts from aircraft operations will be significant. Most overflights will occur over sparsely populated areas so the areas that will be impacted will be very quiet and the corresponding impacts much greater.

The Army also fails to disclose the noise impacts of flights or training at night. Using a DNL as the basis for analyzing noise impacts is improper for missions flown at night. In general, noise levels are much lower at night than during the day, meaning that the vast majority of lands that are subject to this training will have existing DNL that are much less than 45 db – rural ambient noise levels are usually between 20 and 30 db. If night noise levels were considered, the model would have predicted a much greater increase in noise level averages due to the overflights. In addition, the Army noise modeling does not take into account the cumulative noise increase associated with operations in en route flight areas and in the MOAs and MTRs that already exist today. The Draft CAB EA is inadequate because it fails to fairly characterize the existing baseline of noise in the affected environment so that the significance of the noise increases in this setting can be understood.

The Army's argument that noise will not cause significant impacts because "the helicopter activity is dispersed over a vast region" and "the low number of aircraft operations utilizing the airspace would not generate A-weighted day-night average level (ADNL) noise contours of 65 A-weighted decibels (dBA) or greater" lacks candor. Exhibit 16 at 4.4-5. According to the Army:

> [H]elicopter overflights would generate levels that some individuals might find disruptive and/or annoying. Individual helicopters may be audible as they travel from BAAF to a designated training area, such as PCMS. In total, it is estimated that up to one third of CAB flight time may occur at PCMS. As noted in Section 4.11.1.1, the area between Fort Carson and PCMS does not have established air corridors. The only restriction is that aircraft must maintain a minimum altitude of 500 feet above ground level (AGL) (152 m AGL) unless they are operating in a designated low-level or NOE training route; however, for training purposes, Route Hawk (see Figure 4.11-3 in Section 4.11.1.1) is often used as a means of transport between Fort Carson and PCMS. Utilizing Route Hawk allows for reporting in at designated checkpoints. Additionally, though not always used as such, Route Hawk is approved for NOE training. Currently Route Hawk is used approximately 20 days per month; however, utilization would still only approximate an average of eight daily flights along the route. If the eight flights all fly NOE (100 feet AGL [30 m AGL]), the

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 118 of 123

> ADNL would range from 57-60 ADNL, dependant on the type of aircraft. At 500 feet AGL (152 m AGL), eight daily operations would generate an ADNL of 50-55.

Id. at 4.4-7. According to the Army, NOE training flights are "conducted at varying airspeeds as close to the earth's surface as vegetation and obstacles permit." *Id.* at 2-10. In addition, "Route Hawk (Figure 4.11-3) is the low-level route that has been established between Fort Carson and PCMS for the purpose of conducting both day and night low-level tactical navigation operations." *Id.* at 4.11-2.

It is clear that the noise impacts from low altitude NOE training and low-level Route Hawk flights between Fort Carson and PCMS both day and night will be significant. There are new ways of examining noise inputs so that the effects on wild public lands, recreationists and native ecosystems can be better understood. As articles at the Acoustic Ecology website show,[48] there is increasing evidence that wildlife and humans are adversely affected by unnatural noise and noise pollution. The Army should not just pay attention to protection of noise sensitive areas such as housing, schools, and medical facilities. The noise evaluation must take into account the increases in localized noise in areas which have almost no non-natural background noises. Without a valid evaluation against the ambient baseline in rural and other areas in the proposed action, the noise evaluation is arbitrary and capricious.

Quietude is a valuable resource in the rural areas throughout the proposed action areas. Those seeking peace, quiet and solitude in a primitive and natural setting face an increasingly crowded world, and an ever-expanding industrialization, road building, and noise on public lands. Humans and animals can't hear as clearly with loud droning noises. Human perception of a pleasurable living and working experience is altered by noise. Humans live in and come to rural areas and lands for a pleasurable experience, not to cover their ears to try to lessen loud irritating droning military aircraft noise. While humans can still see beauty, the quality of the experience of beauty is diminished by disruptive or offensive noise. Thus, the quality of the rural experience will be diminished.

Animals may spend increased time looking for predators. They may hole up, and become less active with noise as it is more difficult to detect predators. Or it may be more difficult to detect food – for example –coyotes preying in mice under snow. Low altitude flights may cause birds to flush from nests – increasing the risk of bird-aircraft collisions and making the birds more subject to predation. Sage-grouse, pygmy rabbits, bighorn sheep, rare bats, and migratory birds will all be negatively impacted by the Proposed Action, both in the short and long term. What is the hearing range of affected animals? How intense will noise be within this hearing

---

[48] See, AcousticEcology.org/scienceresearch.html

range? How will various components of the military aircraft or other training-linked noise disturbances interfere with, or otherwise adversely affect, the displays, mating, calling, foraging communication, echolocation or other behaviors of migratory birds, sage-grouse, large and small mammals including bats? These questions were not adequately studied in the Draft CAB EA.

The Army also failed to disclose and analyze the noise impacts from military aircraft on domestic animals, such as cattle, horses, and fowl. According to one article on military aviation noise and its effects on domesticated and wild animals, "military operations can cause high levels of aircraft noise that can adversely affect the environment. Some of the most serious environmental consequences stem from low-altitude military training flights..."[49] "Research shows that exposure to this type of noise pollution can be stressful and harmful to the health of both humans and animals. For instance, domestic animals like horses, cattle, and fowl have shown stress responses to aircraft noise exposure. Furthermore, military training areas are often in remote regions, near U.S. wildlife refuges, national parks, and wilderness territories. Research by Defenders of Wildlife reports that "military overflights are one of the most harmful activities affecting national wildlife refuges. The concern is that low-level flights over wild animals may disturb natural physiological and behavioral responses that intern reduce those same animals' ability to survive." *Id.*

The sound from military aircraft activity can also cause archaeological resources and structures to vibrate. It can also cause contemporary structures to vibrate and windowpanes to shatter.[50] Simply because the noise level does not exceed some threshold, such as urban standards, does not mean that the noise does not impact Native American ceremonies or sacred sites.[51] Noise from aircraft and helicopters may adversely affect traditional ceremonies.[52] The Army's conclusion that the noise impacts from the proposed action will be less than significant, Exhibit 16at 3-2, is arbitrary and capricious.

---

[49] Armas, Nathalie M. 2004. *Military Aviation Noise and its Effects on Domesticated and Wild Animals.*

[50] *See* Hanson, C.E. 1991. "Aircraft Noise Effects on Cultural Resources: Review of Technical Literature," HMMH Report No. 290940.04-1, NPOA Report No. 91-3.

[51] *See generally* U.S. Department of the Interior, National Park Service, "Report on Effects of Aircraft Overflights on the National Park System" (July 1995).

[52] *See* Greider, Thomas. 1993. "Aircraft Noise and the Practice of Indian Medicine: The Symbolic Transformation of the Environment," Human Organization 52(1):76-82; Schoepfle, Mark. 1989.

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 120 of 123

XVI. The EA fails to adequately disclose or consider potential socioeconomic impacts to rural communities.

The Draft CAB EA admits that:

> Implementing the stationing of the CAB at Fort Carson would have no measurable economic effects within the PCMS ROI. PCMS is used only for training activities with little opportunity for local economic stimulus.

Exhibit 16 at 4.9-1. The Army further states that:

> At PCMS, aircraft noise and fugitive dust from training are potential impacts, which could affect the population near PCMS, which includes some minority Hispanic populations as well as some enclaves of economically disadvantaged populations.

Id. at 4.9-2. The Proposed Action will have profound impacts on the rural communities surrounding the PCMS. Las Animas, Huerfano and Otero counties have been impacted most heavily; approximately 44,000 people live and work in these counties. Southeastern Colorado is vital to agriculture in the region and has a rich history of ranching. Ranching and agriculture are the backbone of the local economy. In Las Animas County alone, there are more than 550 working farms and ranches. Much of the ranchland has been passed down through several generations.

The real estate market in southeastern Colorado has been depressed ever since the Army announced plans to expand the PCMS circa 2006 and increase the amount and intensity of military training at the site. Many generational family farmers have been pressured to sell their land. Since the local economy is closely tied to ranching, the loss of ranches would have devastating economic impacts on the surrounding communities. However, the Army did not include any analysis of the socioeconomic impacts to surrounding land owners and public lands held in the public trust as a result of damage that will be inflicted upon environmental and cultural resources at the PCMS. As little as 1/8 of an inch of dust blowing onto neighboring lands kills fragile prairie grasses; cumulative effects can cause tremendous hardship to generational ranch families as demonstrated by the Dust Bowl.

The Draft CAB EA also bypasses analysis of Environmental Justice outlined in Executive Order No. 12898. Training impacts – both historic and recent – result in disproportionate environmental and cultural loss to traditional peoples in the region. The threat of militarization has paralyzed the rural economy of southeastern Colorado for many years. The Pentagon's relentless pursuit of expanded training and land at Piñon Canyon has caused undue hardship across the region.

The Proposed Action will also create environmental problems for rural communities in the vicinity of the PCMS. The Proposed Action may lead to contamination of water resources with lead, petroleum products and other hazardous materials, rendering water unfit for agricultural or domestic use. The Proposed Action will cause noise that will startle and injure livestock that run through fences. Air pollution in the area will increase due to aircraft, vehicles, and an increase in training. The Draft CAB EA does not address any potential impacts to visual resources. Increased training activities will destroy vegetation and increase soil erosion, creating the potential for another dust bowl in the area. The Proposed Action will create extreme congestion problems on Interstate 25. Military convoys on U.S. 350 will essentially shut down traffic at 30-60 days a year or more unless passing lanes are constructed between Trinidad and the gate to the PCMS.

It is clear that there will be no socioeconomic benefits, and only significant adverse impacts of the proposed action within the PCMS Region of Influence. The cumulative impacts of this Proposed Action in conjunction with past Army actions from acquisition of the PCMS by adverse possession in the 1980s to significant and totally destructive damages to the environment, wildlife, domestic animals, cultural resources, and human health from training rotations at the PCMS from the 1980s to present are extremely significant. The impacts of militarization at the PCMS have been significant to the rural community over the past thirty years, and the impacts due to the increased use and intensity of the Proposed Action will be nothing less than devastating. The people in southeastern Colorado have a right to enjoy their private property and livelihoods and the Draft CAB EA did not address the impacts discussed above.

XVII. The Army fails to disclose and analyze the impacts from Traffic and Transportation of the Proposed Action

The Army attempts to minimize the impacts from traffic and transportation of the Proposed Action by stating that "[t]raffic impacts at Fort Carson and PCMS are anticipated to be less than significant." Exhibit 16 at 4.10-1, that "no significant impacts are expected as a result of convoy traffic between Fort Carson and PCMS," *id.* at 4.10-3, and that "[i]mpacts in the PCMS region are also anticipated to be less than significant as Soldiers will not be stationed at PCMS," *id.* at 4.10-4. However, the Army fails to disclose and analyze the impacts from traffic and transportation of the Proposed Action, including, for example, increased convoy traffic on existing paved roads between Fort Carson and the PCMS; impacts to regional traffic or rail transportation; air quality and noise impacts from increased convoy traffic; impacts to soils, such as compaction resulting from repeated vehicle passes and bivouacking, ruts resulting from tank pivot turns (turns from a stopped position), hull and turret defilades, and tank traps, and from mechanized vehicles and tracked vehicles; impacts to the roadway network; tactical movement at PCMS involving the use of terrain, cover and concealment, obstacles, and key avenues of vehicular movement through the terrain (also called trafficability) to target, engage, and destroy

the enemy; maneuver training at PCMS; dismounted training areas with impacts from foot traffic, bivouac activities, and emergency vehicles; impacts to wildlife; impacts to birds, including for example, the Burrowing Owl, the Mountain Plover; the Bald and Golden Eagles; small mammals, for example, the Black-tailed Prairie Dog, and large mammals; and sensitive plants; and from rail, aviation, and transit systems that serve the PCMS. Exhibit 2.

XVIII. Conclusion

For the reasons discussed above, the Draft CAB EA is inadequate and precludes meaningful disclosure and analysis of impacts. Chief among the deficiencies is the Draft CAB EA's failure to take a "hard look" at potential environmental, archaeological, historical and socioeconomic impacts. Impacts are often not disclosed, stated as obvious generalities without attempt at quantification or discussion, understated, or stated in a manner intended to mislead the public into believing they are insignificant. In fact, disclosure and discussion of the significance of the action's impacts on many resources are simply absent.

The Draft CAB EA does not disclose or make use of the best available scientific information to analyze impacts. Information relevant to reasonably foreseeable adverse impacts that is critical to the decision makers arriving at a reasoned choice among alternatives is not included in the Draft CAB EA. This includes data relative to ecological sustainability of maneuver activity. There is therefore no disclosure of how or why the decision makers will make a decision, *i.e.* no clear basis for choice among alternatives based upon impacts and their significance. In addition, mitigation is not adequately discussed for many resources and the Army has therefore failed to adopt mitigation measures adequate to reduce the impacts. The Draft CAB EA also does not rigorously explore and objectively evaluate reasonable alternatives as required by NEPA. Additionally, the Proposed Action will likely cause violation of the NHPA, the Migratory Bird Treaty Act ("MBTA"), and the Sikes Act. For all of these reasons, the Draft CAB EA does not discharge the Army's obligations at law and, accordingly, no further training or construction should occur on the PCMS.

For the reasons stated in this letter, N1MA! opposes any continued use or expansion of the PCMS. The Draft CAB EA and its predecessors are fundamentally flawed and violate the intent and plain language of NEPA in a myriad of respects. Therefore, the Army must withdraw the Draft CAB EA and immediately cease any training activity at the PCMS. 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.

Very truly yours,



Stephen D. Harris

U.S. Army Environmental Command
Re: Comments on Draft Fort Carson CAB EA
February 1, 2012
Page 123 of 123

Enclosure: Disk with Digital Exhibits (submitted with hard copy of the letter only)

ID: 281 Response

Thank you for your comments. To assist in providing an organized response to the 123-page comment letter, the Army has organized our response by each of the 20 Roman numeral sections and heading titles provided in the comment letter. (We note that, in numbering the sections of the comment letter, a few of the Roman numerals were repeated; for clarity, the Army has notated where this was done in our response.)

I. Introduction

The first ten pages of this comment introduce 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 under Section I.

The Army will respond to relevant substantive matters pertaining to the CAB stationing implementation and our lack of comment on any other matter is not intended to indicate our agreement or acquiescence to the commenter's point of view.

In general, the Introduction asserts that PCMS includes "undisturbed, pristine natural areas" and is "the last intact shortgrass prairie in the American Great Plains", and will be subject to "irreparable harm" by the proposed action. Additionally, in its conclusion, the commenter opposes "any continued use" and seeks that the Army "immediately cease any training activity at the PCMS".

There are a number of other protected grasslands within the near vicinity of PCMS. The PCMS has been utilized as an Army training and tank maneuver site, with integrated helicopter training, for over 25 years. Therefore, the cessation of all Army training activities at PCMS is not appropriately within the scope of analysis for this proposed action. The EA is about CAB training, not all existing training at PCMS. The commenter also raises a number of other issues outside of the proposed action and the Army will not respond to those issues herein.

II. History of Military Training at the PCMS

The recitation of the sequence of events and previous NEPA documents does not require a response or any adjustment to the EA.

III. The Irreparable Impacts of Transformation Training at the PCMS, Including Air-Ground Integration Training Using Unmanned Aerial Systems, Have Never Been Properly Disclosed or Studied by Fort Carson as Required by NEPA

As noted in the response to comment #1, the CAB that is being stationed at Fort Carson does not include a UAS company. No additional UASs will be stationed at Fort Carson as a result of the proposed action.

The commenter notes on page 23 of the comment letter that the proposed action would result in a higher number of annual helicopter flight hours at PCMS than historically analyzed or utilized. The Army acknowledges that possibility; indeed, analysis of the potential for increased helicopter operations, on PCMS and the entire Installation as a whole, is one of the purposes of this EA.

The Air Force has significantly restructured the Low Altitude Tactical Navigation (LATN) area training proposal, and it will not involve training in southeast Colorado.

Regarding the scope of the current court order, see Section IX of the response to this comment.

Please see the response to comment #270 regarding the Warhorse Rampage exercise.

IV. The Environmental Analysis in the Draft CAB EA is Invalid Because It Incorporates the Environmental Analysis from the PCMS Transformation EIS that Was Vacated By The U.S. District Court for Colorado in 2009

The environmental analysis in the CAB EA makes a significant and major departure from the analysis in the 2007 *PCMS Transformation FEIS*. The court rejected the maximum flexibility model and encouraged adoption of training parameters which were less vague and more concrete. The Army has followed the guidance delivered by the court and has explicitly adopted a specific, quantitative training limit for mechanized maneuver training, described below. For both the proposed action and for heavy mechanized maneuver training, the Army will employ the sustainable and interactive principles that allow for rest and recovery of the land through the Army's ITAM process and the gathering of objective, scientific, measureable data concerning training impacts.

The 2007 maximum flexibility model did not adequately describe the anticipated intensity of training activities at PCMS and did not explicitly demand scheduling in a manner that mandated rest, recovery, and restoration of the land.

Faced with a proposed departure from quantitative, established limits on training, the court noted how the Record of Decision (ROD) could have permitted use of PCMS for unlimited training, 24 hours per day, 7 days per week, 365 days per year, and that such intensity was not susceptible to meaningful mitigation. The Army has recognized the value of an objective limit and an explicit adoption of the principle of land rest and recovery. By adopting a hard cap on mechanized maneuver training, under which sustainable principles will be utilized and pursued, the Army believes we have met the intent of the court's decision.

Section 2.3.3.5 makes explicit this training limitation by saying, "Training by mechanized ground units at PCMS would not exceed a total of 4.7 months per year, a limit established in Fort Carson's 1980 *Draft and Final Environmental Impact Statements for Training Land Acquisition* (Fort Carson, 1980a, b). This total duration will continue to provide over 7 months total per year of rest and recovery time for PCMS training lands. The Army had previously proposed use of PCMS by CAB units, as detailed below, would not result in an increased use of PCMS by mechanized ground units above the 4.7 months originally analyzed in 1980."

The court vacated the ROD of the proposed 2007 *PCMS Transformation FEIS*. In so doing, the court did not invalidate all underlying factual information within the EIS. After a hard look to confirm its accuracy, some of the underlying factual information and analysis contained in the 2007 *PCMS Transformation FEIS* was utilized in the 2009 *Fort Carson Grow the Army FEIS*. That this factual information was included as part of a previous EIS that was found inadequate does not necessarily mean that it can never be referred to again.

We recognize that the level of aviation activities and flying hours in prior NEPA analyses for Fort Carson and PCMS is different than those proposed in this EA, and assessing the impact of this change is one of the purposes of this EA.

V. The Methodology Used by the Army in the Environmental Analysis is Arbitrary and Capricious Because It Is Not Based on Generally Accepted Scientific Principles

The Army appreciates the commenter's questions and concerns about the definition of the "baseline" for live-fire range utilization requirements. The "baseline" is defined as the total number of range days required to provide live-fire training for all Soldiers currently stationed at the Installation, to include those stationed at the Installation as a result of the 2005 BRAC law, and as analyzed in the 2009 *Fort Carson Grow the Army FEIS*. The current "baseline" is 5,783

live-fire range days, which represents the total number of live-fire range training days required by all Soldiers stationed at the Installation. As noted in Section 2.3.3.4 of the Draft EA, originally the increase in range utilization for live fire due to CAB stationing implementation was calculated to be 6.5 percent above the baseline.

The comment asserts that the Army methodology in determining the percentage of increased range utilization is arbitrary and capricious; in fact, the methodology is mathematical, although the original figure has been revised, as described below.

As a result of this comment, live-fire range utilization changes were carefully recalculated and it was determined that, in fact, a 7.5 percent increase in live-fire range utilization would be attributable to CAB stationing implementation. This is an increase of one percent over the 6.5 percent originally estimated in the 2011 *CAB Stationing PEIS* and re-stated in the draft of this document. Section 2.3.3.4 has been updated to reflect the more-correct 7.5 percent estimated increase in live-fire range utilization. The Army appreciates the comment, and the opportunity to clarify the estimated increase of live-fire range utilization due to the CAB.

The baseline Maneuver Impact Mile (MIM) for the entire Installation (both for Fort Carson and PCMS) used in the 2009 *Fort Carson Grow the Army FEIS* was 738,000. MIMs associated with the proposed CAB were 51,305, a number comparable with the CAB-associated MIMs of other Army installations where CABs have been stationed and are operational. As the MIM percent increase is low and as CAB wheeled vehicles would not constitute a significant impact on Installation lands since CAB wheeled vehicles would primarily operate on existing roads and two tracks, the Army does not believe a re-calculation of MIMs is necessary. MIMs are more useful and relevant in considering impacts from heavy mechanized maneuver, such as from tanks or other tracked vehicles, equipment that is not part of a CAB.

VI. There Are Objective Metrics That The Army Could Have Used to Analyze Impacts, But There Is No Mention of Them in Any NEPA Study Produced by Fort Carson Since 2006

The Army utilizes the Army Training and Testing Area Carrying Capacity (ATTACC) program to assist in managing the carrying capacity of training lands. ITAM and ATTACC programs utilize technological advances to monitor, analyze, and manage scientifically the land conditions, training trends, and carrying capacity of the training lands.

Regarding available training acres, the 131,064 acres identified in Table 2.9 of the 1980 Acquisition EIS is clearly a breakdown of expected acres for particular rotation cycles. By contrast, the acreage identified in the INRMP discussed the total acreage without reference to rest, rotation, and deferment cycles, which were addressed in detail later in that same document, at Section 4.7.2.

Regarding the 15,000 acres that were re-integrated into use: Those acres are part of what previously was called the Soil Protection Area in the north central part of PCMS. Analysis was indeed done. LCTA (the vegetation monitoring program under ITAM) collected data from that area, and compared it statistically to data from other areas on PCMS that have the same or similar soils, slopes, etc. but have been trained on since 1985. There was no significant difference. That conclusion was then reviewed by the Land Use Technical Advisory Committee (LUTAC) set up by the original EIS for Acquisition, and subsequently approved before the change was made.

Rest and recovery periods have occurred and are still occurring today, resulting in what is now known as “limited use areas”. Determining land availability after rest, rotation, and deferment is

an ongoing process, and when such process has had its intended effect, land is returned for training use.

VII. No Mitigation Can Prevent or Minimize the Significant Environmental Impacts That Will be Caused By Air-Ground Integration & CAB Training at the PCMS

The Army agrees that monitoring of mitigation strategies is essential. The proposed action will not increase mechanized maneuver. Land impacts from mechanized maneuver training are especially significant and the Army's ITAM process will monitor land impacts and advise on the need for rotation, rest, and recovery. The adaptive principles of ITAM monitoring are also enhanced by the 4.7 month limit on mechanized maneuver training described above in Section IV of the response to this comment.

The potential "unlimited use" scenario is the proposal for adaptive management, described above. Such use in no longer being considered as described in Section IV of the response to this comment.

Regarding the applicable Installation Natural Resources Management Plan (INRMP): The Sikes Act requires the INRMP be "reviewed as to operation and effect by the parties thereto on a regular basis, but not less often than every 5 years." Based on such review, a revision may be necessary, but the timeframe for publication of such revision is not mandated by the statute. Nevertheless, Fort Carson anticipated such revision and has made efforts to finalize the revision within a five year time frame. To that end, an initial planning meeting for the 2012 revision to the INRMP was conducted on June 3, 2010. The meeting was attended by Representatives of the Army, the USFWS, and the Colorado Division of Wildlife (CDOW). The revision process has been ongoing since that time. The 2012 INRMP is currently estimated to be approximately 80% complete and is expected to be made available for public comments in about June, 2012. The review required by the Sikes Act has been accomplished. While the revision process proceeds, the current INRMP remains in effect and the responsibility and authority of the USFWS and the CDOW to require full compliance with applicable natural resource laws and regulations also remains in full effect.

The Sikes Act does not require or mandate that the Army use USFWS personnel to augment its staff. Additionally, any internal reorganization of environmental support staff is not within the scope of the proposed action. Currently, there are 34 full-time employees in the Environmental Division of the Department of Public Works (DPW-E), the successor organization to the prior "Directorate of Environmental Compliance and Management" (DECAM, which services the entire Installation (both Fort Carson and PCMS).

This section of the comment ends by stating that the CAB EA fails to disclose "the devastating impacts and irreparable harm that will occur at the PCMS as the result of year-round training, increased training intensity, and new weapons systems." The CAB EA discloses the impacts associated with the action it proposes. It does not attempt to analyze the impacts of other actions or previously-analyzed training. As described above, mechanized training is limited to 4.7 months per year, rather than being authorized year-round.

VIII. The Draft CAB EA and its Predecessors Fail To Make Any Attempt to Disclose, Quantify or Consider Cumulative Impacts Associated With Use of the PCMS By Non-Fort Carson Troops

The proposed action does not include any action that is expected to increase the use of PCMS by non-Fort Carson Troops. Such requests are evaluated upon receipt and the proposed action is not anticipated to increase such requests or their rate of approval. For a discussion of the 4.7

month limit on mechanized maneuver training, see Section IV of the response to this comment. Note that the 4.7 month per year limitation applies to all mechanized ground training, not just that by active-duty units stationed at Fort Carson. It applies to reserve component units and other services.

For a discussion of minor construction activities at PCMS, see Section IX of the response to this comment.

Regarding the Army's cooperation with U.S. Air Force "LATN" training, the Army understands the Air Force has significantly restructured the associated training proposal and that it will not involve training in southeast Colorado. There are no foreseeable plans to accommodate LATN training.

IX. Fort Carson Has Illegally Completed Transformation Construction Projects at the PCMS That Are Designed to Facilitate Air-Ground Integration Training at the PCMS In Violation of NEPA

In the 2007 *PCMS Transformation FEIS*, the Army 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 it 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*. This is true even if some of the construction projects are similar in purpose, if not scale, to the ones in the 2007 EIS. As discussed below, these projects received appropriate NEPA analysis. Note that none of these projects are part of the proposed action for this EA.

The following is a short synopsis of the constructions projects discussed in the comment letter.

- Concrete Pads for Command and Control Training Vehicles: This project has not been undertaken.
- Clamshells: The 2007 *PCMS Transformation FEIS* proposed two large "clamshell" buildings, sized 175 x 100 feet. The buildings were associated with a complex of transportation related buildings that included a motor pool, a transportation warehouse, and a vehicle maintenance shop. 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. The Army applied a NEPA categorical exclusion for this project. The motor pool, transportation warehouse, and vehicle maintenance shop were not built.
- Vehicle Maintenance Facilities: The 84,000 square foot vehicle maintenance shop proposed in 2007 has not been built. However, the clamshell buildings described above are used for vehicle maintenance. Both are less than 17,000 square feet.

- Vehicle Wash Rack: The 2007 *PCMS Transformation FEIS* proposed a Vehicle Wash Rack, which was part of a 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 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 *PCMS Transformation FEIS*. 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 Draft 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 transformation of training at PCMS.
- Communications Huts: The commenter indicates that their attached Exhibit 60 may show some communications huts; however, exhibit 60 has 145 pictures and it is unclear which structures may be in question. The 2007 *PCMS Transformation FEIS* proposed four communications huts. None have been built. In 2006, a communications hut was placed next to building 300, after review in an environmental assessment dated November 21, 2006.
- Steel Buildings: The 2007 *PCMS Transformation FEIS* proposed two steel buildings, sized 200 x 30 feet. Those buildings were not constructed; however, in an unrelated matter, a 60 x 80 foot steel building was constructed in order to add a new fire bay for the Fire Department at PCMS. The Fire Department's need was independent of any project proposed in 2007. The Army applied a NEPA categorical exclusion for this project. The bay houses fire engines and other emergency equipment necessary for the safety of the PCMS facility.
- Improvised Explosive Devices (IED) Defeat Lanes: This project was reviewed by a Record of Environmental Consideration dated 20 April 2009, which was prior to the court decision of September 2009 which vacated the 2007 *PCMS Transformation ROD*. The project allows Soldiers to train to respond to training scenarios involving an urban backdrop where they can employ strategies to protect against IEDs. It involves the use of mock building shells that are portable and capable of being rearranged or relocated. Civilian vehicles are simulated with non-functioning vehicles, which had all hazardous materials removed prior to delivery to PCMS.
- Seven Concrete Helicopter Pads: As highlighted in the public meetings held in January 2012, the proposed action initially anticipated no construction of CAB facilities at PCMS. However, the construction of concrete pads on which to park aircraft is a modest change to that initial plan which the Installation expects to be non-controversial and

environmentally sound. Section 4.8.2.2 has been updated. The Army invites further comments in the next round of public participation.

IX (the 2nd one**). The Army is using the Draft CAB EA to justify a decision that has already been made, in violation of NEPA.**

The Army is not utilizing this CAB Stationing EA merely to justify a decision already made.

NEPA permits programmatic environmental review, or "tiering". CEQ's regulations expressly permit tiering (see 40 CFR 1502.20), as do the Army's own NEPA regulations (see 32 CFR 651.14(c)). This CAB stationing implementation EA tiers off of the Army's 2011 *CAB Stationing PEIS*.

The intent of this EA is not to "justify a decision already made". Rather, it is to analyze the site-specific impacts of implementing the Army's programmatic CAB stationing decision, and to determine and decide how best to mitigate any impacts. As explained in the Army's NEPA regulation, "[w]hen a broad programmatic EA or EIS has been prepared, any subsequent EIS or EA on an action included within the entire program or policy (particularly a site-specific action) need only summarize issues discussed in the broader statement and concentrate on the issues specific to the action." See 32 CFR 651.14(c). This is precisely what the Army has done with this CAB stationing implementation EA.

X. The EA fails to adequately disclose or consider potential impacts to air quality at PCMS.

The Army thoroughly analyzed air quality impacts from CAB stationing at Fort Carson and PCMS in Section 5.5.2 of the 2011 *CAB Stationing PEIS*, a document that is incorporated by reference into this CAB stationing implementation EA.

Regarding off-road travel, the commenter estimates that the vehicles would travel off-road through approximately 80 percent of PCMS. Such is not the case. CAB wheeled vehicles primarily operate on established roads and two tracks. These vehicles would not normally be traversing cross-country. Therefore, there would be limited fugitive dust emissions and minimal to no additional disturbance exposing soil to sun and wind.

The proposed action does not change the training requirements of mechanized units; mechanized training is not part of the proposed action. Therefore, PM and smoke use is largely unrelated to the CAB's involvement in maneuver training. The use of smoke obscurants for training at Fort Carson has been incorporated into Section II.D. of Colorado Air Regulation 1, adopted by the State of Colorado on July 21, 2005. On August 10, 2011, at Federal Register Volume 76, Number 154, the U.S. Environmental Protection Agency (EPA) proposed to approve that portion of the Colorado Regulation, essentially finding it consistent with the Clean Air Act.

Section 4.3.1.1.3 has been updated to further discuss the Installation's fugitive dust management program, a program also applicable to CAB operations.

The Army has considered aircraft emissions during travel to/from PCMS; however, such emissions have not been broken down into the various places or routes where they occur. The Army considered emissions based on projected flight hours. The Army has estimated that up to one third of CAB flight time may occur at PCMS.

XI. The Proposed Action Will Cause Significant Increases in Greenhouse Gas Emissions

The Army thoroughly analyzed GHG impacts from CAB stationing at Fort Carson and PCMS in Section 5.5.2 of the 2011 *CAB Stationing PEIS*, a document that is incorporated by reference

into this CAB stationing implementation EA. Section 4.3.2.2 has been updated to include GHG impacts from the proposed CEP because it was not then known to be part of the construction for the proposed CAB. Section 4.3.2.2 has also been updated to make clear the Army's best estimate on total GHG impacts from CAB stationing implementation, incorporating more directly data calculated in the 2011 *CAB Stationing PEIS*.

Regarding the comment that the 2011 *CAB Stationing PEIS* downplays the increase in CO_2 emissions, the comment cited, which is taken from page 5-19 of the 2011 *CAB Stationing PEIS*, is incomplete. The entire quote should be "For a CAB to be formed by consolidating existing units, there should be no net gain of carbon emissions." That conclusion refers only to the alternative under which a CAB would be formed from existing Army units, and does not apply to the selected alternative, which entailed activation of a CAB that would add helicopters to the Army's inventory.

XII. The EA fails to adequately disclose or consider the significant impacts to vegetation, wildlife, threatened and endangered species, and wetlands (referred to by the Army as 'biological resources')

There are no endangered, threatened, or candidate species at PCMS.

The proposed action will not increase mechanized maneuver training. The Army recognizes the ecological importance of the diversity of flora and fauna at PCMS. Military training can affect environmental resources, but there is no evidence indicating training-associated changes of natural communities result in irrevocable loss of any plant or animal species. The effects of aviation training of this proposed action would be confined to landing zones, refuel points, roads and trails, and bivouac areas. Overall effects of aviation training would be minimal.

Training-related impacts to plant and animal communities are generally localized, resulting in a seral stage change at the site. The cumulative effects of such localized impact must be evaluated within the broader context of management objectives for specific plants or animal species. Sites affected by training recover naturally as do ecosystems impacted by fire, disease, and other natural causes that result in loss of vegetative cover and an increase in bare soil, and loss of some wildlife. There are numerous mechanisms the Army uses to monitor vegetative trends and reduce the erosion process, to include but not limited to, RTLA vegetative transects, reseeding with weed free native grass mix, and erosion control dams. Training related to the proposed action would have negligible impacts to trees.

The commenter raised concerns about traffic impacts on certain animal species. Vehicle-related mortality is documented for these species throughout their respective geographical ranges and is not unique to PCMS. The Army recognizes the importance of these species to the grassland ecosystem and has implemented management actions and regulations to mitigate potential training-related mortality. These include regulations prohibiting trapping and hunting swift fox and black-tailed prairie dogs. Fort Carson has chemically treated prairie dog colonies with an approved pesticide to prevent introduction of plague and subsequent loss of colonies that are important to bald and golden eagles and other predatory birds. Fort Carson accepted prairie dogs from sites in El Paso County where lethal control was planned and constructed artificial burrows for their translocation. Prescribed fire in the grasslands is conducted during horned lizard hibernation when they are buried and less likely to be killed by fire. Research indicates prescribed fire is a beneficial practice for the Texas horned lizard. Prescribed fire during autumn and winter reduces the likelihood of catastrophic wildfire, which would result in significantly greater horned lizard mortality.

In 1997, the Sikes Act was amended to require a ~~voluntary~~ natural resources management plan, cooperatively developed by the USFWS, for every DoD installation having significant natural resources, and the respective state wildlife agency. Since 2002, the Installations' natural resources management has been conducted cooperatively with the CDOW and the USFWS by actions agreed upon and prescribed in an INRMP.

Any land use activity will have associated impacts, but the Army is committed to reducing the ecological footprint associated with training events. There are numerous mechanisms the Army uses to monitor vegetative trends and reduce the erosion process (e.g., Range and Training Land Assessment [RTLA] vegetative transects, reseeding with weed free native grass mix, and erosion control dams).

Standards of training are not "management efforts to mitigate damages". Standards of training are designed to reduce the impacts while mitigation is the management effort to correct or offset the environmental impacts. The year-to-year changes in the weather patterns play an important role in the speed at which the land recovers. Areas that may require additional recovery time are identified and may be rested up to 3 years.

The Installation, as noted above, has implemented management actions to protect the black-tailed prairie dog component of the grassland ecosystem. In some situations; however, prairie dogs must be controlled. The presence of prairie dogs at Butts Army Airfield pose an imminent threat to aircraft and airmen because of the predatory birds they attract, which increases the opportunity for bird-aircraft strikes. Eagles and other predatory birds pose significant threats to human safety within the airfield environment.

The bald eagle is a rare migrant and occasional winter visitor at PCMS and whose presence is primarily related to the presence of black-tailed prairie dogs. Sylvatic plague is the primary threat to the persistence of the prairie dog at PCMS. Prairie dogs are protected at PCMS and will not be controlled unless posing a threat to human health and safety or property. In this event, Fort Carson would follow the guidelines provided by the USFWS to reduce potential secondary impacts to eagles and other wildlife. Although it is legal to hunt black-tailed prairie dogs in Colorado, it is not permitted at the Installation because of its ecological importance as a keystone species.

The status of listed and rare species at PCMS is documented in the Installation INRMP, a document for cooperative management signed by the CDOW and USFWS. If a listed species potentially occurred at PCMS, confirmation of its presence or absence would be established cooperatively with these agencies according to accepted survey protocols.

Section 4.7 has been updated.

XIII. The Draft CAB EA Fails to Adequate Disclose and Analyze the Impacts of the Proposed Action to Cultural Resources

Regarding concerns about the Santa Fe Trail and historical tourism, see the response to comment #124. Additionally, the Installation is working with the National Park Service Intermountain Region to identify potentially sensitive points along the Trail.

Please see the response to comment #121 regarding the ICRMP and the development of a PA, which the Army is pursuing in lieu of using the Army's alternate procedures for NHPA consultation.

Please see the response to comment #270 regarding Warhorse Rampage.

After Action Reports are not part of the proposed action. See our response to Section IV of this comment letter regarding ITAM, to include LCTA. Also, the Installation's cultural resources management team monitors the effectiveness of site protection measures, especially in association with significant training actions. This process includes involvement in planning, execution, and follow-up of training exercises.

XIV. The Proposed Action Will Cause Significant Impacts To Water Resources

As noted in Section 4.6.2.2, the impacts of the proposed action on water resources at, adjacent to, and downstream from PCMS would be minimal.

The water body identification number (WBID) COARLA2a_4200: Purgatoire River Tributaries, which includes all drainages on PCMS does not appear on Colorado's 303(d) list or the states Monitoring & Evaluation list. This water segment downstream – COARLA07: Purgatoire River, I-25 to Arkansas River is on the 303(d) list for selenium and on the Monitoring and Evaluation list for sediment. However, the flow and sediment load coming from PCMS drainages into the Purgatoire River is small. For example, the tributary waterhead at PCMS are 13.9 percent of the drainage area of the Purgatoire Rock Crossing station. The stormflow sediment load contribution of the tributaries to stormflow loads at the Purgatoire Rock Crossing station is about 3.5 percent, which illustrates that the sediment load from PCMS is minimal.

Please note that the negative impacts of selenium on aquatic species are known.

Upon further analysis of the nature of support actually required by CAB operations at PCMS, it has become apparent that not more than 50 CAB wheeled vehicles would be required when the CAB is acting in support of a mechanized maneuver. Section 2.3.3.5 has been adjusted appropriately. CAB wheeled vehicles primarily operate on established roads and two tracks. Because these vehicles would not normally be traversing cross-country, these activities would not result in a significant release of sediment-derived nutrients to the Purgatoire River. The sediment concerns attributable to training operations that the Army cites in Section 4.5.1.2.2 are more related to the amount of mechanized maneuver training than any impact anticipated from CAB support of such training.

The Installation is aware of the March 12-14 hearing held by the Colorado Department of Public Health and Environment Water Quality Control Commission that drafted Final Nutrient Permit Limits for Total Phosphorus and Total Inorganic Nitrogen for inclusion in the new Nutrients Management Control Regulation #85. The Army anticipates that EPA Region VIII will incorporate these limits into Fort Carson's next wastewater treatment plant permit renewal anticipated to occur on October 1, 2016. If it is determined that the plant will not be able to achieve compliance with these permit limits, the Army will fund any necessary plant modifications. In this case, the Installation will receive a compliance schedule to allow time to come into compliance with the new limits.

As noted in Section 4.12.2.3, the Installation is investigating further opportunities to conserve water as part the Army's Net Zero Initiative. This initiative includes the goal to recycle, for beneficial use, 100 percent of the treated effluent produced by the wastewater treatment plant. When this program is fully implemented, Fort Carson's wastewater discharges to the watershed will approach zero.

Wastewater from the PCMS cantonment is treated by a septic tank and collected in non-discharging evaporative lagoons. No untreated or treated wastewater is released to the watershed.

XIV (the 2nd one)**. The EA fails to adequately disclose or consider potential impacts to land use at PCMS.**

Section 4.2.2.2 concludes that land use impacts at PCMS as a result of the proposed action are less than significant. In fact, most of land use impacts of the proposed action would affect Fort Carson, not PCMS.

With respect to the comment on NOE in Section XV of the comment letter, please see the response to comment #13. In summary, the Army does not have any NOE flight routes over private property in southeastern Colorado and Section 4.11.1.1 has been updated to reflect this correction of the location of NOE routes.

With respect to airspace above private property, see the response to comment #2.

XV. The Proposed Action Will Ccause Significant Noise Impacts

Community annoyance from aircraft noise is represented quite reliably using Day-Night Level (DNL). The DNL may be A-weighted (ADNL) or C-weighted (CDNL) depending on the noise being measured. The A-weighting of decibels (dBA) was designed to work primarily with higher frequency sounds. In military noise, this would encompass such sounds as those from generators, aircraft, maneuver drills, and general transportation. This average is calculated over any specified amount of time.

The DNL is an average with a 10 dB "penalty" inflicted on sounds occurring between the hours of 10:00 p.m. and 7:00 a.m. (a particularly intrusive time when people are usually sleeping). The three determinants of noise annoyance are the intensity of the noise event, the duration of the noise event, and the number of times the noise event takes place, thus DNL represents the total sound exposure.

Therefore, although the proposed action would result in minor impacts to noise, the total sound exposure (the aircraft would be in transit, number of helicopters per event would be small, and training events would be limited at PCMS), would be less than significant and is not anticipated to adversely affect the general quality of life within the region. Section 4.4 has been modified to include population data for noise-sensitive areas surrounding Fort Carson.

Also, Fort Carson has a "Fly Neighborly" policy which is described in Section 4.4.1 of the EA.

With respect to the comment on NOE flight and Route Hawk, please see the response to comment #13. Again, the Army does not have any NOE flight routes over private property in southeastern Colorado and Section 4.11.1.1 has been updated to reflect this correction of the location of NOE routes.

XVI. The EA Fails to adequately disclose or consider potential socioeconomic impacts to rural communities.

The entire basis of the commenter's argument in Section XVI of this comment letter is premised on the idea that the Army should include the possibility of expansion of PCMS in the socioeconomic analysis of the CAB stationing implementation EA. However, expansion of PCMS is neither part of the proposed action nor part of any current Army plans. The impact to the economy from a perceived threat of expansion, a random variable, is not reasonably susceptible to objective measurement or reliable evaluation.

As noted in Section 4.9.1.1, the socioeconomic analysis contained in the 2011 *CAB Stationing PEIS* is incorporated by reference within this EA. Impacts on minority and economically disadvantaged populations were discussed in this PEIS. The proposed action would not "create

extreme congestion problems on Interstate 25" between Fort Carson and Trinidad, as asserted in Section XVI of this comment letter. Section 4.10.2.3 has been updated to address further the cumulative impacts of military convoy operations on traffic and roadways, demonstrating that impacts would be less than significant.

The proposed action would not "essentially shut down" traffic on US 350 for "30-60 days a year or more". Military convoy operations to or from PCMS have never required US 350 to be shut down. Convoy traffic between Fort Carson and PCMS is executed per Fort Carson Regulation 56-7, Road Clearance and Convoy Operations, which requires convoys be staggered into groups of no more than 24 vehicles each, spaced at least 15 minutes apart.

XVII. The Army fails to disclose and analyze the impacts from Traffic and Transportation of the Proposed Action

Analysis of the traffic and transportation impacts from the proposed action are in Section 4.10.2.2 and analysis of other environmental impacts associated with CAB wheeled vehicles are contained in applicable VEC sections.

The proposed action would not increase mechanized training deployments to PCMS. The proposed action would have negligible impacts to public roads. Section 2.3.3.5 has been corrected to state that, at most, only 50 CAB wheeled vehicles, not 250, would convoy to PCMS during large, heavy mechanized maneuver events. As noted in the response to Section XVI of the comment letter and per Section 4.10.2.2, convoy traffic for CAB vehicles would follow existing procedures and limitations contained in Fort Carson Regulation 56-7 to reduce traffic and highway impacts. Section 4.10.2.3 has been updated to include potential impacts to US Highways 350 and 160 from military convoy operations.

The Army has updated Section 4.10.1.1 to expand on existing regulations governing military convoy operations between Fort Carson and PCMS, which include practices that help minimize impacts to traffic and roadways.

XVIII. Conclusion

As explained in the response to Section I of the comment letter, the Army disagrees with many of the factual assertions and conclusions put forth in the comment letter. With respect to the commenter's opposition to "any continued use" and the demand that the Army "immediately cease any training activity at the PCMS", please note, again, that the cessation of all Army training activities at PCMS is not appropriately within the scope of analysis for this proposed action. This action contemplates the addition of CAB-related activities.

Thank you for your comments. The Army has utilized many of your comments to sharpen the analysis.

This Page Intentionally Left Blank.

Appendix D

Public Comments on the May 2012 Final EA/Draft FNSI and Army Responses

This Page Intentionally Left Blank.

D-1. Army Response to Comments Received on the Final EA/Draft FNSI

The Army thanks commenters for participating in this National Environmental Policy Act process. An earlier stage of this process included the publication of a Draft Environmental Assessment in January 2012, for which the Army received numerous comments that enabled the development of an improved analysis document. The second and final 30-day public comment period resulted in three additional public comments received on the May 2012 Final Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI).

No new issues of substance were raised during the second public comment period.

After a careful review of the three public comments received on the Final EA / Draft FNSI, the Army stands by the responses made to similar comments received on the Draft EA and the analysis contained in the Final EA, to include analysis contained in other documents incorporated by reference therein.

With respect to comment #3, as was the case for comment #281 submitted against the Draft EA (see Appendix C), the Army disagrees with many of the assertions and conclusions put forth in the comment letter. No new issues of substance pertaining to the proposed action were raised in the June 2012 comment letter. Most of the comments raised in the comment letter pertained to matters other than CAB stationing implementation. Comments received on matters other than those pertaining to the CAB stationing implementation are not addressed herein; and the Army's lack of comment on any other matter is not intended to indicate the Army's agreement or accession to the commenters' point of view. Included among these other matters are environmental impacts from heavy maneuver training at PCMS and the stationing and use of unmanned aerial systems which, as explained in the Army's responses to Draft EA comments, are not part of the proposed action.

Section 2.3.3.5 was edited; however, to clarify that the rest and recovery of PCMS land does not call for the closure of PCMS for a continuous 7 months. Additionally, we corrected an earlier response to comment #281 which had erroneously identified the INRMP as a "voluntary" plan. This correction aligns with other Army responses which clearly recognize the requirements of the Sikes Act.

The Army reconsidered whether an environmental impact statement (EIS) is warranted for the proposed action in light of comments received on the Final EA/Draft FNSI. This review did not result in any new information that would warrant an EIS; therefore, the Army has determined that an EA for the proposed action is sufficient. Please see the Army's response to Draft EA comment #105 for a more detailed explanation as to why an EA is sufficient for the proposed action, and an EIS is unnecessary.

Fort Carson Combat Aviation Brigade

Stationing Implementation EA

Public Comments on the May 2012 Final EA/Draft FNSI

ID: 1	**Date:** 6/2/12	**Name:** M. Clark	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
To whom it may concern, This message is in regards to the statement that the helicopter unit moving to Ft Carson would not have any significant impact on the natural and human environment. As a resident of the Crystal Park community in western El Paso County I can tell you unequivocally that there has been, and unless things change, will continue to be significant impact on the natural and human environment in this area. Helicopters have been flying over both lower and upper Crystal Park and helicopter training has taken place outside of the prescribed landing zones much to the detriment of our community. The Garrison Commander has said that the helicopter pilots are told not to fly over our community, and are supposed to fly around it as prescribed by their flight plan, instead they fly directly overhead. The explanation for this is that the pilots will do what they will, by saying this the Commander is implying that he can't control his troops or those training at the base, if they decide not to follow directives given them. I have no doubt that if not corrected this activity will increase as the unit becomes fully functional. Here is another example of the local impact these units are having. Last summer on labor day weekend, training exercises were carried out over upper Crystal Park at 0230 and 1430 that literally woke me from a dead sleep. The sights and sounds of these helicopters flying over and echoing off the surrounding hillsides destroys our viewshed and soundscape. These units have also been sighted			Thank you for your comment. Please see page D-1 of this appendix.	

and videotaped training outside of their designated landing zones, which are located in the Pike National Forest adjacent to our community. I can't stress enough the impact the helicopters have had on our community, especially when you factor in the training from helicopter units from other Army posts, National Guard units, etc. When we call to complain we are told to be sure to identify the helicopters since they are not all from Fort Carson. I find it difficult to clearly identify all helicopters as they fly over but since they are all from the same Army Post, it shouldn't matter; we are being assaulted on a regular basis and what we are hearing is that it's up to us to identify not only the time and place but the type of helicopter as well, sort of like the Commander has no control over what is happening under his command. To me a military helicopter flying overhead is a military helicopter flying overhead, whether it's from Fort Carson or any other military unit using Fort Carson as a training ground. To close I will say that the finding of no significant impact to be absolutely incorrect as far as our community is concerned. We see, hear and even feel the helicopters flying over and landing near our community, which significantly affects our quality of life. Many of the people living here do so because of the peace and quiet such a location provides and to have that disturbed in such a manner is definitely a significant impact on the natural and human environment. Thank you for considering my comments and please confirm that you have received this email.	
ID: 2 **Date:** 6/8/12 **Name:** Michael Adams	**Method:** Mail **Other Notes:** N/A
Comment	**Response**
This Colorado native respectfully requests the Garrison Commander file a Notice of Intent for an environmental impact statement. This region has provided the military with adequate training grounds. I hope the statement will show that a majority of	Thank you for your comment. Please see page D-1 of this appendix.

citizens don't want 113 more helicopters in the air. I ask that you put the good of the citizens 1st & do what is best for them, not the military. Please.				
ID: 3	**Date:** 6/13/12	**Name:** Stephen Harris, Alpern Myers Stuart LLC on behalf of Not 1 More Acre!	**Method:** Email	**Other Notes:** N/A
Comment			**Response**	
See next page for start of comment letter. The full comments are contained on pages D-5 through D-40. Copies of the exhibits provided with the letter are not included within this Appendix.			Thank you for your comment. Please see page D-1 of this appendix.	

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

Howard J. Alpern
Kenneth P. Myers
Dan D. Stuart
Lisa Tormoen Hickey
Matthew J. Werner
Virjinia V. Koultchitzka
John L. Cyboron
Gregory M. O'Boyle

14 NORTH SIERRA MADRE STREET, SUITE A
COLORADO SPRINGS, COLORADO 80903-3311

TELEPHONE (719) 471-7955 x138
FACSIMILE (719) 630-1794
E-MAIL: steve@coloradolawyers.net

Of Counsel
M. Allen Ziegler, Jr.
Stephen D. Harris
Senior Associate
Peggy A. Hayes
Associate
Andrew J. McVay

June 13, 2012

Public Comments
U.S. Army Environmental Command
Attn: IMPA – AE (Kropp)
2450 Connell Road (Building 2264)
Fort Sam Houston, Texas 78234-7664
By email attachment to: USARMY.JBSA.AEC.MBX@mail.mil

VIA FEDEX

Re: Comments on the Final Environmental Assessment/Draft FONSI
Fort Carson Combat Aviation Brigade Stationing Implementation

To Whom It May Concern:

On behalf of Not 1 More Acre!, Jean Aguerre, Las Vegas Peace & Justice Center, Purgatoire, Apishapa & Comanche Grassland Trust, and Patricia Leahan (collectively, "Commenters"), I submit these comments on the Department of Army's Final Environmental Assessment for Fort Carson Combat Aviation Brigade Stationing Implementation ("Final EA" or "Final CAB EA") and Draft Finding of No Significant Impact ("Draft FONSI") issued in January 2012. Commenters are non-profit organizations and individuals dedicated to protecting and preserving the natural and cultural heritage, economy, and quality of life in southern Colorado and northern New Mexico.

We appreciate the Army's response to our original comment letter. However, we respectfully disagree with the suggestion that the comment letter "raises a number of other issues outside of the proposed action." In our view, *the* defining issue is the Army's six-year failure to conduct an honest assessment of the environmental impacts of increased military training use of the Piñon Canyon Maneuver Site ("PCMS"), a separate Department of Defense ("DOD") installation from Fort Carson. Standing alone, the training activities of a 113-helicopter Heavy Combat Aviation Brigade ("Heavy CAB") will cause significant impacts to the PCMS and southeastern Colorado, and a FONSI is not warranted.

The larger point, however, is that the military has steadily increased the pace and intensity of training exercises at the PCMS while incorporating new technologies, weaponry, and integrated system configurations, in violation of the environmental review process and public disclosure required by the National Environmental Policy Act ("NEPA"). The record reflects that changes to the training regime have occurred and are still occurring even as the

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 2 of 36

Army refuses to publicly admit that these changes are causing significant environmental impacts. The Army has consistently followed a flawed process designed to mislead the public into believing that training activity at the PCMS is benign.

This letter expressly incorporates by reference our original comment letter submitted on February 1, 2012 and all of the electronic exhibits on the computer disk that was delivered to you along with the letter.[1] We reserve the right to rely on any arguments set forth in any of our prior comment letters and exhibits related to the PCMS.

Unmanned Aerial Systems

In the Final EA, the Army publicly identifies for the first time Unmanned Aerial Systems (UAS) that are already in use at Fort Carson and the PCMS – at a minimum, the RQ-7 Shadow 200, RQ-11 Raven, Puma, and Silver Fox. Final EA at 4.11-1. These UAS pose unique and significant hazards to public safety, shared airspace, wildlife including birds, air quality, bandwidth use, and privacy interests that have never been disclosed to the public or analyzed by the military. For instance, the Shadow is eleven feet long, can fly at speeds up to 127 miles per hour, and weighs up to 375 pounds when fully loaded.[2] Twenty-two soldiers and multiple ground vehicles are required to properly field a Shadow system. Although the Shadow has not been armed in the past, it was reported earlier this year that the U.S. Marine Corps had chosen a classified weapon to arm the AAQ RQ-7B Shadow.[3] In addition to UAS training by troops stationed at Fort Carson, the Final EA admits that outside or transient Federal, state, and local units also conduct this type of training at the PCMS. Final EA at 4.11-1.

The Army has violated NEPA by implementing UAS training without performing any advance public disclosure or environmental review. Authorizing the use of UAS at the PCMS is a "major federal action significantly affecting the quality of the human environment." 40 U.S.C. § 4332(2)(C). The Final CAB EA states that "[t]here are no extended range multi-purpose ("ER/MP") UAS at" Fort Carson, and that "[n]o additional UAS will be stationed at Fort Carson as a result of the proposed action." Final EA at 4.11-9 & C-318 (emphasis supplied). However, the Final EA also recites that "[d]ue to changing

---

[1] The exhibits were not included in the Final EA. Please be advised that we demand that all of the exhibits be included in the Administrative Record in addition to the comment letter itself. This letter will cite to the exhibits attached to the original letter, as appropriate.
[2] http://en.wikipedia.org/wiki/AAI_RQ-7_Shadow
[3] http://www.military.com/features/0,15240,243672,00.html

technologies and operational needs, the Installation continually analyzes its needs for modifications to existing airspace." Final EA at 4.11-9. The PCMS is not capable of sustaining the environmental impacts caused by integrated Transformation training. The DOD violated NEPA by selecting Fort Carson as the site for a brand new $5 billion Heavy CAB without first considering a reasonable range of alternatives for training and maneuvering the Heavy CAB at locations other than the PCMS. The Army has not publicly disclosed its plans for training with drones or who would participate in such training.

Congress recently directed the FAA to begin integrating both public[4] and civil (including private military and intelligence contractors) UAS operations into the National Airspace System ("NAS"). Section 332(a)(1) of the FAA Air Transportation Modernization and Safety Reform Act of 2012 ("the FAA Act") directs the Secretary of Transportation to "develop a comprehensive plan to safely accelerate the integration of civil unmanned aircraft systems into the national airspace system." Similarly, section 1097(a) of the 2012 National Defense Authorization Act ("NDAA"), passed two months prior to the FAA Act, requires the FAA Administrator to "establish a program to integrate unmanned aircraft systems into the national airspace system at six test ranges." To date the federal government has failed to conduct any analysis of the negative impacts to society caused by the introduction of these UAS into the airspace of the United States. Not 1 More Acre!'s comments regarding the FAA's efforts to integrate UAS into the NAS is attached hereto as Exhibit 139.

It appears that Fort Carson did not undertake any NEPA review before scheduling and deploying the Shadow, Raven, Puma and Silver Fox or other drones as part of its training activities, and the Final EA does not commit the military, or any other government or civilian entity proposing to or already training at PCMS, to prepare a NEPA analysis before deciding to field any additional UAS. The decision to begin scheduling and conducting training with UAS is just one in a long series of Fort Carson decisions made to implement new programs and training methods that have had the effect of expanding the intensity of training activity at the PCMS far beyond what was previously contemplated and publicly disclosed.[5] Based on

---

[4] Public UAS are fielded by governmental entities including but not limited to the Department of Defense, Joint Forces, the Central Intelligence Agency, the Department of Homeland Security, the National Aeronautics and Space Administration, and state and local law enforcement agencies.

[5] The FY 2013 Military Construction and Veterans Affairs Appropriations bill includes section 125 prohibiting the use of funds for any action related to the expansion of Piñon Canyon Maneuver Site, Colorado. The funding prohibition was first instituted by the 110th Congress in 2007. It has been renewed annually by Congress since that time.

this past record, it seems likely that the military or other public agency or civil entity with access to PCMS will soon change its mind and seek to field ER/MP aircraft such as the Predator and Gray Eagle as it advances illegal training and maneuver of the Heavy CAB at PCMS. Back in 2006 the PCMS Transformation EIS explained:

> Helicopters and Unmanned Aerial Systems (UASs), which includes TUASs and SUASs, generally support ground maneuvers, but helicopters are sometimes used independently of other maneuvers. None of the BCTs is currently projected to have aviation battalions. The only aerial equipment assigned to the BCTs is UASs. These UASs cannot be used at the PCMS under current conditions because the PCMS lacks restricted airspace (that is, an area that is restricted from entry, usually up to a certain elevation, by other aircraft). UASs can only operate in areas without restricted airspace if they are accompanied by manned aircraft. Because no manned aircraft are assigned to Fort Carson, none is available to accompany UASs.

Exhibit 2 at 2-21 (emphasis added). In other words, at that time the Army leadership understood that stationing a manned aviation (such as a Heavy CAB) at Fort Carson would make it possible for Fort Carson to eventually field attack drones like the Predator and the Gray Eagle. Indeed, the Gray Eagle is part of the standard configuration for a Heavy CAB. Exhibit 131 at 19 (or page 10 of 30); see also Exhibit 132. Fort Carson illegally assumes that Transformed military units using UAS will train and maneuver at the PCMS just like all of the other entities that are scheduled to use the base by Fort Carson. The record shows that Fort Carson has failed in its role as user of the PCMS (as evidenced by the Warhorse Rampage training exercise and seventeen years of After Action Reports), as scheduler of the PCMS (by scheduling expanded training exercises at the PCMS far in excess of the carrying capacity of the land for an undisclosed number of users), and as manager of the PCMS (by failing to protect the land and cultural resources from the abuses of integrated military Transformation training).

When Fort Carson does seek to schedule and maneuver additional drones and the integrated weapons systems on which they depend, it is reasonable to expect that the DOD or other responsible government agencies and its contractors will once again fail to conduct any environmental review under NEPA - based upon the flawed reasoning that impacts caused by the use of additional drones will not be significantly greater than those of the CAB training itself, or that the drones are operated by a separate entity (which would constitute illegal segmentation under NEPA). The military is engaging in training with new methods and equipment that have been vacated at the PCMS – air-ground integration training activities

that link ground forces and aviation assets with Unmanned Ground Vehicles ("UGV"), UAS and remote ground operating stations with satellites and other space systems. The Final EA fails to provide an honest assessment of the potential risks associated with these advanced integrated technologies, which present a host of serious airspace safety, environmental, socioeconomic and privacy concerns. Indeed, the Final EA contains no public disclosure or environmental analysis of the following key variables related to these major and impactful transformation programs: (a) the frequency of proposed training exercises using integrated and autonomous UGV and UAS; (b) the duration of proposed training exercises and maneuvers using UGV and UAS; (c) the specific types of UGV and UAS and other weapons components that are proposed to be used; or (d) the numbers of UGV and UAS integrated weapons systems that will be employed in training at one time. DOD's Transformation is rapidly proliferating unprecedented lethal high-tech integrated weapons systems. Fort Carson Installation Management Command ("IMCOM") and their contractors have failed to produce and disclose information about potential risks as required by NEPA.

Quantitative Training Limit

The Army attempts to distance itself from the analysis that was criticized by the United States District Court in the case of *Not 1 More Acre! v. United States Dept. of the Army* by relying on "a specific, quantitative training limit for mechanized maneuver training." Final EA at C-319. According to the Final EA:

> Training by mechanized ground units at PCMS would not exceed a total of 4.7 months per year, a limit established in Fort Carson's 1980 *Draft and Final Environmental Impact Statements for Training Land Acquisition* (Fort Carson, 1980a, b). This total duration will continue to provide over 7 months total per year of rest and recovery time for PCMS training lands. The Army had previously proposed use of PCMS by CAB units, as detailed below, would not result in an increased use of PCMS by mechanized ground units above the 4.7 months originally analyzed in 1980.

Id. at 2-11. However, this statement is misleading for several reasons.

Contrary to Army claims, limiting mechanized or tank training to 4.7 months per year is not consistent with the environmental stewardship principles set forth in the 1980 EIS, which divided the PCMS up into five management units and then declared that only three out of the five units could be used at one time. Exhibit 17 at 2-28 to 2-32. Each unit could be used for training for only three consecutive years, to be followed by at least two years of rest.

Id. In any given year, the 1980 EIS assumed that anywhere between 107,540 and 131,064 acres of the property would be available for training at an intensity identified at between 44,684 and 50,207 vehicle days, representing a level of use 15% greater than the carrying capacity of the land. *Id.* at 2-39 (Table 2.9). According to the 1980 EIS, this level of use would permit between 4.2 and 4.7 brigade training periods per year. *Id.* at 2-43 (Table 2.11). Brigade exercises were designed to last roughly 20 days in the field. *Id.* at 1-6. Each brigade exercise was projected to involve 5,085 Soldiers, 16,520 wheeled vehicle days and 8,640 tracked vehicle days on 82,531 acres of land. *Id.* at 1-6 to 1-7 & Exhibit 18 at A-2. The 1980 EIS states that no more than 507 vehicles at one time would be engaged in training at the PCMS, and that no brigade sized exercises would be staged at the property (although two battalions could train at one time with a third battalion not in the field). *Id.* The 1980 EIS estimated helicopter use at 774 hours per brigade training period. *Id.* at 1-7. The 1980 EIS promised that "[h]elicopters would fly at least 1,000 feet (305 m) above ground level upon approach to the training area." *Id.*

Ultimately, environmental impacts are not simply a factor of the number of months per year that a training site is used. A proper environmental analysis would take into account all the types of training, number of troops training at one time, duration of training exercises, and unique attributes of electronically integrated weaponry and equipment, among other variables. The 1980 EIS provided a number of objective limits to define the maximum extent of training in addition to a limit on training periods, including number of acres that could be used for training at one time, maximum number of vehicle days (both wheeled and tracked), and maximum number of vehicles training at one time. The Final CAB EA and Draft FONSI fail to acknowledge that over time the military has exceeded all of the objective metrics identified in the 1980 EIS without undertaking proper NEPA review and no information has been provided to allow the public to compare the intensity of current training activity with what was anticipated when the PCMS was established. However, all available evidence indicates that Fort Carson is now using and scheduling others to use the site much more intensely than in the past, so that the property has little if any time to rest and recover. Fort Carson has betrayed the management authority entrusted to it to serve and protect the public interest at the PCMS.

Moreover, the Army admits that the 4.7 month limit applies only to mechanized maneuver (or tank) training, and not to dismounted training. However, intensified, much less unlimited, dismounted training has significant impacts on wildlife and vegetation and the decision to allow such should have been preceded by an environmental review under NEPA. Fort Carson itself is now home to the highest density of soldiers and equipment since the PCMS was originally established in 1983, including the 4th Infantry Division, which includes three Heavy Brigade Combat Teams ("HBCT") and one Infantry Brigade Combat Team

("IBCT") comprised of about 5,000 soldiers each. These units each have roughly 1,082 tracked vehicles, 3,630 wheeled vehicles and multiple UAS and TUAS among them. Although overseas deployments have depressed the actual numbers of soldiers and equipment on post at Fort Carson, with looming budget cuts predicted by the Army it is expected that more troops will operate from home station in the near term. In addition to the 4th Infantry Division, military personnel from the 10th Special Forces Group (1,200 soldiers), the 71st Ordnance Group, the 4th Engineer Battalion, the 759th Military Police Battalion, the 10th Combat Support Hospital, the 43rd Sustainment Brigade (3,000+ soldiers), and the 13th Air Support Operations Squadron of the United States Air Force are assigned to Fort Carson, along with three Reserve Component enhanced separate infantry brigades from other states.

It bears repeating at this point that the PCMS is not simply an extension of Fort Carson, as evidenced by the Army's failed attempt to establish the PCMS as a "sub-installation" of Fort Carson[6] and a funding prohibition specifically barring spending on "any aspect" of expansion at PCMS that Congress has renewed for six consecutive years. Instead, Fort Carson is simply the installation manager for the PCMS, which is itself an independent installation of the DOD. Fort Carson has had responsibility for scheduling training activities at the PCMS. Fort Carson has also had the duty to protect and preserve the land and biological resources present at the PCMS, but has utterly failed to fulfill these conservation obligations. The fact that a Heavy CAB is stationed at Fort Carson does not inevitably lead to the conclusion that those soldiers must train at the PCMS. Commenters' purpose here is not to oppose the stationing of a Heavy CAB at Fort Carson. If the area available for training at Fort Carson proper cannot meet all of the training and maneuvering needs of the Heavy CAB, however, then DOD and its contractors cannot simply assume that the PCMS will become a sacrifice zone. The military violated NEPA by failing to adequately disclose and consider potential training impacts as part of an analysis of a reasonable range of alternatives for additional Heavy CAB training.

In addition, the 4.7 month training limit does not apply to non-mechanized training activities undertaken by the many other Federal, state, local, and international troops that also use the site. Fort Carson is not the only entity that is using the PCMS for training.

---

[6] The Army considers the PCMS to be a separate military installation from Fort Carson. Under "Tasks to Divisional Staff" identified in the January 12, 2006 Piñon Vision Operation Plan 05-18, the Army acknowledged that it would be necessary to "[e]stablish PCMS as a sub-installation to Fort Carson in order to facilitate its use as a training facility." Exhibit 29 at 9. Fort Carson's "Sub-Installation Concept Plan (Revised as of 30 December 2008)" is attached hereto as Exhibit 140.

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 8 of 36

According to various published government reports, Fort Carson and the PCMS also host units of the Army Reserve, Navy Reserve and the Colorado Army National Guard, the Marine Forces Reserve, Navy SEALS and SEABEES, Joint Forces, Air Force Special Operations Command's 302nd Airlift Wing, the U.S. Air Force Academy, the Colorado Air National Guard, visiting Army units, and various federal, state and local law enforcement agencies. The Final CAB EA indicates that requests by non-Fort Carson troops to use the PCMS "are evaluated upon receipt" and notes that the stationing of the CAB is not expected to increase such requests or their rate of approval." Final EA at __. However, nowhere in any of the relevant environmental documents does the Army disclose information about the number of outside requests, the method and rate of approval, or actual usage by non-Fort Carson troops. There is no discussion regarding how many other units use the PCMS in a given year, for how long, how frequently, for what types of training involving what type of equipment. It is impossible for the public to understand the potential impacts of the Proposed Action because the Army's studies only tell part of the story.

The DOD did release objective information about training use in the "National Defense Authorization Act Section 2831(a) Report on the Piñon Canyon Maneuver Site, Colorado" ("NDAA Report") which was submitted to Congress. Exhibit 87. According to the 2008 NDAA Report, Fort Carson has used a Range Facility Management Support System to track scheduling of training exercises at the PCMS since 2004. *Id.* at 18. The Army reviewed its own records and determined that 11,369 "Training Events," defined as "a unit of any size conducting training at a specified facility for a specified number of days," took place at the PCMS between October 2004 and April 2008. *Id.* The 2008 NDAA Report indicates that this encompassed usage by all DOD forces, including units from the U.S. Army National Guard and Reserve, U.S. Air Force, U.S. Navy and U.S. Marine Corps. *Id.* In addition, the 2008 NDAA Report discloses that local, state and federal law enforcement agencies used the PCMS for 115 Training Events during that time period. *Id.* The Appendices to the 2008 NDAA Report contain information about each of the Training Events, including information on the month that the training occurred. Appendix B & C show that between 2004 and 2008 Fort Carson engaged in brigade and/or battalion training at the PCMS during seven months in 2005, six months in 2006 and seven months in 2007. Appendix D includes 70-pages of information regarding Training Events at the PCMS for a one year period, from May 2007 to April 2008. *Id.* at D-1 to D-72. Notably, every single month during that time has multiple listings of training events, contradicting the Army's claim that the PCMS will only be used for 4.7 months out of the year.

Finally, the data in the NDAA Report also demonstrates that Transformed Army units have been training at the PCMS since at least May 2005. Exhibit 87, Appendix C at C-1 to C-5. Between October 2004 and March 2005, Army records show that the only units to

conduct brigade training events at the PCMS were the 3rd Armored Cavalry Regiment, the 3rd Battalion, 29th Field Artillery Regiment, the 2-91 Training Support Brigade and a headquarters unit identified as HHC_USAG. *Id.* at C-1 to C-4. From May 2005 to March 2008, the record shows that the PCMS was used for brigade training by Brigade Combat Teams ("BCT") – the new unit configuration that was established by Transformation – including the 3rd BCT, 2nd BCT, and 2nd Heavy HBCT. *Id.* at C-4 to C-5. Notably, this indicates that the Army was using the PCMS for Transformation training even prior to issuance of the Draft PCMS Transformation EIS in October 2006, in violation of NEPA.[7]

Modeling Calculations

The 1980 EIS did not authorize any live-fire training at the PCMS. Therefore, the original baseline for live-fire range use requirements that could be accomplished at the PCMS was clearly zero until live-fire training was introduced in 2004-2005. *See,* Exhibit 24. For the first time, the Final EA discloses that the baseline that the Army used to calculate the projected increase in live-fire training was 5,783 live-fire range days (a statistic which is not reported in any previous environmental analysis), representing a massive increase over what was intended at the time the installation was established. Final EA at C-319. Although the Draft EA reported that there would be a 6.5% increase in live-fire range days, the military has now revised that figure upward to 7.5% in response to our comments. *Id.* at C-319 to C-320. Although the Final EA fails to include any data or calculations showing the basis for the 5,783 baseline figure, this appears to suggest that the military now contemplates an extra 433 live-fire range days per year (as compared with 375 estimated in the Draft EA).

Not 1 More Acre! continues to believe that this statistic is intended to mislead the public into thinking that impacts from helicopter training at the PCMS will be negligible. The fact remains that over a thirty year period the Army will have increased live-fire utilization from zero days to over 6,000 days if the proposed action is implemented, clearly a substantial change in operations that causes significant impacts. Because the military has failed to provide any data or calculations sufficient to allow the public to understand how these figures are derived and verify their correctness, the analysis is inadequate under NEPA.

---

[7] On October 17, 2006, the 2007 National Defense Authorization Act became law, just days after the Draft PCMS Transformation EIS was published. Included in the NDAA is a provision introduced by Senators Wayne Allard and Ken Salazar giving authority to the Secretary of the Army to acquire real property to expand Piñon Canyon Maneuver Site, Colorado.

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 10 of 36

The Army also notes for the first time in response to our comments that the baseline number of Maneuver Impact Miles ("MIM") used for its modeling methodology is 738,000, a figure that was purportedly calculated in connection with the Fort Carson Grow the Army EIS. *Id.* at C-319. However, the Fort Carson Grow the Army EIS incorporated the training conditions identified in the PCMS Transformation EIS as a baseline for the No Action alternative:

> Force structure, personnel, and equipment would be as they exist after the implementation of the Transformation activities studied in the 2007 Fort Carson and PCMS Transformation EISs (i.e., Base Realignment and Closure [BRAC] 2005, Global Defense Posture Realignment [GDPR], and Army Modular Force [AMF]).
>
> * * * * * * * * * * * * * * * * *
>
> The No Action Alternative provides a baseline condition from which to assess the comparative environmental impacts of alternatives.

Exhibit 8 at E-3 (emphasis supplied); *see also, id.* at 1-2, 2-25, & 2-26 ("Under the No Action Alternative training would be conducted as outlined in the 2007 Fort Carson and PCMS Transformation EISs"). Since the PCMS Transformation EIS was vacated, this "baseline" level of MIMs considered in the Final EA and FONSI was never authorized and cannot serve as the measure for judging the additional impacts from training a CAB at the PCMS. The baseline level of MIMs authorized under the 1980 EIS must necessarily have been a much lower number because the PCMS Transformation EIS assumed a worst-case scenario that involved training by some troops stationed at Fort Carson alone 24 hours per day, seven days per week, 365 days per year. *Id.* at 4-70. It has been only recently that the Army has announced its "intention" to limit mechanized maneuver training to 4.7 months per year – such a limit was not contemplated in the Fort Carson Grow the Army EIS. How did this change in policy affect the MIMs calculations? In the absence of supporting data and information, there is simply no way to tell.

The Final EA indicates that the proposed CAB would increase the total number of MIMs by 51,305, an approximate 7% increase over the purported baseline number. Again, however, no data or calculations were produced by the Army, making it impossible for anyone outside the agency to check the math. The MIMs analysis on its face appears to be objective, but a careful review of the article upon which the model is based shows that the MIMs model is based on a wide range of subjective variables that have not been identified or explained by the DOD. The number and type of vehicles and number of miles traveled appear to be objective metrics, but there is no indication that these variables will be

monitored by the Army or restricted if they exceed assumptions made in the model. In addition, the model relies on "Training Impact Factors" including Event Severity Factors ("the relative impacts of an event" compared to a standard Armor Battalion field training exercise), Vehicle Severity Factors (the relative impacts of a vehicle as compared to the M1 A2 tank), Vehicle Off-Road Factors (the percentage of vehicle miles typically driven off improved roads), Local Condition Factors (the relative impact of vehicle traffic due to different site conditions including soil moisture), and Vehicle Conversion Factors (the area impacted by a vehicle as compared to the M1 A2tank). Exhibit 137 at 2. In order for the model to work as intended, the Army had to assign numeric values to each of these variables, and there is no description of or explanation regarding how such values were assigned. Each of these data points is based on subjective assumptions that are neither explained nor described, rendering any results highly suspect.

Moreover, the model then assigns numeric values to a number of site-specific variables, including soil loss per unit area, rainfall and runoff factor, soil erodibility factor, slope length and steepness, cover and management factor, and support practice factor. *Id.* at 3. Although the first five of these factors can be measured in scientifically meaningful units, the Army then standardizes each "factor" into a value based on a scale of 0 to 1, with 0 representing "the worst" and 1 representing "the best." *Id.* at 4-6. This introduces more subjectivity into the equation because, once again, there is no indication regarding who made these value judgments in this particular case or what those judgments were based upon.

Ultimately, the modeling employs an intrinsic additive method to reach its conclusions, but such a linear calculation cannot possibly take all of the available information about resource degradation caused by military training into account. For instance, the model relies on the assumption that impacts increase on a linear basis with the increase in vehicle miles driven – under this view, a vehicle that is driven for 10 miles will cause half the environmental impact of a vehicle that is driven 20 miles. However, this approach fails to acknowledge that the severity of environmental impacts may increase exponentially and not on a linear basis. Vegetation or aquatic life may recover from some amount of military training use, but clearly there is a threshold at which impacts become so severe that vegetative or aquatic communities will simply not recover, and the model fails to consider this reality. The regression analysis relied upon by the Army involves multiplying a number of subjective variables to calculate a value between 1 and 0 in order to assess impacts, and this approach fails to conform to standard statistical practice.

It is simply not possible to use a straightforward linear calculation to predict the severity of environmental impacts related to an increase in military training. For instance, this model cannot account for pollutants and contaminants left behind in the environment after training (such as emissions, spent oil or lead). The model also cannot take into account

disturbance of the natural succession of plant communities. One can still see the tracks that covered wagons left imprinted on to the Santa Fe Trail as the result of travel that occurred 150 years ago – if vegetation is damaged beyond a self-sustaining threshold, what other vegetative communities will move in and how will the ecosystem change? The model takes none of this into consideration. Essentially all this model proves is that the impacts will be increasingly severe as the number of miles traveled increases – a self-evident proposition that does not need to be proven via the use of a complex model that is not comprehensible to the lay person. In addition, according to the model "weighted" values are assigned to each factor or variable – representing yet another opportunity for the introductive of subjective opinion into the equation. The article upon which the mode is based recites:

> The linear additive model in [5] reflects a composite land condition involving multiple factors. Individual factors are weighted to reflect their relative importance with respect to the overall land condition. Hence, factors that are deemed more significant indicators of land condition for a given location can be assigned higher weights thereby giving them greater importance in the estimation of the Land Condition Index.

Id. at 4. Once again – no information is presented to indicate who performed this "weighting" or by what standards they judged the significance of the factors or their relative importance with respect to overall land condition. Without understanding all of the data, the calculations, the assumptions, and the biases of the people running the model, the public has no opportunity to understand the meaning of the results. It is well known that when a person running a model has a bias toward a particular outcome, the subjective inputs can be skewed (consciously or unconsciously) in favor of the desired outcome.

The Final EA states that the number of CAB-related MIMs is comparable to experience at other Army installations but fails to identify which bases were considered. The Army suggests that "MIMs are more useful and relevant in considering impacts from heavy, mechanized maneuver, such as from tanks or other tracked vehicles." Final EA at C-320. If this is the case, however, then why was the MIMs methodology even used, if not simply for the purpose of generating a statistic that could be used to argue that any increase in environmental impacts would be slight? The Army should have made all information supporting its MIMs calculations available to the public, as we demanded in our original comment letter. Once again, it appears that the Army is using arbitrary and capricious numbers to lend an aura of scientific credibility to the assertion that segmented training impacts at the PCMS are not significant, thereby concealing from the public the true consequences of its plans and operations. Information about baseline data used to support

mathematical calculations should have been provided as part of the Draft EA, not simply thrown out at the tail end of a process with little or no contextual background.

Rest and Rotation

In its response to comments, the Army points out that Section 4.7.2 of the Integrated Natural Resources Management Plan ("INRMP") does discuss rest, rotation and deferment cycles. Final EA at C-320. As discussed in our original comment letter, Not 1 More Acre! notes that the INRMP has expired by its own terms and that many of the assumptions upon which it is based (including the participation of the Directorate of Environmental Compliance and Management ["DECAM"] and the U.S. Fish & Wildlife Service ["FWS"]) have changed. *Id.* at C-256 to C-261. However, the criticism leveled by Not 1 More Acre! remains valid – the record clearly indicates that over time the rest and recovery program has been significantly weakened by the Army. Originally the 1980 EIS contemplated that three-fifths of training lands would be rested for two entire growing seasons. The Army modified this system in 1990 due to purported "severe" limitations on military training options. Exhibit 22. Under the program at that time, only approximately 50% of available training areas were off limits to mechanized training at any one time, and resting areas were also opened to dismounted training. *Id.* The system was modified again in 1997 to "increase military training options." Exhibit 23. The system was modified again in 2005 when Soil Protection Areas were eliminated and additional land opened to mechanized training. Exhibit 34 at 117. According to the INRMP, "[t]he end result of the rest/rotation/deferment program at the PCMS is that virtually all areas of the PCMS (except the Cantonment Area and the Wildlife Area/Safety Buffer along the canyon rim) are open to some types of training virtually all of the time." Exhibit 34 at 117; Exhibit 64 at 137.

The Proposed Management of the rest, rotation and deferment program is described in Section 4.7.2.2 in the INRMP. Exhibit 34 at 118. The Funding Priority for the program is identified as Class 0, which upon information and belief is the lowest possible Funding Priority. *Id.* One objective of the program is to "select candidate deferment areas" with the concurrence of DOD leadership and "impose minimal training restrictions required to rehabilitate these areas." *Id.* Although the INRMP pays lip service to rest, recover and deferment, there is no indication in the record that rehabilitation sites have actually been selected by the Army. The Final EA claims that rest and recover periods result in what are now known as "limited use areas." Final EA at C-320 to C-321. Limited use areas are addressed in section 3.4.2.6 of the INRMP, which in its entirety contains the following passage related to the PCMS:

> The PCMS has training land classified as dismounted-only Training Areas (*i.e.*, Hogback, Soil Protection Sites, Purgatoire River side canyons, Gilligan's Island) and off-limits areas (*e.g.*, Cantonment Area). The PCMS also has a one-kilometer smoke-restricted zone.

Exhibit 34 at 61. Contrary to the Army's claims, the available information clearly shows that Fort Carson has consistently weakened the rest and recovery program over time to the point where virtually all of the land is available for training all of the time. The Army's refusal to acknowledge that military training causes significant impacts is arbitrary and capricious and inconsistent with the record. In the absence of factual data and information proving how the rest, rotation and deferment program has been operated, this program cannot form a basis for a FONSI.

The Army also indicates it engaged in a review process prior to deciding to open an additional 15,000 acres of Soil Protection Areas to mechanized maneuver training. According to the Final CAB EA, data collected pursuant to the Land Condition Trend Assessment ("LCTA") was used to compare certain characteristics of protected areas with those of areas open to training. Final EA at C-320. After the Army concluded that "[t]here was no significant difference" between protected areas and training areas, the Final EA indicates that the matter was "reviewed" by the Land Use Technical Advisory Committee and "subsequently approved" (although the text does not indicate by whom the decision was approved). *Id.* However, Not 1 More Acre! previously presented evidence in the original comment letter that appears to indicate that the Army abandoned the LCTA process sometime after 1999. If rest and recovery periods are still occurring today, why has the Army not publicly disclosed which areas have been rested for what periods of time? Where is the data and information supporting decision-making? Why has the Army refused to produce information collected during the ITAM and LCTA process? In the absence of objective information regarding these matters, the public has no way to monitor the Army's compliance with law. Therefore, the environmental analysis in the Final EA is arbitrary and capricious and fails to withstand scientific scrutiny.

The Army insists that it is still fulfilling its Sikes Act obligations even though it terminated its management agreement with the FWS and eliminated DECAM, noting that the Environmental Division of the Department of Public Works employees 34 full-time employees serving Fort Carson and the PCMS. Final EA at C-321. However, it is our understanding that DECAM had more than 100 full-time employees and that currently just two staffers are assigned to the PCMS. The elimination of more than 2/3 of environmental jobs at Fort Carson, and almost all oversight at the PCMS, is just one more circumstance

demonstrating how the Army continues to violate laws governing environmental analysis and public disclosure.

Tiering

IMCOM and its contractors state that the Final CAB EA is not designed to justify a decision already made because NEPA permits programmatic environmental review or "tiering." According to the Army, the decision to station a CAB at Fort Carson was made in the 2011 CAB Stationing PEIS. According to Council on Environmental Quality ("CEQ") regulations:

> Agencies are encouraged to tier their environmental impact statements to eliminate repetitive discussions of the same issues and to focus on the actual issues ripe for decision at each level of environmental review (§ 1508.28). Whenever a broad environmental impact statement has been prepared (such as a program or policy statement) and a subsequent statement or environmental assessment is then prepared on an action included within the entire program or policy (such as a site specific action) the subsequent statement or environmental assessment need only summarize the issues discussed in the broader statement and incorporate discussions from the broader statement by reference and shall concentrate on the issues specific to the subsequent action.

See 40 C.F.R. § 1502.20. Thus, "tiering" refers to the coverage of general matters in broader environmental impact statements (such as national program or policy statements) with subsequent narrower statements or environmental analyses (such as regional or basinwide program statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to statement subsequently prepared. *Id.* § 1508.28. In the context of national forest management, the programmatic stage is the level "at which the [agency] develops alternative management scenarios responsive to public concerns, analyzes the costs, benefits and consequences of each alternative in an environmental impact statement, and adopts an amendable forest plan to guide management of multiple use resources." *Ecology Ctr., Inc. v. U.S. Forest Serv.,* 192 F.3d 922, 923 n.2 (9th Cir. 1999). Following the programmatic stage is the "implementation stage during which individual site specific projects, consistent with the forest plan, are proposed and assessed." *Id.* A programmatic EIS must provide "sufficient detail to foster informed decision-making," but an agency need not fully evaluate site-specific impacts "until a critical decision has been made to act on site development." *Friends of Yosemite Valley v.*

*Norton,*348 F.3d 789, 800 (9th Cir. 2003) (quoting *N. Alaska Envtl. Ctr. v. Lujan,* 961 F.2d 886, 890-91 (9th Cir. 1992) (quotation marks omitted)). By way of illustration, the Army's own NEPA regulations state that "an appropriate way to address diverse weapon system deployments would be to produce site-specific EAs or EISs for each major deployment installation, using the generic environmental effects of the weapon system identified in a programmatic EA or EIS." 32 C.F.R. § 651.14(c)(1), fn. 2.

However, in this case it was not appropriate for the Army to determine where to train a particular Heavy CAB in a programmatic EIS that was intended to determine where to station said Heavy CAB. This decision is not a broad program or policy – it is a site-specific decision for activity in a defined geographic location that results in specific impacts that should have been studied in detail before the decision was made. CEQ regulations authorize programmatic EISs "for broad Federal actions such as the adoption of new agency programs or regulations." 40 C.F.R. § 1502.4(b). The Army's CAB Stationing PEIS is not similar to a programmatic NEPA analysis for a weapons system, which can analyze impacts that are common to the class of weapon without regard to where the weaponry might be deployed. *See, e.g., Chemical Weapons Working Group v. United States Dept. of Defense*, 655 F. Supp. 2d 18 (D.D.C. 2009) (approving of preparation of a programmatic impact statement for the entire chemical weapons destruction project followed by site-specific statements for each disposal facility).

The CAB PEIS reached a deeper level of specificity than is allowed in a true "programmatic" EIS because it identified a specific location for training and maneuvering of a new Heavy CAB unit to be stationed at Fort Carson. Although the CAB Stationing PEIS names Fort Carson as the location for a new Heavy CAB, the PEIS itself does not undertake a sufficient analysis of the specific environmental impacts associated with training of the Heavy CAB at the PCMS. Following issuance of the CAB Stationing ROD, which designated Fort Carson as the location for a new Heavy CAB, the Army undertook to prepare a site-specific EA. Based on the CAB Stationing PEIS's determination that a new Heavy CAB will be stationed at Fort Carson, however, the Final EA failed to take a hard look at any alternative in which the new Heavy CAB would not train at the PCMS. As a result, the Army's tiered NEPA analysis failed to consider reasonable alternatives including the training and maneuvering of the Heavy CAB at a location other than the PCMS, an independent and separate DOD installation from Fort Carson.

An EIS must describe and analyze alternatives to the proposed action. Indeed, the alternatives analysis section is the heart of the EIS. The agency must look at every reasonable alternative within the range dictated by the nature and scope of the proposal. The existence of reasonable but unexamined alternatives renders an EIS inadequate. *Friends of*

Southeast's Future v. Morrison, 153 F.3d 1059, 1065 (9th Cir. 1998) (internal citations and quotation marks omitted); *see* 40 C.F.R. § 1502.14 (stating that consideration of alternatives is the "heart of the environmental impact statement."); *Methow Valley Citizens Council v. Regional Forester,* 833 F.2d 810, 815 (9th Cir. 1987) (noting that "an environmental impact statement must consider every reasonable alternative" and that "the range of alternatives must be sufficient to permit a reasoned choice."), *rev'd on other grounds,* 490 U.S. 332, 109 S.Ct. 1835, 104 L.Ed.2d 351 (1989), *aff'd on remand,* 879 F.2d 705 (9th Cir. 1989).

California v. Block, 690 F.2d 753 (9th Cir. 1982), describes when site-specific analysis must occur as part of a programmatic EIS:

> The detail that NEPA requires in an EIS depends upon the nature and scope of the proposed action. The standards normally applied to assess an EIS require further refinement when a largely programmatic EIS is reviewed. The critical inquiry in considering the adequacy of an EIS prepared for a large scale, multi-step project is not whether the project's site-specific impact should be evaluated in detail, but when such detailed evaluation should occur. NEPA requires that the evaluation of a project's environmental consequences take place at an early stage in the project's planning process. This requirement is tempered, though, by the statutory command that we focus upon a proposal's parameters as the agency defines them. The requirement is further tempered by the preference to defer detailed analysis until a concrete development proposal crystallizes the dimensions of a project's probable environmental consequences. When a programmatic EIS has already been prepared, we have held that site-specific impacts need not be fully evaluated until a "critical decision" has been made to act on site development. This threshold is reached when, as a practical matter, the agency proposes to make an "irreversible and irretrievable commitment of the availability of resources" to a project at a particular site.

Id. at 761 (internal citations omitted). The challenge is to find the right balance between the efficiency benefits of tiering, described in 40 C.F.R. § 1502.20, deference to the agency's definition of the purpose and need of the proposed action, and the recognition that the PEIS constrains future decision-making and must therefore analyze alternatives in sufficient detail to prevent foreclosure of options with insufficient consideration. *Id.* at 762-63.

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 18 of 36

Here, the CAB Stationing PEIS and ROD made the decision to commit resources to a particular site – stationing a new Heavy CAB at Fort Carson. However, then the military improperly assumed that the PCMS would be the site for the Heavy CAB's maneuver training. The military admits that the decision to station a new Heavy CAB at Fort Carson was made prior to the preparation of the site-specific EA, and claims that it had no discretion to consider any alternative in the EA that would not involve training the Heavy CAB at the PCMS. Because the decision to commit resources to training the Heavy CAB at the PCMS was made during the PEIS process, more detailed site-specific analysis should have been undertaken in the PEIS. The conclusions articulated in the PEIS ROD as to the training of the Heavy CAB had little support in the document and no adequate analysis of alternative sites, requiring further analysis to support a decision that had already been made in the PEIS. However, the EA explicitly ruled out consideration of alternatives that trained the Heavy CAB at any location other than the PCMS on the grounds that this would be inconsistent with the PEIS. Before stationing the new Heavy CAB at any base which training area is inadequate to fulfill training requirement, DOD should have adequately considered the consequences of that decision.

As was the case in *'Ilio'Ulaokalani Coalition v. Rumsfeld,* 464 F.3f 1083, 1097 (9th Cir. 2006), "[t]he Army made site-specific decisions in the PEIS without analysis of their impacts or consideration of reasonable alternatives, as required by NEPA." Under these circumstances, the Army was not legally permitted to defer site-specific analysis until the EA, using the principles of "tiering" as a crutch. The Army assumed training of the Heavy CAB would be at the PCMS in the PEIS; however, it reached this decision based upon a deficient analysis of the environmental impacts and inadequate consideration of reasonable alternatives to using the PCMS for training. The military's approach is flawed because the DOD made a decision to station the Heavy CAB at an urban base that does not have sufficient land available to meet doctrinal maneuver training requirements, creating the impetus for the Army to usurp other public lands such as the PCMS, Bureau of Land Management lands, and U.S. Forest Service lands, while severely impacting private lands.

Without having adequately considered alternatives to CAB stationing or site-specific impacts to the PCMS in the PEIS, the Army had an obligation to consider such in the EA. The scope of reasonable alternatives to be considered in the EA could not be bound or limited by the PEIS's decision to station a CAB at Fort Carson due to the inadequacy of its advance site-specific analysis.

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 19 of 36

Cultural Resources

Lorraine Poulson, Colorado Council of Professional Archeologists (who serve as consultants with the Army in the cultural resources process), submitted comments indicating that:

> Then in Piñon Canyon, fortunately 23 percent of it has been surveyed, and there is 4,163 archeological sites. I know. Of which, 948 are eligible. So there's 948 precious, irreplaceable diagnostic, potentially important sites.
>
> * * * * * * * * * * * * * * * * * * *
>
> So for me, it's the 4,000 sites in Piñon Canyon that I hope the Army considers a way to set them aside, not -- not blast them.

Final EA at C-116. We agree.

The Final EA dismisses the fact that the National Trust for Historic Preservation ("NTHP") identified the Santa Fe Trail as one of the eleven most endangered historic places in 2007 on the basis that the NTHP concerns were related only to expansion of the PCMS. Final EA at C-64. According to the NTHP, however, the Santa Fe Trail was listed for the following reasons:

> In Southeastern Colorado, under uninterrupted blue skies, the Pinon Canyon area includes scenic buttes, river valleys, family ranches and historic and archeological sites that span 11,500 years...The Santa Fe Trail, in continual use for 60 years starting in 1821, as America's first great international commercial highway and a prominent route of exploration and western expansion. The Trail winds 1,200 miles across five states from Missouri to New Mexico...In addition, this rugged scenic area contains historic and prehistoric archeological sites, most of which have remained almost completely undisturbed. The excellent preservation and high density of sites-with features such as domestic architecture, rock art, discarded tools and food refuse items-make this an ideal area for future research.[8]

[8] http://www.preservationnation.org/travel-and-sites/sites/mountains-plains-region/pinon-canyon.html

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 20 of 36

The CAB Stationing PEIS represented that both a Programmatic Agreement ("PA") between Fort Carson and the Colorado State Historic Preservation Office ("SHPO") and an updated Integrated Cultural Resources Management Plan ("ICRMP") "will be completed prior to any site-specific NEPA for implementing CAB stationing at Fort Carson if a decision is made to station a CAB at Fort Carson. Site specific NEPA documentation will provide additional details on the PA and cultural resource management procedures at that time." Exhibit 14 at 5-55. As several commenters pointed out, these tasks have still not been completed. *See, e.g.,* Final EA at C-53 to C-55. A footnote to Section 4.8.1 of the EA admits the failing and recites that "Fort Carson continues to be responsible for adhering to the Section 106 process for all Federal undertakings, as defined in 36 C.F.R. 800.16(y)." Final EA at 4-8.1.

It has now been ten years since Fort Carson last approved an ICRMP, even though the Army's own regulations state that an ICRMP should be reviewed every three to five years. The Final EA states that "[i]n 2011, the Installation began a comprehensive revision of the ICRMP and a draft is currently in a first stage review. It is anticipated that this process will be completed in 2012." Final EA at C-53. However, this statement directly contradicts earlier Army statements. In the 2006 Draft PCMS Transformation EIS, the Army stated:

> The 2006-2010 ICRMP is under development, as is a Programmatic Agreement among the SHPO, the Advisory Council on Historic Preservation, and four Native American tribes that have a cultural affiliation with lands administered by Fort Carson. Draft versions of both documents are anticipated to be available by November 2006.

Exhibit 1 at 3-60 (emphasis supplied). In 2007 and 2008 the Army held meetings with stakeholders, but not all interested stakeholders were invited to participate. Final EA at C-54. On May 5, 2009, the SHPO wrote a letter to the Army requesting clarification of Fort Carson's conservation procedures due to the expiration of the 2006 ICRMP. *Id.*

In the meantime, the Army engaged in the so-called Warhorse Rampage training exercise in July and August 2010, which resulted in substantial damage to archaeological sites and cultural resources. On December 17, 2010, the Director of Federal Programs and Advisory Council for Historic Preservation ("ACHP") received a letter from the Fort Carson Garrison Commander stating that an initial draft of the PA had been circulated to Fort Carson personnel for comment. *Id.* at C-55. It is now eighteen months later and nothing has changed – there is no updated ICRMP and no PA with historic preservation officials. Moreover, on July 21, 2011, the Colorado SHPO received a letter from the Fort Carson Garrison Commander indicating that Fort Carson would initially only engage in Section 106

consultation with the SHPO, the ACHP and Native American tribes without involving interested parties in violation of the National Historic Preservation Act. *Id.* Fort Carson planned to consult secretly with the ACHP, SHPO and Tribes in an effort to reach "tentative resolutions" before consulting with interested parties, thereby circumventing the public process. *Id.*

The Final EA states that damage to cultural resources during the Warhorse Rampage training event "is not relevant to the proposed action" because "damage was caused by mechanized maneuver and not by aviation assets, nor aviation support vehicles." Final EA at C-184. However, Not 1 More Acre! believes that the issue is relevant because it shows serious failings of the Fort Carson cultural resources program that will lead to significant impacts to cultural resources at the PCMS. The Final EA reports that "[t]he Army is taking new, additional measures to exclude training activity with a potential to damage culturally-sensitive areas through improved mapping and marking as a means of protection." *Id.* These measures are not adequate – the Army has been following an illegal, truncated consultation process under Section 106 of the National Historic Preservation Act ("NHPA") that completely ignores public disclosure and consultation and NEPA compliance obligations. No further training – especially air-ground integration training - should occur at the PCMS until after Fort Carson has properly updated its ICRMP in accordance with law and complied with all appropriate provisions of the NHPA.

Air Quality

In the Final EA, the military states that "[t]he Army thoroughly analyzed air quality impacts from CAB stationing at Fort Carson and PCMS in Section 5.5.2 of the 2011 *CAB Stationing PEIS*, a document that is incorporated by reference into this CAB stationing implementation EA." Final EA at C-324. However, the Army fails to acknowledge in the Final EA the findings of significant impacts to air quality in the CAB PEIS. For instance, in response to a comment indicating that wheeled vehicles would travel off-road through 80% of the PCMS, the Army states that:

> CAB wheeled vehicles primarily operate on established roads and two tracks. These vehicles would not normally be traversing cross-country. Therefore, there would be limited fugitive dust emissions and minimal to no additional disturbance exposing soil to sun and wind.

Id. In the Final EA, however, the Army discloses that the majority of the land at the PCMS is designated as maneuver land. *Id.* at 5-3. Furthermore, the Final EA notes that:

> Undeveloped land uses are located on the rest of PCMS [apart from the cantonment area], otherwise referred to as the training area. Activities that occur within the training area are maneuver, dismounted, and small-arms live-fire training, recreation, and, in restricted areas, protection. Maneuver training areas comprise the majority of training land available at PCMS.

Id. at 5-7. The Final EA also admits that "there will be an increased frequency and intensity of use involving CAB training, including integrated training with ground maneuver BCTs." *Id.* at 5-8. Therefore, the impacts to air quality will not only be caused by the 250 wheeled vehicles, 900 soldiers, and 40 helicopters association with the Heavy CAB that will be training at one time, but also by integrated training with ground maneuver BCTs that will be dispatched with CAB vehicles for training throughout the majority of the 235,000 acres of maneuver land at PCMS.

The Army also incorrectly states that "[n]o construction is planned or required at PCMS as part of this proposed alternative." *Id.* at 5-8. In fact, the Army's response to Comment ID 270 states:

> As announced at the public meetings, the addition of a minor construction activity at the PCMS airfield was known to not have been included in the Draft EA.
>
> * * * * * * * * * * * * * * * * *
>
> The concrete pads would be placed on a current crushed gravel surface, addressing such environmental concerns as accidental fuel spills and dust generated from landings and take-offs on a gravel surface.

Id. at C-179. In the Final EA, the Army states:

> The proposed action does not change the training requirements of mechanized units; mechanized training is not part of the proposed action. Therefore, PM and smoke use is largely unrelated to the CAB's involvement in maneuver training.

Id. at C-324. This statement by the Army is false. As noted above, the proposed action will include integrated motorized and mechanized training that combines exercises by the Heavy

CAB and ground maneuver BCTs. Therefore, there will be a significant impact to the environment at PCMS from fugitive dust and smoke obscurants. The Army states further that "Section 4.3.1.1.3 has been updated to further discuss the Installation's fugitive dust management program, a program also applicable to CAB operations." Final EA at C-324. However, it is arbitrary and capricious for the Army to rely on a fugitive dust management program to conclude that impacts will be "insignificant." As stated in our original comment letter, the Fort Carson Grow the Army EIS acknowledges that "[t]heoretically, the resulting training of these higher numbers of units and Soldiers could increase the adverse effects to soils, vegetation, wildlife, and cultural resources in the downrange areas." *Id.* at 5-26. However, the analysis is limited because, according to the Army, "empirical data concerning effects is exceedingly difficult to produce in light of the considerable influence of unpredictable and uncontrollable variables such as weather and deployments of units." *Id.* Moreover, the Fort Carson Grow the Army EIS also continued to rely upon the very same "mitigation" measures - .i.e. the Army's existing land and environmental management programs such as the Fugitive Dust Control Plan – that were described in the PCMS Transformation EIS, even though the District Court has already determined that it is "arbitrary and capricious" for the Army to rely on these programs for the purpose of concluding that impacts would be "insignificant." Final EA at C-244 to C-245.

In the Final CAB PEIS, the Army reported the following estimated annual vehicle emissions generated from increased population due to the Heavy CAB:

- CO 261.1 Tons Per Year
- NOx 26.4 Tons Per Year
- VOC 27.1 Tons Per Year
- Sox 0.40 Tons Per Year
- PM10 3.1 Tons Per Year
- PM25 2.0 Tons Per Year
- CO2 37,575.20 Tons Per Year
- CH4 2.4 Tons Per Year

Exhibit 14 at 5-16, Table 12. The Army further states that "[w]ith increased training, there is a risk that there may be an increase in fires, which emit PM10." *Id.* at 5-16. The Army states in the PEIS that "[a]dditionally, combustion of JP8 fuel by helicopters will generate 163.57 tons of CO, 13.64 tons of NO2, 4.71 tons of PM10/PM25, 4.75 tons of SO2, and 133.15 tons of VOCs annually during training exercises." *Id.* It is clear that the impacts to air quality from the proposed action will be significant.

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 24 of 36

Greenhouse Gasses and Climate Change

The Army states in the Final EA:

> The Army has considered aircraft emissions during travel to/from PCMS; however, such emissions have not been broken down into the various places or routes where they occur. The Army considered emissions based on projected flight hours. The Army has estimated that up to one third of CAB flight time may occur at PCMS.

Final EA at C-324. Nevertheless, the Army states in the CAB PEIS that "[f]or GHG and climate change, a rough estimate of the carbon emissions from CAB operations can be obtained by taking the hours that will be flown by the aircraft, determining the gallons of fuel to be used, and thereby determining the likely annual emissions (Table 13). Exhibit 14 at 5-17. The Army's Emission Calculations in Table 13 show Annual Direct GHG Emissions from Aviation Asset Flight Operations of 50,636.0 tons of CO2 per year, 1.6 tons of N2O per year, and 1.4 tons of CH4 per year, for a Total Annual GHG Emissions as CO2e = 51,174.7 tons per year. *Id.* at 5-18. The Army further states that "[i]n addition to GHG impacts from helicopter training it is estimated that the tactical ground vehicles of the CAB will use approximately 148,000 gallons of JP-8 fuel annually. This will be estimated to contribute up to an additional 10,608 tons of CO2e per year." *Id.* at 5-18.

The Army further states that "the addition of CAB Soldiers and their Families will be expected to increase vehicle miles driven in and around the installations by 70,750,880 miles at each location annually. Assuming a privately owned vehicle fleet fuel efficiency average of approximately 24 miles per gallon, an additional combustion of approximately 2,947,950 gallons of gasoline will be expected to result in an additional 26,207 tons of CO equivalents according to calculations and conversions used by the EPA." *Id.* at 5-19. The CAB PEIS further states that "[t]he cumulative impact from combustion of fossil fuels for tactical and privately owned vehicles, when combined, is anticipated to result in the release of an additional 87,989.7 tons of CO2 GHG equivalents. This estimate includes additional use of helicopters, ground support vehicles and indirect impacts of commuter traffic. These GHG impacts will only be realized on a global scale if a new CAB is added to the Army's force structure, and not in the case that existing units are realigned to form the CAB." *Id.*

Since the proposed action is "to activate a new Combat Aviation Brigade (CAB) and station it at Fort Carson, resulting in a total growth in Army forces and equipment of approximately 2,700 soldiers and 113 helicopters," Final EA at 1-1, the adverse impacts of the proposed action to the air quality are significant. The Army states that "[i]f a new CAB

is stationed at Fort Carson, it will contribute GHGs to the earth's atmosphere by adding vehicles, personnel, facilities, and their associated emissions. The global concentration of CO2 in our atmosphere today far exceeds the natural range over the past 650,000 years. Global surface temperatures have increased about 33.33° Farenheit (0.74°Celsius) (plus or minus 32.32° Farenheit [0.18° Celsius]) since the late 19th century." Exhibit 14 at 5-20.

The Army continues to state that "[t]he increase in CHGs adds to the risk of changing climate, affects of which could include changes in species distribution, species viability, increased flooding, higher sea levels, population displacement, and increased risk of drought and desertification. For example, global climate change will have combined effects on the PCMS area because of continuing long-term drought. Changing patterns of precipitation could accompany climate change. PCMS could end up drier than its current state." *Id.* at 5-20. The CAB PEIS also discusses the recent Air Force proposal for the establishment of a Low Altitude Tactical Navigation (LATN) area in northern New Mexico and southern Colorado, and states that "[t]he USAF LATN proposal for use of low altitude airspace for military training will cumulatively increase air emissions in southern Colorado in conjunction with the Army's CAB stationing proposal if Fort Carson were selected for CAB stationing." *Id.* at 5-21.

Clearly, it is arbitrary and capricious for the Army to conclude that "[t]he direct and cumulative impacts of implementing this decision will not contribute significantly to the degradation of air quality in the region … or produce violations to air quality." *Id.* at 5-20. The CAB PEIS is also inadequate because it concludes that "[c]umulatively, the projected increase in training maneuvers at PCMS resulting from the need to train more Soldiers is expected to create less than significant impacts." *Id.* at 5-21.

Biological Resources

The Final EA states that "[t]here are no endangered, threatened, or candidate species at PCMS." Final EA at C-325. However, the rich and unique biodiversity of plants and animal species at the PCMS is demonstrated by a recent bio-blitz that found that some of the highest levels of biodiversity in the State of Colorado are located on the JE Canyon Ranch, a 50,000 acre ranch in southeastern Colorado that borders the northeast boundary of the PCMS. In its comments on the Draft CAB PEIS, JE Canyon Ranch stated:

> Additional soldiers and development at Fort Carson might impact threatened and endangered species at PCMS. Mexican spotted owl (federally listed as threatened) habitat, burrowing owl, mountain plover, ferruginous hawk and swift fox are present PCMS. A full

> inventory of threatened and endangered species must be performed prior to implementation of the proposed action. Moreover, the Army must prevent any "taking" of a threatened or endangered species at PCMS by developing mitigation that precludes any killing of such species or adverse impacts to their habitat.

Exhibit 14 at F-12. JE Canyon Ranch also pointed out that bald and golden eagle nests and habitat exist at the PCMS. *Id.* Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act, 16 U.S.C. §§ 668-668c. Finally, JE Canyon Ranch informed the Army that:

> Migratory birds and other wildlife exist on PCMS. The Army must inventory all wildlife species and prepare mitigation measures to protect wildlife and the habitat they depend upon.

Id. In comments submitted on the Draft EA, JE Canyon Ranch stated:

> The JE Canyon Ranch occupies approximately 50,000 acres in southeastern Colorado in the heart of the Southeast Colorado's Canyonlands country. The Ranch borders the northeast boundary of the Pinon Canyon Maneuver Site and includes a significant section of the Purgatory River canyon.
>
> * * * * * * * * * * * * * * * *
>
> The Ranch contains some of the highest biodiversity in the State of Colorado. In June of 2010, a team of biologists from across the United States conducted a bioblitz on the JE Canyon Ranch for 24 hours. During that time, the scientists documented a total of 865 species, including 20 mammals, 62 birds, and 18 amphibians and reptiles. The Ranch contains two large herds of bighorn sheep, resident mountain lions, elk, and pronghorn, among other animals. The Ranch is home to fully 25% of all mammal species found in the State of Colorado. In addition, the Ranch contains a significant number of bird species including several species of significant concern. The Ranch is home to nesting peregrine falcons, a species of conservation concern, and the long-billed curlew, a species which has been significantly declining throughout its range.

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 27 of 36

Final EA at C-187 to C-188. According to the Rocky Mountain Bird Observatory ("RMBO"), the June 10-11, 2010 Bioblitz event was organized by Colorado Natural Heritage Program ("CNHP") and Denver Botanical Gardens and sponsored by the landowner with the purpose of documenting as many plant and animal species as possible within 24 hours.[9] The RBMO reports that:

> The ranch is near the confluence of the Purgatory River and Chacuaco Creek, where the canyons can be as deep as 1,000 feet and up to 2 miles wide. The canyon bottoms are rich in vegetation, wildlife, historical sites, Native American rock art, and dinosaur tracks (150 million years old, the area was part of a large, shallow lake and was teeming with Brontosaurs and Allosaurs!).[10]

A beautiful photo of the Upper Purgatoire Canyon and a list of some of the 924 species identified in the 24-hour period can be viewed at http://www.rmbo.org/blog/?p=495.

The Final EA states that "[t]he proposed action will not increase mechanized maneuver training." Final EA at C-325. However, the Army also admits that "there will be an increased frequency and intensity of use involving CAB training, including integrated training with ground maneuver BCTs." Exhibit 14 at 5-8. As discussed above, transformed BCTs are mechanized and motorized. The Army goes on to state that "[m]ilitary training can affect environmental resources, but there is no evidence indicating training-associated changes of natural communities result in irrevocable loss of any plant or animal species." Final EA at C-325. This statement is false, as demonstrated by the discussion of the After Action Reports in our original comment letter. *Id.* at C-289 to C-290.

The Final EA claims that "[t]he effects of aviation training of this proposed action would be confined to landing zones, refuel points, roads and trails, and bivouac areas. Overall effects of aviation training would be minimal." *Id.* at C-325. As discussed earlier, this statement is false because the Army admits that the majority of land at the PCMS is designated as maneuver land," *id.* at 5-3, and "activities that may occur within the training areas are maneuver, dismounted, and small-arms live-fire training, recreation." *Id.* at 5-7. The Final EA also states that "there will be no change to nonmilitary land use on Fort Carson and PCMS, such as recreation and access by tribes to cultural and natural resources. Training area land use is expected to remain unchanged; however, there will be an increased

---

[9] http://www.rmbo.org/blog/?p=495
[10] *Id.*

frequency and intensity of use involving CAB training, including integrated training with ground maneuver BCTs." *Id.* at 5-8. Therefore, the overall effects of aviation training would, to the contrary, not be minimal.

The Final EA also states that that "[t]raining-related impacts to plant and animal communities are generally localized, resulting in a seral stage change at the site"; "[s]ites affected by training recover naturally as do ecosystems impacted by fire, disease, and other natural causes that result in loss of vegetative cover and an increase in bare soil, and loss of some wildlife"; and "[t]raining related to the proposed action would have negligible impacts to trees." *Id.* at C-325. These statements are false. As discussed above, training will result in adverse impacts throughout the PCMS; many of the impacts are totally destructive in nature; and damage to Piñon-Juniper ecosystems will require at least 150 years to rehabilitate.

The Army further discusses vehicle-related wildlife mortality in the Final EA. The Army states that "[t]he Army recognizes the importance of these species to the grassland ecosystem and has implemented management actions and regulations to mitigate potential training-related mortality." *Id.* These arguments were refuted by Not 1 More Acre! in our original comment letter. Final EA at C-292 to C-293. The Army then states:

> In 1997, the Sikes Act was amended to require a voluntary natural resources management plan, cooperatively developed by the USFWS, for every DOD installation having significant natural resources, and the respective state wildlife agency. Since 2002, the Installations' natural resources management has been conducted cooperatively with the CDOW and the USFWS by actions agreed upon and prescribed in an INRMP.

Id. at C-326. This statement by the Army is contradicted by the following statement by the U.S. Army Environmental Command:

> The Sikes Act passed in 1960 and subsequently amended, was and remains a major influence on Army natural resource management policies and programs. The Act directs the Secretary of Defense to carry out a program for the conservation and rehabilitation of natural resources on military installations. This is primarily accomplished through the mandatory preparation of individual integrated natural resources management plans (INRMPs). The INRMPs, prepared cooperatively with the U.S. Fish and Wildlife Service (USFWS) and

> state fish and game agencies, must ultimately reflect the mutual agreement of all parties.[11]

Water Resources

The Final EA states that "[a]s noted in Section 4.6.2.2, the impacts of the proposed action on water resources at, adjacent to, and downstream from PCMS would be minimal"; and that "water segment downstream – COARLA07: Purgatoire River, I-25 to Arkansas River is on the 303(d) list for selenium and on the Monitoring and Evaluation list for sediment. However, the flow and sediment load coming from PCMS drainages into the Purgatoire River is small." *Id.* at C-327. The Army's suggestion that the impacts of the proposed action on water resources would be minimal and that the sediment load entering the Purgatoire River from PCMS drainages is small are incorrect. Not 1 More Acre! addressed these points in its original comment letter. *Id.* at C-302 to C-306. In addition, the U.S. EPA Region 8 (Larry Svoboda) submitted comments on the Draft CAB PEIS indicating that:

> The proposed project should be evaluated for its potential to alter stream discharge and degrade riparian and water quality. The introduction of sediments to stream systems can alter thermal processes, consequently degrading water quality, and impacting fish and their habitat. Section 303(d) of the CWA requires the States of Washington and Colorado to identify those waterbodies that are not meeting or not likely to meet State water quality standards. Project planning should evaluate which waterbodies that are listed on the State's current 303(d) list that could potentially be affected by the project and whether a water quality restoration plan (Total Maximum Daily Load) has been developed for the waterbodies and the pollutants of concern. If a Total Maximum Daily Load (TMDL) has not been established for those waterbodies on the 303(d) list, then in the interim until one is established, the project should demonstrate that there will be no net degradation of water quality to these listed waters.
>
> In Colorado, the section of the Purgatoire River from I-25 to its confluence with the Arkansas River is identified on the 303(d) list of impaired waters for Se. This same segment is also identified on

[11] http://aec.army.mil/usaec/forestry/resources02.html (emphasis supplied).

> Colorado's Monitoring and Evaluation List for sediment. Se is naturally occurring within sediments of this region of Colorado.
>
> Activities which disturb the soil in the PCMS have the potential to contribute both Se and sediment to the Purgatoire River. EPA recommends that the Draft PEIS specifically address potential impacts to the Purgatoire River, as well as mitigation for those impacts.

Exhibit 14 at F-17 to F-18.

In the Final EA, the Army attempts to minimize the increase in sediments and sediment-derived nutrients to the Purgatoire River caused by the CAB training by stating that "sediment concerns attributable to training operations … are more related to the amount of mechanized maneuver training than any impact anticipated from CAB support of such training." Final EA at C-327. As discussed above, the Army states in the Final CAB EA that "there will be an increased frequency and intensity of use involving CAB training, including integrated training with ground maneuver BCTs." Exhibit 14 at 5-8. Therefore, the increased frequency and intensity of use involving CAB training, including integrated training with ground maneuver BCTs, will result in increased disturbance of soils and increase in sediments and sediment-derived nutrients to the Purgatoire River.

Finally, the Army attempts to minimize the impact of the new Colorado Nutrients Management Control Regulation #85 by focusing on Final Nutrient Permit limits at the Fort Carson wastewater treatment plant. Final EA at C-327. These new nutrient regulations, however, will result in 303(d) listings for nutrients (nitrogen and phosphorus) in surface water bodies of the state. Therefore, increases in releases of sediment-derived nutrients from PCMS to the Purgatoire River could have a significant impact.

Land Use

The Final EA states that:

> Section 4.2.2.2 concludes that land use impacts at PCMS as a result of the proposed action are less than significant. In fact, most of land use impacts of the proposed action would affect Fort Carson, not PCMS.

Final EA at C-328. This statement is false. As discussed above, the impacts of the proposed action to the land use at PCMS will be significant because the majority of the land at the PCMS is designated for maneuver training, where mechanized, dismounted and small arms

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 31 of 36

live fire training can occur. Exhibit 14 at 5-3 & 5-7. The CAB PEIS admits that "there will be an increased frequency and intensity of use involving CAB training, including integrated training with ground maneuver BCTs." *Id.* at 5-8.

The Final EA claims that "the Army does not have any NOE flight routes over private property in southeastern Colorado and Section 4.11.1.1 has been updated to reflect this correction of the location of NOE routes." Final EA at C-328. In addition, the Final EA states that "Route Hawk is a low-level flight route, not a NOE flight route. Section 4.4.2.2.4 has been updated to reflect this correction." *Id.* at C-7 to C-9. The Final EA states that:

> The area between Fort Carson and PCMS does not have established air corridors. The only restriction is that aircraft must maintain a minimum altitude of 700 feet AGL (231 m AGL) unless they are operating in a designated low-level or NOE training route. A route has been established between Fort Carson and PCMS for the purpose of conducting both day and night low-level tactical navigation operations (Figure 8). Route Hawk is one mile (1.6 km) wide; 0.5 mile (0.8 km) either side of centerline with a floor of 100 feet AGL (30.5 m 3647 AGL) and a ceiling of 300 feet AGL (91 m AGL) (CHPPM, 2008a).

Id. However, the Final CAB PEIS defines check points for the Route Hawk flight route and states that "Low-level training route (Hawk) is established for the purpose of training low-level navigation for day, night, and NVG operations. Use of the route is reserved through BAAF Base Operations to deconflict traffic." In addition, the CAB PEIS states that:

> The addition of a CAB will increase the frequency of aerial maneuver training at Fort Carson and between Fort Carson and PCMS. (See Appendix B for the flight path established for the purpose of conducting both day and night low-level tactical navigation operations between Fort Carson and PCMS.)

Exhibit 14 at 5-25. The Army provides a map of Route Hawk between Fort Carson and PCMS in the Final CAB PEIS and in Appendix B. *Id.* at 5-70 & B-32. The impacts of low-level military flights in air corridors and in Route Hawk between Fort Carson and PCMS will be significant.

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 32 of 36

Noise Impacts

The Final EA claims that "although the proposed action would result in minor impacts to noise, the total sound exposure (the aircraft would be in transit, number of helicopters per event would be small, and training events would be limited at PCMS), would be less than significant and is not anticipated to adversely affect the general quality of life within the region." Final EA at C-328. However, the Army reported in the Final CAB PEIS that:

> Per Section 2.3, the additional flight operations resulting from a CAB stationing at Fort Carson will increase Fort Carson and PCMS air time by an annual average of 24,800 flying hours. As detailed in Section 2.5.4, it is estimated that up to one third of total estimated CAB flight time (see Tables 3 and 4) may occur at PCMS. As of the end of FY10, Fort Carson (to include PCMS) had a total of 17,223 flying hours.

Exhibit 14 at 5-25. One third of 24,800 is 8,267 flying hours that may occur at PCMS. 8,267 hours divided by 24 = 344.4 days of flying hours that may occur at PCMS. This equals 90% of the year. Therefore, noise the impacts of flights to, from, and at the PCMS will be significant.

The Army stated in the Final CAB PEIS that "[e]ffects to existing land uses will be an increase in the frequency of noise from helicopter training over current levels (see Section 5.6)." *Id.* at 5-8. As stated in our original comment letter, however, at 117, "[t]he Army's conclusion that the noise impacts from the proposed action will be less than significant, Exhibit 16 at 3-2, is arbitrary and capricious." Final EA at C-311.

Socioeconomic Impacts to Rural Communities

The Army attempts to minimize the socioeconomic impacts of the proposed action on rural communities, rejecting Not 1 More Acre's comments in this regard on the basis that "expansion of PCMS is neither part of the proposed action nor part of any current Army plans. The impact to the economy from a perceived threat of expansion, a random variable, is not reasonably susceptible to objective measurement or reliable evaluation." Final EA at C-328. However, the proposed action does indeed include "expansion" – by which we mean an increase or amplification of the amount and intensity of training use on the ground surface and waterways of the PCMS, the airspace over the PCMS, the lands surrounding the PCMS and airspace between Fort Carson and the PCMS, and on BLM and U.S. Forest Service lands. Indeed, the CAB PEIS admits that "there will be an increased frequency and intensity

of use involving CAB training, including integrated training with ground maneuver BCTs." Exhibit 14 at 5-8.

Contrary to claims by the Army, there will indeed be a change to nonmilitary recreation use and access by tribes to cultural and natural resources of the PCMS. The Final CAB PEIS discloses that:

> An increase in the frequency of training could affect nonmilitary land uses of recreation and access by tribes to cultural and natural resources. Currently, maneuver training areas are open to recreational uses when there is no scheduled maneuver training. However, the addition of CAB training at Fort Carson and PCMS may increase the number of operating hours for maneuver training. The opportunities for access to training areas for recreation will be reduced in those areas that support recreation.

Exhibit 14 at 5-8 to 5-9. There are numerous comments in the CAB EA regarding the profound and significant adverse impacts on use, for example, of the Comanche Grasslands, the Apishapa State Wildlife Area, the Santa Fe Trail, and the national forests and mountains of Colorado.

In addition, there will be a significant expansion of the frequency and intensity of use involving CAB training, including training with ground maneuver BCTs. The impacts of this increase in frequency and intensity of use will be extremely significant on PCMS; as well as extremely significant to the populations, wildlife and environment on the ground and in the airspace to and from Fort Carson and PCMS, the national forests and BLM lands in the mountains of Colorado, and to all of the populations, wildlife, and environment in the rural areas surrounding PCMS. The Army also fails to address the significant adverse impacts to the economy of the region surrounding the PCMS and under the airspace to and from Fort Carson to the PCMS.

The Final EA states that "[a]t PCMS, aircraft noise and fugitive dust from training are potential impacts, which could affect the population near PCMS, including some minority Hispanic populations as well as some enclaves of economically disadvantaged populations." Final EA at 4.9-2. In addition, the Army fails to address the significant loss to the economy of the region around PCMS. There are many comments on the Draft EA regarding losses to ranching and agriculture, diminished property values, and thwarted investments in the regional economy.

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 34 of 36

The Army also attempts to minimize the significance of impacts on rural communities caused by increased traffic congestion on I-25 and US 350. In the Final CAB PEIS, the Army reported that military convoys must comply with a lower speed limit than regular traffic. Exhibit 14 at 4-15. The Final CAB PEIS also predicts increased convoy traffic. *Id.* at 4-30. Moreover, the CAB PEIS notes that the projected growth to 26,000 soldiers stationed at Fort Carson will impact traffic congestion in the region because CAB soldiers and family members are projected to generate approximately 70,750,880 vehicle miles per year traveled on the installation and surrounding area. *Id.* at 5-72. In addition, units from the CAB will fly their aircraft and drive their wheeled vehicles by convoy to conduct training at PCMS. *Id.* at 5-74. Finally, the CAB PEIS notes that the "increase in vehicles miles traveled will likely cause an increase in vehicle crashes and injuries and fatalities from those crashes." *Id.* at D-22. Specifically, the Army calculated based on government statistics that there would be 141 vehicle crashes per year as a result of the proposed action, resulting in 58 injuries and one fatality. *Id.* at D-22.

The Final EA also fails to address the significant adverse impacts to public use of the airspace surrounding the PCMS. For example, JE Canyon Ranch notes in comments on the Draft EA that:

> The JE Canyon Ranch has a private airport registered with the Federal Aviation Administration known as JECAN. The airport is regularly used by private aircraft to access the Ranch, conduct aerial surveys, and manage the wildlife and cattle herds. Additionally, the Ranch also often is used by the glider pilots.

Final EA at C-188. JE Canyon Ranch then goes on to point out that:

> According to the draft EA, the proposed federal action includes training activities at the PCMS. Specifically, the proposed action includes specialized training of CAB units on lands other than Fort Carson or PCMS, "including the regional air space surrounding the PCMS." The EA estimates the average number of required annual flight hours for CAB is estimated at 22,957, or 62 hours per day. As part of the proposed action, the Army is planning to conduct Nap-of-the-Earth flights ("NOE"). These flights will be conducted within the Military Operations Area "MOA") surrounding the PCMS as well as over the PCMS. NOE flights are conducted at varying airspeeds as close to the earth's surface as vegetation and obstacles permit. It is our understanding that NOE flights will occur along the cap rock of the

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 35 of 36

> Purgatory River canyon as well as over property owned by the JE Canyon Ranch. Because of the interesting and varied terrain associated with the Purgatory River Canyon owned by JE Canyon Ranch, it is likely that pilots will want to fly NOE flights in the canyons at levels less than 30 feet above the ground.

Id. at C-188 to C-189. Finally, the JE Canyon Ranch notes that:

> As indicated above, the JE Canyon Ranch includes an operating airport with frequent inbound and outbound flights. The draft EA makes no mention of the affect of the proposed NOE flights on this operating airport and on the safe use of the JE Canyon Airport... The expansion of military operations in the MOA has the potential to significantly affect the safety of members of the public who use glider aircraft on the JE Canyon Ranch.

Id. at C-190. Based on the foregoing circumstances, it is arbitrary and capricious for the Army to conclude that the impacts to the socioeconomics of the communities surrounding PCMS, to and from Fort Carson to PCMS, and in the Colorado national forests and mountains, will not be significant.

Conclusion

For the reasons discussed above, the Final EA and Draft FONSI are inadequate and preclude meaningful disclosure and analysis of impacts. Chief among the deficiencies is the Final EA's failure to take a "hard look" at potential environmental, archaeological, historical and socioeconomic impacts. Impacts are often not disclosed, stated as obvious generalities without attempt at quantification or discussion, understated, or stated in a manner intended to mislead the public into believing they are insignificant. The Final EA does not disclose or make use of the best available scientific information to analyze impacts. Information relevant to reasonably foreseeable adverse impacts that is critical to the decision makers arriving at a reasoned choice among alternatives is not included in the Final EA. This includes data relative to ecological sustainability of maneuver activity. There is therefore no disclosure of how or why the decision makers will make a decision, *i.e.* no clear basis for choice among alternatives based upon impacts and their significance. In addition, mitigation is not adequately discussed for many resources and the Army has therefore failed to adopt mitigation measures adequate to reduce the impacts. The Final EA also does not rigorously explore and objectively evaluate reasonable alternatives as required by NEPA. Additionally, the Proposed Action will likely cause violation of the NHPA, the Migratory Bird Treaty Act

ALPERN MYERS STUART LLC
ATTORNEYS AT LAW

U.S. Army Environmental Command
Re: Comments on Final Fort Carson CAB EA and Draft FONSI
June 13, 2012
Page 36 of 36

("MBTA"), and the Sikes Act. For all of these reasons, the Final EA does not discharge the Army's obligations at law and, accordingly, no further training or construction should occur on the PCMS.

The Final EA and Draft FONSI are fundamentally flawed and violate the intent and plain language of NEPA in a myriad of respects. Therefore, the Army must withdraw the Final EA and immediately cease any training activity at the PCMS.

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.

Very truly yours,

Stephen D. Harris

