

Piñon Canyon Maneuver Site (PCMS) Training and Operations

Record of Decision (ROD)

May 2015



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1 RECORD OF DECISION FOR PIÑON CANYON MANEUVER SITE TRAINING AND
2 OPERATIONS

3 **1.0 EXECUTIVE SUMMARY**

4 As the Executive Director of the U.S. Army Installation Management Command, I have reviewed
5 the *Piñon Canyon Maneuver Site (PCMS) Training and Operations Final Environmental Impact*
6 *Statement (EIS)* (FEIS). This FEIS adequately evaluates the potential environmental and
7 socioeconomic effects of the proposed establishment and use of brigade-level training intensity
8 measures, as well as the proposed readiness training using new tactics, equipment, and
9 infrastructure improvements at PCMS. The FEIS, made available to the public on March 13,
10 2015, is incorporated by reference in this Record of Decision (ROD). This ROD explains that the
11 Army will proceed with its preferred alternative identified in the FEIS, Alternative 1B. This
12 alternative will allow enhanced and updated brigade-level training, and will allow the Stryker
13 family of vehicles to train at PCMS. In addition, it will enable enhanced readiness training
14 through the use of electronic jamming systems, laser targeting, demolitions training, unmanned
15 aerial systems training, unmanned ground vehicle training, airspace reclassification, and drop
16 zone development. This alternative best meets the Army's need to conduct realistic and
17 coordinated large-scale training that integrates the ground and air resources of assigned and
18 visiting units including mechanized, infantry, support, and combat aviation assets. Aviation
19 rocket and flare training as well as two of the demolition sites have been removed from
20 consideration. As part of the implementation of this decision, the Army will take practical
21 measures to mitigate impacts to protect and sustain the environment.

22 **2.0 BACKGROUND**

23 PCMS is a military training site for Fort Carson, Colorado. PCMS is located near Trinidad,
24 Colorado, approximately 150 miles southeast of Fort Carson, and consists of approximately
25 235,000 acres. The primary PCMS mission is to support maneuver training for units up to
26 brigade size stationed at Fort Carson that need large contiguous maneuver and training areas.
27 PCMS is an important training center and is vital to Fort Carson's preparation of Soldiers for
28 combat missions as its size supports large training exercises that cannot be accommodated on
29 Fort Carson alone.

30 Brigade-level training is currently authorized at PCMS under the *1980 Final Environmental*
31 *Impact Statement for Training Land Acquisition* (1980 EIS). The 1980 EIS projected that the
32 maneuver site would allow from 4.4 to 4.7 armored brigade training periods annually, with a
33 single training period generally as 30 days. The 1980 EIS defined an armored brigade training
34 period to consist of a maximum of 5,085 personnel and approximately 826 wheeled and 432
35 tracked vehicles within a training area. It also included approximately 774 hours of helicopter
36 support, and approximately 100 tactical support missions from the U.S. Air Force (USAF), which
37 were to be spread throughout all training events annually.

38 Since the release of the 1980 EIS, Brigade Combat Team (BCT) units have changed
39 configuration. Fort Carson's BCTs are approximately the same size as the brigades that were
40 anticipated to train in 1980, but current BCTs utilize different equipment than was used in 1980.
41 In addition, over the past decade, due to deployments to Iraq and Afghanistan, Fort Carson's
42 BCTs have seldom had the opportunity to train at PCMS. During the past five years, only two
43 BCT exercises were conducted at PCMS. BCT units would return from deployment, replace and
44 repair equipment, receive replacement Soldiers, train to standards in preparation to rotate to a
45 combat training center, and deploy again.

1 Now that overseas commitments have slowed, Fort Carson's BCTs are expected to resume
2 training at PCMS authorized in the 1980 EIS with greater frequency. Soldiers who deployed on
3 a more or less regular basis for the past decade maintained their skills by a combination of pre-
4 deployment training at the Army's combat training centers and by direct application in combat.
5 With diminished overseas commitments, Soldiers must now train more often at home station in
6 order to sustain their skills. In addition, over the last decade of combat operations, Fort Carson's
7 BCT Soldiers primarily conducted counterinsurgency (COIN) operations; that is, a variety of
8 missions against unconventional insurgent forces. These COIN missions were different than the
9 decisive action mission BCT Soldiers are trained for as their core skill. Fort Carson BCT
10 Soldiers must retrain in their core decisive action skills; that is, traditional, large scale, force-on-
11 force operations against a conventional enemy.

12 Combat training centers, such as the National Training Center at Fort Irwin, California, lack
13 sufficient capacity to host all of the home-stationed brigade-level training required to maintain
14 Soldier readiness across the Army. PCMS supports the capacity for Fort Carson's BCT Soldiers
15 to sustain their readiness and execute decisive action brigade-level training.

16 The Army needs to conduct realistic and coordinated large-scale training that integrates the
17 ground and air resources of assigned and visiting units, including mechanized, infantry, support,
18 and combat aviation assets. To accomplish this, the Army must maintain large maneuver and
19 training areas of varying characteristics and complex terrain. Advances and changes in
20 equipment and weapons systems and their coordinated use require changes to the manner in
21 which PCMS is internally configured and utilized.

22 Fort Carson needs to have the ability to make changes to the training capabilities and
23 infrastructure (drop zones and restricted area [airspace]) and to execute new training at PCMS.
24 These are necessary changes to meet the needs of the Army for two reasons. First, as the
25 deployment cycle slows, and the number of Soldiers residing at Fort Carson increases (although
26 the number assigned remains the same), competition among units for training time and space at
27 Fort Carson will sharply increase. Fort Carson is not large enough to meet all such training
28 requirements. Second, conducting enhanced readiness training in conjunction with BCT training
29 events makes the overall BCT training experience more realistic. This makes the unit more
30 likely to succeed at combat training centers and during actual combat deployments.

31 **3.0 PROPOSED ACTION**

32 As discussed in the FEIS, the Army's Proposed Action proposes to train Fort Carson's BCTs in
33 full brigade-size exercises at PCMS. The action supports training opportunities, such as the use
34 of systems not previously used at PCMS, and the establishment of new training activities and
35 infrastructure components. The Army also would integrate existing (but relatively new) land
36 management and sustainability programs at PCMS in conjunction with BCT training. Although
37 this FEIS would supersede the 1980 EIS, the training would not exceed the annual training
38 duration established in the 1980 EIS. Maneuver training would continue to occur entirely within
39 the existing boundaries of PCMS (except for limited air and convoy operations). Nothing in this
40 action requires or proposes land expansion of PCMS.

41 **4.0 ALTERNATIVES**

42 The FEIS evaluated three alternatives in detail: two Proposed Action Alternatives and a No
43 Action Alternative.

44

1 **Proposed Action Alternative 1A – Brigade Maneuver Training and Maneuver Impacts**
2 **Measurement**

3 Proposed Action Alternative 1A would establish and implement new brigade-level training
4 intensity measures, update brigade training period equipment compositions and training
5 methods relative to the 1980 EIS, and enable the Stryker family of vehicles to train at PCMS.
6 This alternative would establish a benchmark for brigade-level training intensity using the
7 Army's Training Circular 25-1 (TC 25-1), *Training Land*, within PCMS in conjunction with Fort
8 Carson's current brigade-level training activities at PCMS. This alternative would enable a
9 Stryker Brigade Combat Team (SBCT) to conduct training at PCMS using its assigned
10 equipment and the Stryker family of vehicles. This alternative only considers activity within the
11 established boundaries of PCMS, with the limited exception of the transportation of equipment
12 and Soldiers to and from PCMS, which would entail some degree of off-post activity.

13 **Proposed Action Alternative 1B – Enhanced Readiness Training Using New Tactics and**
14 **Equipment at PCMS**

15 Proposed Action Alternative 1B incorporates the BCT training elements of Alternative 1A, and
16 would enable readiness training to be conducted at PCMS using the following new tactics,
17 equipment, and infrastructure improvements at PCMS: electronic jamming systems, laser
18 targeting, demolitions training using six breach sites, unmanned aerial systems training,
19 unmanned ground vehicle training, airspace reclassification, and drop zone development.

20 The Proposed Action alternatives do not include, nor would they require, any land expansion of
21 PCMS. No additional land would be sought or acquired as a result of this action. No facilities
22 construction would be required to support PCMS training operations under the Proposed Action
23 Alternatives. This alternative no longer includes aviation rocket and flare training. This is based
24 on consideration of public, agency, and tribal nation comments received on the Draft EIS (DEIS)
25 and on a re-evaluation of impacts and possible mitigation measures. In the event the Army
26 pursues aviation rocket or flare training in the future, additional National Environmental Policy
27 Act (NEPA) analysis would be required. Additionally, two proposed demolition breach sites
28 (sites 5 and 8) were removed from consideration based on comments on the DEIS and tribal
29 consultation.

30 **No Action Alternative – Continue Existing Mission and Training Operations at PCMS**

31 Under the No Action Alternative, current mission activities, training operations, range use, and
32 training land management would continue. Management would continue to conduct routine
33 maintenance and support operations. Established parameters for brigade-level training would
34 continue to be utilized. This alternative, required by NEPA regulations, encompasses baseline
35 conditions and will serve as a benchmark against which the environmental impacts of the
36 Proposed Action Alternatives can be compared. The No Action Alternative is the
37 Environmentally Preferred Alternative.

38 **5.0 EXECUTIVE ORDER CHANGES AND PUBLIC INVOLVEMENT**

39 Following the publication of the FEIS, there have been changes to several executive orders
40 referenced in the FEIS.

- 41 • Executive Orders 13423 and 13514 were revoked and replaced by Executive Order
42 13693. The new executive order covers the same areas as the revoked orders, to
43 include environmental performance and Federal sustainability, reducing energy use and
44 cost, and renewable or alternative energy solutions. Agencies must promote building

1 energy conservation, efficiency, and management by reducing agency building energy
2 intensity; and ensure that a percentage of the total amount of building electric energy
3 consumed by the agency is renewable electric energy. Agencies must also improve
4 water use efficiency and management and improve the fuel efficiency of agency vehicle
5 fleets.

- 6 • Executive Order 11988, Floodplain Management, has been amended by Executive
7 Order 13690. Among other things, there are alternate methods of calculating the location
8 of floodplains. PCMS will be mapped utilizing the new guidelines from the amended
9 Floodplain Management executive order. The proposed action in this FEIS, however, will
10 not include modifications or developments in floodplains (even under the new
11 definitions); therefore no change to the FEIS analysis is required.
- 12 • The information presented in the public comments and revised executive orders does
13 not constitute significant new circumstances or information relevant to environmental
14 concerns and bearing on the proposed action or its impacts. Therefore, supplementation
15 of the FEIS is not required. Nevertheless, all of this new information was taken into
16 account in reaching the decision.

17 The Army provided Federal and state agencies, the public, and other interested parties
18 notifications and opportunities for involvement during EIS preparation, as summarized below.
19 Also as noted below, comments received during the EIS process were taken into consideration
20 during the development of the DEIS and FEIS, and in reaching a decision.

- 21 • On March 25, 2014, the Army issued a Notice of Intent (NOI) in the Federal Register to
22 prepare an EIS. The NOI initiated the public scoping period (March 25 to May 16, 2014)
23 where members of the public (including Federal, state, and local agencies, affected
24 Federally-recognized Native American tribes, and other interested persons) were invited
25 to comment on the proposed scope and content of the EIS. The NOI was followed by
26 two public scoping meetings on May 6 (Trinidad) and May 7 (La Junta), 2014.
- 27 • During the public scoping period, comments were considered in preparation of the DEIS
28 to promote open communication and enable better decision-making. A summary of
29 comments received during the scoping period is provided in Section 1.7.3 of the FEIS.
- 30 • The Notice of Availability (NOA) for the DEIS was published in the Federal Register on
31 October 31, 2014, which began a 45-day comment period (October 31 to December 15,
32 2014).
- 33 • A notice announcing the release of the DEIS and a public meeting (held November 20,
34 2014 on PCMS) was also published in the local newspapers in the cities and counties
35 near PCMS, including the Pueblo Chieftain, the La Junta Tribune-Democrat, the Trinidad
36 Chronicle, the Rocky Ford Daily Gazette, the Gazette, the El Paso County Advertiser
37 and News, the Independent, and the Huerfano World Journal.
- 38 • During the DEIS public comment period, comments were considered in preparation of
39 the FEIS. A summary of comments received and Army responses as part of the DEIS
40 public comment period is provided in Appendix A of the FEIS.
- 41 • The NOA for the FEIS was published in the Federal Register on March 13, 2015. This
42 initiated a 30-day waiting period, subsequently extended the following week by six days
43 due to a technical difficulty experienced on the Fort Carson website that impacted the

1 public's ability to access the FEIS for two days. The six day extension was announced in
2 local newspapers. The waiting period, when concluded, allowed a decision to be
3 recorded and signed. The FEIS was made available on the Fort Carson Directorate of
4 Public Works NEPA website, <http://www.carson.army.mil/DPW/nepa.html>.

- 5 • The Army received 62 comments during the waiting period from stakeholders, to include
6 individuals and organizations. A summary of these comments is provided below. Some
7 of the comments summarized and discussed below were raised by multiple commenters,
8 but not all of the summaries identify each and every commenter by name.

9 a. Of the total number of comments received, 15 expressed concerns as a result of
10 the temporary inability for stakeholders to access the FEIS from Fort Carson's
11 website, with some requesting an extension of the review period. As noted
12 above, the Army did extend the waiting period as a result of technical website
13 difficulties, with the extension being longer than the days the site was down.

14 b. The Army received a number of comments that were the same as those already
15 expressed by commenters during the DEIS public comment period. Specifically,
16 a number of commenters continued to express opposition to the Army's
17 proposed action, belief that other alternatives recommended by commenters in
18 the DEIS comment period were dismissed without due consideration, desire for
19 closure of PCMS, and belief that past military actions have already resulted in
20 irreparable damage to PCMS lands and cultural resources. Several commenters
21 continued to indicate belief that the Army plans a land expansion, which is
22 inaccurate. No land expansion of PCMS is proposed or required for the decision
23 contained herein. The Army's responses to these previously-raised comments
24 are documented in Appendices A.2 and A.3 of the FEIS. All of these comments
25 were the same as comments raised during the DEIS public comment period, and
26 so did not raise significant new information or issues.

27 c. The Army received many comments on the FEIS that it considered new. Some
28 commenters expressed belief that substantive comments submitted on the DEIS
29 were ignored or insufficiently addressed; baseline conditions were inadequately
30 measured; regions of influence were incorrectly defined; inaccurate data or
31 erroneous data was used; the EIS analysis, to include cumulative impacts, was
32 inadequate; and environmental harm is not adequately avoided or minimized.
33 Accompanying information provided to argue in support of these opinions was
34 taken into consideration by the Army prior to making a decision. The Army
35 investigated claims of inaccurate or erroneous data. As a general matter, and in
36 full consideration of all of the information provided during the waiting period, the
37 Army determined that supplementation of the FEIS is not needed as significant
38 new information or issues relevant to environmental concerns and bearing on the
39 proposed action or its impacts were not raised. The proposed action is still
40 expected to result in significant impacts to soils, water resources, and biological
41 resources and have less than significant impacts to all other resource areas.

42 d. A few comments included citations to scientific journals, articles, or other
43 references. The Army identified a total of seven references within these citations
44 that were new, meaning that these references were not included in the public
45 comments received on the DEIS or included in the FEIS. These seven
46 references were reviewed along with the associated comments to determine
47 whether the comment and/or reference provided any new information. Some of

1 the issues raised are discussed in detail below. A letter from the group Not One
2 More Acre! (N1MA!) included the general assertion that the Army ignored or
3 refused to acknowledge peer-reviewed scientific literature and data. In fact, the
4 Army reviewed all of the citations provided by N1MA!, to include those within the
5 29-page "Attachment D" to its comment letter, identifying only five that were new
6 references. Discussed in some detail in paragraphs h and j below are three of
7 those new references, and comments associated with them, provided by N1MA!:
8 (1) Augustine, David J., Baker, Bruce W., 2013, "Associations of Grassland Bird
9 Communities with Black-Tailed Prairie Dogs in the North American Great Plains".
10 *Conservation Biology*, 27:324-334; (2) Samuel, M.J., "Growth Parameter
11 Differences between Populations of Blue Grama", 1995, *Journal of Range
12 Management*, 38:339-342; and (3) Samuel, M.J., and Hart, R.H., "Observations
13 on spread and fragmentation of Blue Grama clones in disturbed rangeland",
14 *Journal of Range Management*, 48:508-510. A fourth new reference, provided by
15 the Colorado Prairie Initiative (CPI) in their comment letter, cited Subramania,
16 Meera, 2012, "An Ill Wind", *Nature*, 486: 310-311A, and is discussed in
17 paragraph k below. A fifth new reference, provided by Mr. Doug Holdread in his
18 comment letter, was a citation to Colorado State University, 2007, *Southeastern
19 Colorado Survey of Critical Biological Resources*, (hereinafter "CSU, 2007"). In
20 his comment, Mr. Holdread asserts that the Army should have used this study as
21 a sort of baseline against which the Army could have compared existing
22 conditions at PCMS. In fact, the study relied upon by the FEIS for baseline
23 conditions (VersarGMI, 2015) compared existing vegetation conditions at PCMS
24 to conditions dating back to 1984, and is therefore a superior baseline.
25 Nevertheless, the Army reviewed CSU, 2007, as well as the 2009 Addendum to
26 that study. A sixth new citation, provided by N1MA!, referred to Williams, Byron
27 K. and Brown, Eleanor D., 2012, *Adaptive Management, The U.S. Department of
28 the Interior Application Guide*. The associated comment was merely that adaptive
29 management was "a high bar to achieve," an assertion with which the Army
30 agrees. Fort Carson understands how monitoring and statistical analysis can
31 guide future management actions and does practice adaptive management,
32 though not to the scale advocated by N1MA!. The seventh citation, also provided
33 by N1MA!, was a hyperlink to the U.S. government's "LANDFIRE" website
34 (<http://www.landfire.gov/>). This website contains landscape fire and resource
35 management tools, and is a shared program of the U.S. Department of
36 Agriculture and the U.S. Department of the Interior. The comment associated
37 with this reference expressed concern about the Army's justification for our
38 prescribed burning program regime, explained in the FEIS at page 3.7-7. After
39 review by the Army, the 7-10 year fire return interval is, in fact, consistent with
40 the information contained on the "LANDFIRE" website. All seven of the newly
41 cited scientific references (including pertinent information taken from the above-
42 referenced "LANDFIRE" website) will be added to the EIS administrative record.
43 All other references cited by the commenters were already known to the Army,
44 had already been reviewed as part of the FEIS preparation (which included
45 responses to DEIS public comments), and were already part of the administrative
46 record. The Army has considered all of the comments pertaining to the new
47 scientific references discussed above and below, as well as any comments
48 associated with references of which the Army had already been aware, has taken
49 all of them into full account in making this decision, and has determined that no
50 supplementation of the FEIS is necessary because the references and

- 1 comments did not constitute significant new information relevant to
2 environmental concerns and bearing on the proposed action or its impacts.
- 3 e. One commenter, N1MA!, appeared to believe that the “historic vegetation and
4 soil impact study” referenced on page A.3-158 of the FEIS had not previously
5 been referenced. When the DEIS was published, the study was referenced
6 multiple times, and discussed in detail in Section 4.2.4, but as a draft. The study
7 was subsequently finalized (January 2015) and supported analysis in the FEIS;
8 although the study continued to be referred to as “draft” in a couple of places,
9 reference to it should be understood as referring to the January 2015 final study
10 listed in Section 7 (References) under “Versar/GMI”.
- 11 f. Several comments received during the waiting period, to include those from Mr.
12 Paul Strasburg and from N1MA!, referred to the after action reports produced
13 after training events from 1985 to 2002. Issues raised included those focused on
14 damage to trees and cultural resources. The FEIS took these reports into
15 account in determining impact of the proposed action and the reports were a key
16 component of the analysis detailed in the historic vegetation and soil impact
17 study referenced in the FEIS under “Versar/GMI”. The after action reports
18 therefore do not constitute new information requiring supplementation of the
19 FEIS.
- 20 g. One commenter indicated that he thought the proposed action included Gray
21 Eagle training. It does not, and the Army currently has no plans for Gray Eagle
22 training at PCMS. Such a training proposal would require additional NEPA
23 analysis.
- 24 h. Several commenters, to include N1MA! and the Southern Colorado
25 Environmental Council (SCEC), commented on prairie dogs and their relation to
26 other species. The N1MA! comment directed the Army’s attention to an article
27 that indicated that prairie dog colonies are also primary habitat for mountain
28 plovers and many predators (Augustine and Baker, 2013). The Augustine and
29 Baker paper shows a high incidence of use by many rangeland bird species,
30 including high use by burrowing owls and mountain plovers. Fort Carson’s
31 Directorate of Public Works is aware that prairie dog towns are highly selected
32 habitat for these species and surveys annually for mountain plover and burrowing
33 owls. The comment said that prairie dogs should be avoided for all training.
34 SCEC noted that the FEIS says “lethal management” of prairie dogs would be
35 used and discusses the effects on the eco-system of removal of prairie dogs. It is
36 important to note that the Army does not intend to eradicate all prairie dogs at
37 PCMS. Section 3.7.1.4.3 of the EIS discusses the effects of prairie dog control on
38 other species, including limited use of poison grain for “lethal control” and
39 conducting protected species pretreatment survey at sites identified for “lethal
40 control” of prairie dogs. This information was taken into account in this decision.
41 Complete avoidance of prairie dogs in training areas is not possible, and
42 sometimes they must be removed for safety and health reasons. The FEIS
43 discussion on page A.3-45 provides an example.
- 44 i. N1MA! wrote “PCMS, along with neighboring Comanche National Grasslands,
45 contains the largest assemblage of dinosaur tracks in North America” and
46 appeared to be arguing that the analysis of impacts to these archaeological
47 resources was insufficiently addressed in the FEIS. While the area in question

1 was part of PCMS when the land was acquired by the Army, a land transfer of
2 approximately 16,000 acres took place in 1991, and the area with the referenced
3 dinosaur tracks became U.S. Forest Service lands. As noted in the FEIS,
4 potential impacts from the proposed action to the dinosaur tracks is primarily
5 believed by the Army to be related to the tourism component of this
6 paleontological resource. In response to comments received on the DEIS
7 regarding noise impacts to the area with the dinosaur tracks, discussion is on
8 pages A.2-12 and -13 in the FEIS. Considering all input received, the Army finds
9 that additional analysis in supplement of the FEIS is not warranted.

10 j. N1MA! provided extensive comments regarding soil and vegetation impacts,
11 most of which attempted to refute the Army's responses to the same comments
12 previously provided during the DEIS comment period. N1MA! raised issues of the
13 adequacy of the FEIS' discussion of seedling establishment, justification of the
14 Army's seed mix and its constituents, soil carbon loss, proposed mitigation
15 measures, and other issues. After a review of these comments, the Army has
16 determined that they raise no new issues. N1MA! also provided two new
17 scientific references, both pertaining to vegetation recovery of blue grama, the
18 dominant native species of a shortgrass steppe (Samuel, 1985; and, Samuel and
19 Hart, 1995). Both of these studies conclude that while blue grama dominates
20 most of the shortgrass and mixed-grass rangelands of the Great Plains, it may
21 take decades to re-establish dominance following severe disturbance. The Army
22 does not refute these findings, and has reviewed and found nothing new in them
23 that would cause the Army to supplement the FEIS. N1MA! also provided a
24 newspaper article pertaining to the drought conditions in the region (Rice, Doye,
25 "Does the Dustbowl stack up to today's disasters?", *USA Today*, January 28,
26 2013). Section 3.5.1.2.2 of the FEIS specifically acknowledges the greater
27 impacts of drought conditions on vegetation cover. The Army has considered all
28 of N1MA!'s comments regarding soil and vegetation impacts, taken them all into
29 account in making this decision, and has decided that supplementation of the
30 FEIS is not required.

31 k. Colorado Prairie Initiative (CPI) submitted a comment that questioned the
32 sufficiency of the analysis of impacts to birds of prey. Although Section 3.7.1.2.2
33 of the FEIS notes that 259 bird species occur or potentially occur in Las Animas
34 County, where PCMS is located, CPI was concerned because the 14 species
35 listed by name in that section did not include any birds of prey. Additionally, CPI
36 argued that that cumulative impacts analysis for golden eagles is insufficient as
37 wind farm impacts were not included. The CPI comment directed the Army's
38 attention to an article that indicated wind farm turbines threaten some bird and
39 bat populations (Subramania, 2012). The closest wind farm, owned by Black Hills
40 Colorado Electric, is approximately 25 miles from the border of PCMS. This
41 information, along with impacts to birds analyzed in the FEIS, was taken into
42 account prior to my making a decision. With respect to the analysis contained in
43 the FEIS, the Army concluded that impacts from the proposed action were not
44 overly disproportionate among avian species; therefore, analysis did not separate
45 impacts to birds of prey from impacts to birds in general. In light of requirements,
46 such as the Bald and Golden Eagle Protection Act, PCMS already mitigates
47 impacts, as discussed in Section 3.7.3 of the FEIS, by seasonal restrictions
48 placed around active golden eagle nests. As noted in Table 3 below, this
49 mitigation practice will continue. As such, the Army concludes that further

1 analysis on potential impacts to golden eagles or other birds of prey is not
2 warranted.

3 I. Several commenters raised questions generally pertaining to the sufficiency of
4 the air pollution analysis of the FEIS. N1MA!'s comments included the assertion
5 that the Army failed to consider air impacts occurring outside of the boundaries of
6 PCMS, such as traffic to and from PCMS, air emissions associated with that
7 traffic, and health impacts from offsite dust. In fact, Section 3.3.1.2, Table 3.3-2,
8 and Table 3.3-3 of the FEIS contain information about air impacts due to
9 activities and effects that occur off of the installation, including traffic (from
10 convoys between Fort Carson and PCMS) and fugitive dust emissions. N1MA!'s
11 comments also included the concern that the increase of greenhouse gas (GHG)
12 emissions from the proposed action would exceed the "presumptive effect"
13 threshold of 25,000 metric tons per year proposed by the Council on
14 Environmental Quality (CEQ) in their original draft, and December 2014 revised
15 draft "*Guidance for Federal Departments and Agencies on Consideration of*
16 *Greenhouse Gas Emissions and the Effects of Climate Change in NEPA*
17 *Reviews*". N1MA! estimated the annual emissions from the proposed action at
18 936,414.17 tons per year. The Army's reading of this draft guidance is that the
19 cited presumptive effect threshold generally applies to new *stationary* sources of
20 GHG emissions. (The proposed action would involve increased use of existing
21 mobile sources.) This reading is consistent with existing regulations and
22 guidance. For example, many Army tactical vehicles are specifically exempted
23 from Clean Air Act nitrous oxide per horsepower limits (see, e.g., 40 CFR 89.908,
24 providing a national security exemption for military combat vehicles).
25 Furthermore, the recently released Executive Order 13693, which concerns GHG
26 emission reductions, states that GHG emission reduction targets should not
27 include direct emissions from certain "excluded vehicles and equipment" such as
28 those used in combat or combat support, or training for such operations. In any
29 case, as noted in Table 3.3-5 of the FEIS, the proposed action adds only a
30 fraction to existing GHG emissions from existing Army operations at Fort Carson
31 and PCMS. As stated in Section 3.3.2.2 of the FEIS, the Army is pursuing nation-
32 wide efforts to reduce its overall GHG emissions, a reduction anticipated to be far
33 in excess of any GHG emissions due to the proposed action. CPI's comments
34 included the contention that the Army utilized the wrong standard for sulfur
35 dioxide (SO₂): specifically, that the FEIS erroneously listed an 8-hour standard of
36 75 parts per billion (ppb). In fact, Table 3.3-1 of the FEIS makes clear that the 75
37 ppb standard is a 1-hour maximum standard for SO₂, which matches the 1-hour
38 national primary ambient air quality standard for oxides of sulfur set forth in the
39 federal regulations (40 CFR 50.17(a)). The Army has considered all of the
40 comments pertaining to air impacts discussed above, has taken them into full
41 account in making its decision, and has determined that no supplementation of
42 the FEIS is necessary.

43 m. The letter from the SCEC included the comment that environmentally sensitive
44 areas are not always recognized as such by units during training, and that these
45 areas are thus subjected to a "major adverse impact". As noted in Sections
46 2.5.2.3, 4.2.4, and several other sections within the FEIS, a key component to
47 Fort Carson's maneuver damage control program (as well as avoidance of other
48 resources on PCMS, such as cultural resources and the natural gas pipeline) is

1 Soldier education. Still, the Army acknowledges this comment, and has
2 considered it in making this decision.

- 3 n. CPI had several concerns regarding vegetation in their comment letter. CPI's
4 comment contained the assertion that the FEIS mistakenly identified the prickly
5 pear cactus as a shrub, when in fact it is a succulent. In fact, the U.S.
6 Department of the Interior, Bureau of Land Management, Automatic Data
7 Processing (ADP) Codes for Vegetation, Types and Sub-Types (Form 4412-30 a
8 (July 1979)) categorizes cactus as a "shrub" (See: Rangeland Inventory and
9 Monitoring: Supplemental Studies, TR 4400-5, 1992, page 164). CPI also
10 asserted that the Species at Risk (SAR) grasses contained in the FEIS on page
11 3.7-6 are not mentioned in any survey data. In fact, the SARs listed, which are
12 not grasses, are part of a survey completed by the Colorado Natural Heritage
13 Program and Colorado State University (Neid, Stephanie, Karin Decker, Jill
14 Handwerk, and Susan Spackman Panjabi, 2007, *Rare Plant Surveys on the*
15 *Piñon Canyon Maneuver Site 2006-2007*, available online at
16 http://www.cnhp.colostate.edu/download/documents/2007/PCMS_FINAL_12210_7.pdf). In the course of investigating this comment, the Army discovered an error
17 in the FEIS. One of the plant species listed, the Arkansas feverfew, should not
18 have been included as this species, though present in Las Animas County, is not
19 known to occur on PCMS. Additionally, two other plant species on PCMS should
20 have been included as a SAR: the Arkansas Valley evening primrose
21 (*Oenothera harringtonii*) and Rayless goldenweed (*Oenopsis foliosa*; also known
22 as *Haplopappus fremontii*). The Arkansas Valley evening primrose inhabits flat to
23 gentle slopes of the shale and limestone formation and occurs at elevations
24 between approximately 4,600 to 6,100 feet above mean sea level (MSL). It is
25 associated with shortgrass and saltbush communities. This species is currently
26 known from over 60 occurrences in six Colorado counties. The Rayless
27 goldenweed inhabits eroded or disturbed barren shale and clay slopes. It occurs
28 at elevations between approximately 4,000 to 6,000 feet above MSL and is
29 associated with the shortgrass prairie matrix. This species is currently known
30 from approximately 20 occurrences in Las Animas County. Further details
31 regarding these species is available from a current FEIS reference, NatureServe
32 Explorer, 2013, and the above mentioned reference, Neid, et.al., 2007.
33 Additionally, the Neid, et.al., 2007 reference is the proper reference for rare plant
34 surveys on PCMS whereas the Neid and Handwerk, 2007 reference in the FEIS
35 is for the rare plant surveys on Fort Carson. Management of these species is part
36 of the natural resources management program at PCMS, along with the Dwarf
37 milkweed and Roundleaf four o'clock, two other SAR plants discussed in the
38 FEIS which occur on PCMS. The Army appreciates CPI's assistance in helping
39 identify this error. The Army has considered these two additional SARs and has
40 decided that supplementation of the FEIS is not required because the proposed
41 action will not result in impacts to these particular species in a way distinct from
42 the analysis of vegetation impacts to species that were properly included in the
43 FEIS; additionally, the Army does not manage these SARs in a manner that is
44 different from the plant species analyzed in the FEIS. The Army considered the
45 corrected list of plant species when making this decision, and will include CPI's
46 comment and any documentation related to the Army's response in the
47 administrative record.
48

- 1 o. N1MA! provided a comment suggesting that the proposed action analyzed in the
2 FEIS “appears connected” to several other training-related projects “at, around,
3 or otherwise affiliated” with Fort Carson and/or PCMS, including the
4 establishment of landing zones on USFS and Bureau of Land Management land,
5 and improvements and operations involving Bullseye Auxiliary Airfield and other
6 county and municipal airports. In fact, the Army had already responded to a very
7 similar comment made by another commenter on the DEIS (see page A.3-28 of
8 the FEIS). In short, these actions are not connected to the proposed action, and
9 given the distance between the proposed High Altitude Mountain Environment
10 Training (HAMET), the USAF’s Bullseye Auxiliary Airport, and PCMS, it is very
11 unlikely these separate actions will have any combined impacts. N1MA! also
12 mentioned the transportation of personnel and equipment to and from PCMS,
13 which is analyzed within the FEIS to the extent it is related to the proposed action
14 and/or ongoing operations.
- 15 p. A commenter, Rock the Earth, submitted comments that were received after the
16 expiration of the waiting period, but prior to the signature of this ROD. The Army
17 reviewed the comments of Rock the Earth and identified one comment that
18 presented potentially new information. Rock the Earth’s comments contain the
19 assertion that the FEIS failed to include certain areas bordering PCMS as
20 potential minority communities for purposes of environmental justice analysis.
21 Rock the Earth pointed to maps developed by the Federal Highway
22 Administration and Colorado Department of Transportation (CDOT) which listed
23 certain areas bordering PCMS as areas with high-percentage minority
24 populations. This organization had raised a similar concern during the DEIS
25 public comment period, and the Army responded by pointing out that because
26 most of the impacts from the proposed action would occur on PCMS or
27 immediately adjacent to the installation, it made sense for the Army to utilize
28 county data rather than state (see FEIS, page A.3-93). In their new comment,
29 Rock the Earth maintained that “broader areas should have been evaluated and
30 compared to state statistics, not nearby census tract data” and that the Army
31 wrongly “assumes impacts will stop at the fenceline”. CEQ environmental justice
32 guidance states that “In order to determine whether a proposed action is likely to
33 have disproportionately high and adverse human health or environmental effects
34 on low-income populations, minority populations, or Indian tribes, agencies
35 should identify a geographic scale for which they will obtain demographic
36 information on the potential impact area” (CEQ, 1997). As stated in its response
37 to Rock the Earth’s similar DEIS comment, the Army does not assume impacts
38 would “stop” at the PCMS border, only that most of the anticipated impacts (such
39 as noise and fugitive dust, for example) would occur on and immediately
40 adjacent to the installation. Because impacts from the proposed action are
41 concentrated on PCMS and immediately adjacent to the installation rather than
42 disbursed throughout the entire state, the Army maintains that it was reasonable
43 to utilize county data for comparison to the affected census tract, which
44 represents as closely as possible the smallest geographic units for which Census
45 data was available. The commenter provided a web link to a report by CDOT’s
46 Research Branch (<https://www.codot.gov/programs/research/pdfs/2002/env-justice.pdf>;
47 Van Orden, Debora and Grauberger, Cally, 2002, *Environmental
48 Justice Research Study*, Report Number CDOT-DTD-R-2002-7). Rock the Earth
49 points to maps contained within this report which show minority populations in
50 Otero County, near the northern PCMS border. The CDOT study indicates that

1 minority population percentages (i.e., total population minus white, non-
2 Hispanics; calculated the same as in the FEIS) was between 18 and 24 percent
3 for Census Tract 9881 as of the 2000 Census. The FEIS identifies minority
4 populations in this same tract (renamed to Census Tract 9684 as of the 2010
5 Census) as being higher than 2000 numbers at 45.8 percent, based on the 2008
6 – 2012 American Community Survey (i.e., the most up to date census numbers
7 at the time of the analysis). Although these numbers represent a higher number
8 of minority populations, the census tract composition is lower than that of the
9 county comparison and does not exceed the conservative meaningfully greater
10 criterion for a minority population area (i.e., 120 percent of the county
11 population). Regardless of the selection of units of analysis and as highlighted in
12 the Army's response to Rock the Earth's DEIS comments, the CEQ's
13 environmental justice guidance requires that the analysis focus on
14 disproportionate adverse economic, social, or health impacts on minority or low-
15 income populations, and substantial disproportionate health or safety risk to
16 children. The FEIS concluded that impacts from the proposed action on any one
17 specific off-post area would not appreciably exceed those on the general
18 population, as these impacts would be distributed throughout the entire area
19 bordering PCMS, and not borne more or less by a specific population.
20 Importantly, as noted in the Army's response to this organization's similar DEIS
21 comment, many impacts to areas outside of PCMS boundaries would be limited
22 or negligible. Still, the Army has considered all of Rock the Earth's new
23 comments, including the above-referenced CDOT report. The Army maintains
24 that the conclusion of the FEIS is reasonable, and has determined that the
25 comments provided by Rock the Earth do not require supplementation of the
26 FEIS. The Army has taken these comments into account when making this
27 decision, and will include them in the administrative record.

28 q. In summary, the Army has carefully reviewed the 62 comments received during
29 the waiting period, as well as the above comment received after the expiration of
30 the waiting period. All of the comments (including all of the new references and
31 other information provided by the commenters) have been considered when
32 making this decision, and will be included in the administrative record. The Army
33 has determined that these comments provide no new information that would
34 require supplementation of the FEIS. The Army sincerely appreciates the
35 participation of the public in this process.

- 36 • The NOA of this ROD will be published in the Federal Register. This ROD will be made
37 available on the Fort Carson Directorate of Public Works NEPA website,
38 <http://www.carson.army.mil/DPW/nepa.html>. A notice will be published in local
39 newspapers.

40 **6.0 DECISION FOR THE TRAINING AND OPERATIONS AT PIÑON CANYON** 41 **MANEUVER SITE**

42 In the FEIS, the Army identified Alternative 1B as the preferred alternative. This alternative
43 incorporates the BCT training elements of Alternative 1A, and enables readiness training to be
44 conducted at PCMS using new tactics, equipment, and infrastructure improvements at PCMS.

45 I have considered the results of the analysis in the FEIS, public comments, and the Army
46 mission requirements. Based on this review, I have decided to proceed with Alternative 1B. The

1 brigade-level training and enhanced readiness equipment and training presented within
2 Alternative 1B addresses the Army's need to conduct realistic and coordinated large-scale
3 training that integrates the ground and air resources of assigned and visiting units, including
4 mechanized, infantry, support, and combat aviation assets.

5 I took into account the fact that the Army must cut its end strength and that one or more BCTs at
6 Fort Carson could be eliminated. Even if one or more Fort Carson BCTs were to be selected for
7 inactivation, the Proposed Action would still be needed. BCT-level training cannot always be
8 conducted at Fort Carson, and combat training centers are national assets that cannot be
9 dedicated to accommodate the annual home-station training needs of a Fort Carson BCT.

10 **7.0 ENVIRONMENTAL CONSEQUENCES**

11 Potential direct, indirect, and cumulative impacts of the No Action and the Proposed Action
12 Alternatives were identified in the analysis and public comment process during the development
13 of the FEIS. The FEIS analyzed the effects of the No Action and the Proposed Action
14 Alternatives on the following valued environmental components (VECs): land use and
15 aesthetics; air quality and greenhouse gases; noise; geology and soils; water resources;
16 biological resources; cultural resources; socioeconomics; traffic and transportation; airspace;
17 facilities and utilities; and hazardous materials, hazardous waste, and toxic substances. There
18 are no disproportionate impacts implicating principles of environmental justice. The FEIS also
19 identified mitigation measures to address the potentially adverse impacts that would result from
20 the implementation of the Proposed Action Alternatives.

21 Baseline conditions and effects to the areas within and surrounding PCMS were described and
22 considered, as appropriate, based on the Region of Influence (ROI) for each VEC as discussed
23 in Section 3.1 of the FEIS. The potential effects have been fully evaluated in the FEIS. The
24 Army recognizes that the implementation of Proposed Action Alternative 1B is expected to result
25 in direct, indirect, and cumulative impacts to PCMS and the surrounding areas. Particularly,
26 BCT training will result in significant impacts to soils, water resources, and biological resources.
27 Table 1 provides a summary overview of the environmental impacts within the FEIS, including
28 those from Alternative 1B that are anticipated from this decision to implement enhanced brigade
29 and readiness training at PCMS.

30

31

Table 1. Anticipated Direct and Indirect Impacts to VECs from Training and Operations at PCMS compared to the No Action Alternative

VEC	Impact		
	No Action	Alternative 1A	Alternative 1B
Land use and aesthetics	Minor	Moderate	Moderate
Air quality and greenhouse gases	Minor	Minor	Minor
Noise	Negligible	Negligible	Moderate
Geology and soils	Significant	Significant	Significant
Water resources	Minor	Significant	Significant
Biological resources	Moderate	Significant	Significant
Cultural resources	Minor	Minor	Minor
Socioeconomics	Negligible	Negligible	Negligible
Traffic and transportation	Minor	Minor	Minor
Airspace	Minor	Negligible	Moderate
Facilities and utilities	Minor	Minor	Minor
Hazardous materials, hazardous waste, and toxic substances	Minor	Minor	Minor

- 1 Cumulatively, potential environmental impacts associated with training and operations at PCMS,
- 2 when considered with other past, present, and foreseeable future actions, would result in less
- 3 than significant impacts to VECs. A summary of cumulative impacts is provided in Table 2.
- 4

Table 2. Anticipated Cumulative Impacts to VECs from Training and Operations at PCMS

VEC	Impact
Land use and aesthetics	Minor
Air quality and greenhouse gases	Minor
Noise	Moderate
Geology and soils	Moderate
Water resources	Moderate
Biological resources	Moderate
Cultural resources	Minor
Socioeconomics	Negligible
Traffic and transportation	Minor
Airspace	Minor
Facilities and utilities	Minor
Hazardous materials, hazardous waste, and toxic substances	Minor

- 5 Detailed discussion of the environmental impacts can be found in the FEIS.

6 **8.0 MITIGATION COMMITMENTS**

- 7 First and foremost, the Army has decided to continue to limit mechanized maneuver training at
- 8 PCMS to the historical and previously analyzed levels of maneuver intensity, to include the

1 temporal limit of 4.7 months. All practicable means to avoid or minimize environmental harm
2 from the selected alternative have been adopted except as discussed below.

3 The Army is committed to sustaining and preserving the environment at PCMS. The installation
4 has active environmental management programs that employ a full array of best management
5 practices (BMPs) and ensure the environmental compliance, stewardship, and sustainability of
6 the areas that are potentially impacted by training. As part of the decision to proceed with the
7 preferred alternative, the Army will continue to implement all existing mitigation measures,
8 BMPs, and environmental management programs to minimize the impacts of this decision. The
9 Antideficiency Act (31 United States Code §1341) prevents federal agencies, including the
10 Army, from incurring obligations that are not yet funded by Congress. While the Army's intent is
11 to fully fund mitigation measures identified in this ROD (with one exception discussed below),
12 we are limited by future Congressionally-approved budgets. The Army's NEPA regulation
13 contains a robust set of requirements aimed at ensuring that mitigation measures are funded
14 and monitored for efficacy (see, e.g., 32 CFR 651.15). In the event mitigations fail for whatever
15 reason – including lack of funding – the Army may need to conduct additional analysis, as
16 appropriate. Table 3 presents mitigation measures the Army will adopt for implementation of
17 Alternative 1B. A monitoring and enforcement plan will be adopted for these mitigation
18 measures.

19 One mitigation measure proposed in the FEIS will not be formally adopted or decided upon at
20 this time, and is therefore not included in Table 3 below. This proposed mitigation measure was
21 described in the FEIS (Table 5-2, page 5-13) as follows: “[c]ollection of vibration and noise data
22 over an unspecified period of time ... to establish an environmental baseline and during times
23 when explosives are used at the demolition breach site.” This proposed mitigation will not be
24 implemented at this time because the Army has already taken measures to avoid environmental
25 harm, in two ways, as explained in Section 2.2.3.4 of the FEIS. First, the Army will avoid
26 potential harm to rock art sites by removing proposed demolition training sites 5 and 8, which
27 had been proposed and analyzed in the DEIS. Second, the Army will minimize potential harm to
28 rock art by limiting the maximum charge at Site 7 to five pounds per blast. The Army has
29 decided that these avoidance and minimization measures, when combined with the monitoring
30 described in Table 3 below, constitute sufficient mitigation for the proposed demolition training
31 analyzed in the FEIS, and that no further mitigation measures are required to avoid or eliminate
32 adverse impacts to rock art. The Colorado State Historic Preservation Officer (SHPO) agreed
33 that the proposed undertaking would have no adverse effects. The Army has also concluded
34 that the proposed collection of vibration and noise data is not practical at this time, for lack of
35 technical feasibility. Proper scientific means for collecting vibration and noise data at the
36 demolition sites on PCMS has yet to be established. Challenges include, for example, the
37 collection of reliable data in an uncontrolled environment such as the outdoors, differentiating
38 between vibration from military demolition activities versus natural forces, and precision
39 measurements of rock art before and after demolition activities. Traditional means of monitoring
40 impacts to cultural resources, including site visits and archaeological documentation, will
41 continue while the Army researches what would be required to support a technically sound
42 study on PCMS, of limited duration, that would add to the scientific literature on vibration and
43 noise impacts to the types of cultural resources in the vicinity of the demolition sites. The Army
44 remains interested in research to understand more fully potential vibration and noise impacts to
45 historic properties and to continue our protection of these unique resources.

Table 3. PCMS Training and Operations Adopted Mitigation Measures

Training Activity	Existing Operational Controls	Adopted Additional Mitigation Measures and BMPs
Land Use		
All	<ul style="list-style-type: none"> Application of existing land management programs, including training land rotations, limited-use areas, dismounted-only areas, off-limit areas, and Land Rehabilitation and Maintenance (LRAM) land rehabilitation efforts, are employed to offset the impact of training in order to maintain quality training lands for sustained military use. 	<ul style="list-style-type: none"> Existing mitigation measures and programs will be scaled to respond to observed and measured conditions.
Air Quality and Greenhouse Gases		
All	<ul style="list-style-type: none"> Compliance with existing regulations, permit requirements, and plans is required for activities associated with training. Adherence to Installation management plans, particularly the fugitive dust control plan, would guide activities for current training and operations. 	<ul style="list-style-type: none"> No additional mitigation measures are identified.
Noise		
All	<ul style="list-style-type: none"> Compliance with applicable Federal, state, and local noise control regulations is required to avoid noise that exceeds acceptable sound levels. Adherence to the Installation Operational Noise Management Plan (IONMP) and Fort Carson Regulation (FC Reg) 95-1, <i>Local Flying Rules and Procedures</i>, would guide activities for current training and operations. Fort Carson is committed to maintaining a “Fly Neighborly” relationship with the community and continues to maintain a noise complaint hotline ((719) 526-9849 [during business hours] and (719) 526-3400 [after business hours]). 	<ul style="list-style-type: none"> No additional mitigation measures are identified.

Table 3. PCMS Training and Operations Adopted Mitigation Measures

Training Activity	Existing Operational Controls	Adopted Additional Mitigation Measures and BMPs
Geology and Soils		
ABCT and SBCT Training	<ul style="list-style-type: none"> Application of existing land management programs, including training land rotations, limited-use areas, dismantled-only areas, off-limit areas, and LRAM land rehabilitation efforts, are employed to offset the impact of training to soils in order to maintain quality training lands for sustained military use. 	<ul style="list-style-type: none"> Training activities could be restricted or reduced by the Commander as necessary when the soils are saturated (e.g., after a rain or snow event) following existing color code protocols to minimize impacts from vehicles. Existing mitigation measures and programs will be scaled to respond to observed and measured conditions.
All	<ul style="list-style-type: none"> Training activities requiring the use of vehicles maximize use of existing trail networks to the greatest extent practicable for preventing damage to soils and trail proliferation. 	<ul style="list-style-type: none"> No additional mitigation measures are identified.
Water Resources		
ABCT and SBCT Training	<ul style="list-style-type: none"> Application of existing land management programs, including training land rotations, limited-use areas, dismantled-only areas, off-limit areas, and LRAM land rehabilitation efforts including increasing and maintaining the network of 455 erosion control structures, are employed to offset the impact of training to water quality by reducing the potential for sedimentation into surface waters. 	<ul style="list-style-type: none"> Existing mitigation measures and programs will be scaled to respond to observed and measured conditions. Training activities could be restricted or reduced by the Commander as necessary when the soils are saturated (e.g., after a rain or snow event) following existing color code protocols to minimize impacts from vehicles. Additional measures will include the establishment of stormwater devices in strategic locations and/or bank stabilization projects identified by the Integrated Training Area Management (ITAM) personnel based off of land management programs to control sedimentation.
All	<ul style="list-style-type: none"> Training is done in compliance with Federal and state regulations, Army and Fort Carson regulations, command policy, standard operating procedures, and multiple conservation programs and plans. 	<ul style="list-style-type: none"> Water quality data will continue to be collected as described in the INRMP, when there are flows. If an analysis of the water quality data shows degradation, BMPs will be scaled in response or additional BMPs implemented to address the specific parameter. This will include the addition of

Table 3. PCMS Training and Operations Adopted Mitigation Measures

Training Activity	Existing Operational Controls	Adopted Additional Mitigation Measures and BMPs
	<ul style="list-style-type: none"> • Training activities requiring the use of vehicles maximize use of existing trail networks to the greatest extent practicable, including designated stream channel crossings, to reduce potential sedimentation. • Water quality and sediment monitoring, as well as maintenance of the erosion control network, occurs at PCMS. • Training areas and ranges are reviewed as part of the Operational Range Assessment Program (ORAP). The purpose is to assess whether further investigation is needed to determine if potential munitions constituents of concern (MCOCC) are or could be migrating off-range at levels that may pose an unacceptable risk to human health or the environment. An initial ORAP Phase 1 assessment was performed in 2008 with a review in 2014. The current report conclusion is that migration pathways off-range are unlikely. 	<p>monitoring stations within the downstream areas and/or additional erosion control structures to slow stormwater runoff and impede sediment migration.</p> <ul style="list-style-type: none"> • Development of additional stream channel crossings will occur, as necessary, based on training needs.
Biological Resources		
<p>ABCT and SBCT Training</p>	<ul style="list-style-type: none"> • Biological resources are managed through the Fort Carson and PCMS Integrated Natural Resources Management Plan (INRMP). The INRMP establishes an environmental strategy and various program elements and management plans for the protection and management of biological resources. • Application of existing land management programs, including training land rotations, limited-use areas, dismounted-only areas, off-limit areas, and LRAM land rehabilitation efforts, are employed to offset the impact of training to biological resources in order to maintain quality training lands for sustained military use. 	<ul style="list-style-type: none"> • Training activities could be restricted or reduced by the Commander as necessary when the soils are saturated (e.g., after a rain or snow event) following existing color code protocols to minimize impacts from vehicles. • Existing mitigation measures and programs will be scaled in response to observed and measured conditions.

Table 3. PCMS Training and Operations Adopted Mitigation Measures

Training Activity	Existing Operational Controls	Adopted Additional Mitigation Measures and BMPs
All	<ul style="list-style-type: none"> • Biological resources are managed through the Fort Carson and PCMS INRMP. The INRMP establishes an environmental strategy and various program elements and management plans for the protection and management of biological resources. • Training activities requiring the use of vehicles maximize use of existing trail networks to the greatest extent practicable to reduce impacts to vegetation and prevention of trail proliferation. • Areas identified for land rehabilitation following training are reseeded using an approved, site-specific native seed mix to reduce the potential establishment of invasive plant species. • Fort Carson monitors known species at risk (SAR) populations and conducts surveys. FC Reg 350-4, <i>Piñon Canyon Maneuver Site</i>, further reinforces environmental protection by establishing training guidelines for cross-country maneuver to include avoidance of environmentally sensitive areas. • The burrowing owl is surveyed and monitored in accordance with the INRMP (as staffing limitations allow and is feasible). This includes conducting a 3-day survey by Fort Carson wildlife personnel prior to any site development activity. Soldiers are discouraged from bivouacking in prairie dog colony areas which aids in preventing disturbance to potential burrowing owl habitat. • In accordance with the Bald and Golden Eagle Protection Act, the Army continues to maintain buffers with a radius measuring 800-meters from surface up to 2,500 feet above ground level (current USFWS and CPW guidelines for nest buffer distances) around any identified eagle nest until the young have fledged. These buffers exclude all vehicles, 	<ul style="list-style-type: none"> • No additional mitigation measures are identified.

Table 3. PCMS Training and Operations Adopted Mitigation Measures

Training Activity	Existing Operational Controls	Adopted Additional Mitigation Measures and BMPs
	aircraft operations, and foot traffic.	
Cultural Resources		
All	<ul style="list-style-type: none"> • In 2014, Fort Carson conducted extensive consultation with the SHPO, tribal nations, and other consulting parties to establish a comprehensive Programmatic Agreement (PA) for compliance with Section 106 of the National Historic Preservation Act at PCMS. • In accordance with the PCMS PA, all eligible sites and sites with unknown eligibility are avoided during set up for proposed training activities and during the training activities themselves. Sites are monitored to make sure they remain intact, undisturbed, and not damaged during training exercises. • Native American sacred sites and properties of traditional and religious cultural importance are managed and protected in accordance with the PCMS PA. • Native American sacred sites and properties of traditional and religious cultural importance on PCMS are avoided during set up for training activities and during the training activities themselves. 	<ul style="list-style-type: none"> • Proposed demolition breach training sites when used will have select cultural sites within their Areas of Potential Effects (APE) monitored after a training event until and unless alternative arrangements are included in a future amendment to the PA. • Site 7 will have a maximum charge of five pounds per blast.
Socioeconomics		
All	<ul style="list-style-type: none"> • The Southern Colorado Working Group meets quarterly with local representatives and enhances awareness of business opportunities at PCMS. • The Procurement Technical Assistance Center provides specific advice of current business opportunities. 	<ul style="list-style-type: none"> • No additional mitigation measures are identified.

Table 3. PCMS Training and Operations Adopted Mitigation Measures

Training Activity	Existing Operational Controls	Adopted Additional Mitigation Measures and BMPs
Traffic and Transportation		
All	<ul style="list-style-type: none"> Fort Carson obtains Colorado Department of Transportation (CDOT) permits and follows mitigated convoy procedures while convoying between Fort Carson and PCMS. 	<ul style="list-style-type: none"> No additional mitigation measures are identified.
Airspace		
All	<ul style="list-style-type: none"> FC Reg 95-1 establishes policies and procedures for the operations of military aircraft. AR 385-63 and FC Reg 385-63, <i>Range Safety</i>, establish procedures for live fire ranges, training utilization, and medical evacuation (MEDEVAC) protocol. 	<ul style="list-style-type: none"> AR 385-63 and FC Reg 385-63 establish procedures for laser training, demolitions, and drop zone utilization.
Electronic Jamming Systems	<ul style="list-style-type: none"> Not applicable, this activity is not currently conducted at PCMS. 	<ul style="list-style-type: none"> Jamming will be restricted to authorized Department of Defense (DoD) frequencies.
Laser Training	<ul style="list-style-type: none"> Not applicable, this activity is not currently conducted at PCMS. 	<ul style="list-style-type: none"> AR 385-63 and FC Reg 385-63 establish procedures and safety requirements for laser training.
Demolitions	<ul style="list-style-type: none"> Not applicable, this activity is not currently conducted at PCMS. 	<ul style="list-style-type: none"> This proposal has been mitigated by design through the careful selection of demolition sites and appropriate maximum charge limitations.
Cumulative	<ul style="list-style-type: none"> Range Operations provide oversight and scheduling deconfliction. 	<ul style="list-style-type: none"> No additional mitigation measures are identified.

Table 3. PCMS Training and Operations Adopted Mitigation Measures

Training Activity	Existing Operational Controls	Adopted Additional Mitigation Measures and BMPs
Facilities and Utilities		
All	<ul style="list-style-type: none"> • Fort Carson adheres to FC Reg 350-4, which addresses solid waste. • In addition, Fort Carson adheres to FC Reg 350-4, FC Reg 350-10, <i>Maneuver Damage Control Program</i>, and the PCMS Stormwater Management Plan address minimizing impacts to non-construction related stormwater activities either directly or indirectly during training events. • The Colorado Interstate Gas (CIG) pipeline area is a no-dig area and is off-limits to bivouac. • Pipeline crossing is authorized perpendicularly. Additional protection measures for the pipeline include periodic monitoring and maintenance of the pipeline's protective cover of soil, signage, mapping, and on the ground education. 	<ul style="list-style-type: none"> • Explosive charges will not take place within 2,300 feet from the pipeline. • Explosive charges will be surface blast and not entrenched or buried. • Explosive charges will not exceed 25 pounds of C4 per detonation, with the exception of Site 7, where blasting will not exceed 5 pounds per blast.
Hazardous and Toxic Substances		
All	<ul style="list-style-type: none"> • Fort Carson adheres to FC Reg 350-4 which addresses spill prevention. • Soldiers training at PCMS adhere to the Fort Carson hazardous waste management plan. 	<ul style="list-style-type: none"> • No additional mitigation measures identified.

APE=Areas of Potential Effects; AR=Army Regulation; BMP=best management practice; CDOT=Colorado Department of Transportation; CIG=Colorado Interstate Gas; CPW=Colorado Parks and Wildlife; DoD=Department of Defense; FC Reg=Fort Carson Regulation; INRMP=Integrated Natural Resources Management Plan; IONMP=Installation Operational Noise Management Plan; ITAM=Integrated Training Area Management; LRAM=Land Rehabilitation and Maintenance; MCOC= munitions constituents of concern; MEDEVAC=Medical Evacuation; ORAP= Operational Range Assessment Program; PA=Programmatic Agreement; PCMS=Piñon Canyon Maneuver Site; SAR=Species at Risk; SHPO=State Historic Preservation Officer; USFWS=U.S. Fish and Wildlife Service

1 **9.0 DECISION**

2 I have considered the results of the analysis in the FEIS, comments provided during public
3 comment and review periods, and the Army mission requirements. Based on this review, I have
4 determined that implementation of Alternative 1B and mitigations discussed above best meet
5 the purpose and need for the Proposed Action while providing the proper measures for
6 protecting the environment and mission needs. This alternative includes Alternative 1A, which
7 establishes and implements new brigade-level training intensity measures, updates brigade
8 training period equipment compositions and training methods relative to the 1980 EIS, and
9 enables the Stryker family of vehicles to train at PCMS. This alternative also allows for training
10 using the following new tactics, equipment, and infrastructure improvements at PCMS:
11 electronic jamming systems, laser targeting, demolitions training using six breach sites,
12 unmanned aerial systems training, unmanned ground vehicle training, airspace reclassification,
13 and drop zone development.

14 In making this decision, I am aware of the potential environmental effects of the potential
15 alternatives summarized in Table 1, and those associated with the implementation of the
16 Alternative 1B. I am aware that unavoidable adverse impacts could occur as a result of the
17 implementation of this decision. These impacts could include an unavailability of training lands
18 due to land rotation for rehabilitation; soil loss and permanently impaired plant growth due to
19 maneuvering with tracked or wheeled vehicles in fragile soils during unfavorable soil moisture
20 conditions, increased noise levels on-post due to demolitions training; increased sedimentation
21 and selenium-levels due to increased training intensity and the use of PCMS for Armor Brigade
22 Combat Team (ABCT), Infantry Brigade Combat Team (IBCT), and SBCT training; a net loss of
23 habitat at the landscape scale associated with large maneuver footprints; increased land and
24 vegetation disturbance and increased impacts to wildlife species resulting from enhanced
25 readiness training (laser targeting, and demolitions training); and a moderate adverse impact to
26 training operations using radio frequency devices due to use of electronic jamming systems.

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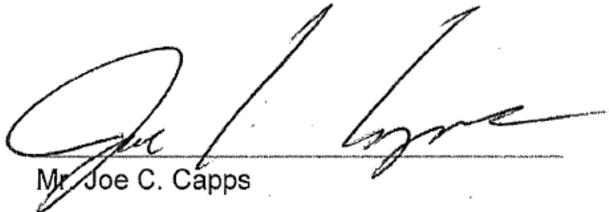
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Mr. Joe C. Capps

1 May 2015
Date

Joe C. Capps
Executive Director
U.S. Army Installation Management Command

1 **ACRONYMS**

2	ABCT	Armor Brigade Combat Team
3	APE	Areas of Potential Effects
4	AR	Army Regulation
5	ATC	Air Traffic Control
6	BAAF	Butts Army Airfield
7	BCT	Brigade Combat Team
8	BMP	best management practice
9	CDOT	Colorado Department of Transportation
10	CEQ	Council on Environmental Quality
11	CFR	Code of Federal Regulations
12	CIG	Colorado Interstate Gas
13	COIN	counterinsurgency
14	CPI	Colorado Prairie Initiative
15	CPW	Colorado Parks and Wildlife
16	DEIS	Draft Environmental Impact Statement
17	DoD	Department of Defense
18	EIS	Environmental Impact Statement
19	FC Reg	Fort Carson Regulation
20	FEIS	Final Environmental Impact Statement
21	GHG	greenhouse gas
22	IBCT	Infantry Brigade Combat Team
23	INRMP	Integrated Natural Resources Management Plan
24	IONMP	Installation Operational Noise Management Plan
25	ITAM	Integrated Training Area Management
26	LRAM	Land Rehabilitation and Management
27	MCOC	munitions constituents of concern
28	MEDEVAC	Medical Evacuation
29	MSL	mean sea level
30	N1MA!	Not One More Acre!
31	NEPA	National Environmental Policy Act
32	NOA	Notice of Availability
33	NOI	Notice of Intent
34	ORAP	Operational Range Assessment Program
35	PA	Programmatic Agreement
36	PCMS	Piñon Canyon Maneuver Site
37	ppb	parts per billion
38	ROD	Record of Decision
39	ROI	region of influence
40	SAR	Species at Risk
41	SBCT	Stryker Brigade Combat Team
42	SCEC	Southern Colorado Environmental Council
43	SHPO	State Historic Preservation Officer
44	SO ₂	sulfur dioxide
45	TC	Training Circular
46	US	United States
47	USAF	U.S. Air Force
48	USFWS	U.S. Fish and Wildlife Service
49	VEC	valued environmental component